WORLDVIEWS ON EUROPEAN NURSING

Edited by
Monika Binkowska-Bury
Małgorzata Nagórska

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Introduction

Professional nursing initiated by Florence Nightingale has come a long way. At present it is considered as a separate field of medicine with a specific scope of knowledge and practice. Professional nursing requires to use that knowledge, constantly enriching it and verifying it thru acquiring practical experiences. Basic nursing abilities has remained unchanged and are the result of its essence. However science development has justified and enriched the scope of nursing actions and implemented to nursing practice new methods and techniques requiring learning additional abilities.

Modern nursing is dynamically developing science discipline, which is proved by science development of this field. Nurse occupation is a regulated occupation, which performance based on law requires possession of professional qualification. The present study is a set of papers from couple European countries and which authors are nurses. It constitutes a valuable reflection on direction of XXI nursing science studies. Reader using this study should be aware of knowledge improving and enriching our occupation. Publication constitutes a forum to present up-to-date science achievements in nursing in different countries and mark out new directions of researches.

Rzeszów, September 2011

Monika Binkowska-Bury, Małgorzata Nagórska
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MENTORSHIP RELATIONS AMONG ACADEMICIAN NURSES IN TURKEY: AN ASSESSMENT FROM THE VIEWPOINTS OF MENTORS AND MENTEES

Serap Altuntaş

Abstract

Introduction: Individuals need support to improve their personal and professional skills and to adapt to their organizational roles, throughout the process of career development.

Aim: The research was conducted in the descriptive and comparative design in order to determine how academician nurses (instructors-research assistants) perceive the mentorship relations among them.

Material and methods: The research was carried out in 10 schools of nursing that offer graduate level of education in Turkey, and the data were collected from those academicians who are employed in these institutions and who admitted to participate in the research. The data were collected from 238 academician nurses through personal information form and mentorship scale. The collected data were assessed using SPSS 11.5 software to run percentage and frequency distribution, Cronbach’s Alpha analysis, ANOVA, t-test, Kruskal Wallis, Mann Whitney U and –for advanced analysis- Tukey HSD tests.

Results: In this research was determined that mentors and mentees consider the relationship between themselves to be mostly a teacher-student relationship. In addition, while mentees evaluated assistant professor mentors more positively, assistant professor mentors constituted the group that evaluated itself in the most negative manner.

Conclusion: This research demonstrated that there exist differences between the opinions of academician nurses (mentors and mentees) on their mentorship relations, that they are unable to interact with each other adequately, and that mentors evaluate themselves more positively than mentees do.

Keywords: Higher education, mentorship, nursing, academician nurse
**Introduction**

Mentorship is generally defined as a relationship of one-to-one support, cooperation and sharing, which is based on volunteerism but not on a pecking order, and in which an experienced expert (mentor) conveys his/her knowledge and experiences and becomes a model to another person (mentee) (Bray and Nettleton, 2007; Ceylan, 2004; Erdem and Özel 2003; Özkalp et al., 2006). Mentorship relations, in addition, constitute a set of reciprocal relationships, which is based on the principles of respect, honesty and commitment, and which involves the tasks of advisor, sponsor, tutor, advocate, coach, protector, role model and guide (Bray and Nettleton, 2007; Burke and Mc Keen, 1990; Ceylan, 2004; Eliasson et al., 2000; Özkalp et al., 2006; Schrodt et al., 2003). The mentee, who is defined with terms such as apprentice, student, pupil, understudy, partner etc., actively shapes his/her development under the guidance of an influential and important person (mentor) (Ceylan, 2004; Çınar, 2007; Eliasson et al., 2000; Vatan, 2009).

It is reported that this relationship improves mentors’ communication skills, helps them acquire new perspectives by refreshing their knowledge, makes them feel pleasure by contributing to others’ development, improves their empathy skills and helps them mature further (Baltaş, 2010; Çınar, 2007; Gibson, 2004; Vatan, 2009). It is suggested that it facilitates mentees’ adaptation to the organizational culture, that it helps them make less mistakes and take more efficient decisions by benefiting from the experiences of mentors, and that it increases their commitment to the organization (Erdem and Özel, 2003; Özkalp et al., 2006). In addition, it is underlined that it prevents mentees from groundless worries, fears and stressful situations, it helps them cope with the situations that inhibit their development easily, it increases their self-reliance and maturity, it improves job satisfaction, motivation, career satisfaction, performance and promotion rates, and it decreases the tendency to resign (Allen et al., 2004; Baltaş, 2010; Bray and Nettleton, 2007; Çınar, 2007; Erdem and Özel, 2003; Özkalp et al., 2006; Penner, 2001; Poteat et al., 2009).

**Mentorship in Higher Education**

In academic environments, research assistants (mentees), who need assistance to advance their careers, are in need of instructors (mentors) especially at the master’s and doctorate levels (Erdem and Özel, 2002; Özkalp et al., 2006; Sevinç, 2001).
The purpose of mentorship in an academic environment is to improve the mentee’s individual, academic and research career, independent from intra-organizational hierarchy. A trained academician or researcher shares his/her own experiences with the mentee, who wants to work or to gain experience in a specific field, by establishing a supportive, intellectual and emotional relationship (Erdem and Özen, 2003; Platin, 2008). This relationship, which is longer than that in other types of organization, makes the academic life easier and accelerates scientific development.

As in all other fields, a quality education in the field of nursing is dependent on the training of new instructors by good mentors and on the effectiveness of the mentoring they will provide to future generations. The finding that nursing students’ willingness to pursue academic career following graduation (Demir et al., 2007; Erkin et al., 2007) indicates that the mentorship process will be more important in the future. The high-quality training of academician nurses, who will train future nurses, will be reflected not only upon the quality of undergraduate education through undergraduate students they will train but also upon the quality of graduate education through graduate mentees they will train. The motivation behind conducting this research is the fact that there exists limited number of studies in the international literature on this subject within the field of nursing and that there is not any studies on this subject in the domestic literature. Determination of mentorship relations among academician nurses will reveal the relationships between mentor and mentee nurses in higher education and, thus, will help detect the negative aspects of these relationships. Therefore, it will be possible to improve the relations among academician nurses who will train future nurses.

In this respect, this study was carried out in the descriptive and comparative design in order to determine how academician nurses (instructors-research assistants) perceive the mentorship relations among themselves.

**Methods**

**Sample:** The universe of the research consists of instructors (professors, associate professors and assistant professors) and research assistants employed in a total of ten schools of nursing that offer graduate education (master’s and doctorate level) in public and private universities in Turkey. Mentorship relations are experienced more intensely in these schools since mentors and mentees are in a close working relationship during graduate education. Therefore,
volunteering instructors (mentors) and research assistants (mentees) employed in these schools were included in the scope of the research. Those instructors and research assistants, who closely work together (mentor-mentee) in these schools and who accepted to participate in the research, constitute the research sample. In these schools, a total of 448 academicians (222 instructors-mentors and 226 research assistants-mentees) worked during the period the research was conducted. However, 238 of 448 academicians accepted to participate in the research.

When the characteristics of the academicians who accepted to take part in the research are examined, it is observed that 23.1% of the mentors (n=77, 32.4%) are assistant professors, 46.8% of them are aged between 41-50, 64.9% of them have nursing experiences of five years or less, 58.4% of them have academic experiences of 15 years or more, and 61% of them mentor two or less research assistants.

Of the mentees (n=161, 67.6%); 51.6% are aged 30 or below, 43.5% are employed in their institutions in order for them to receive graduate education from other universities, 85.7% have nursing experiences of five years or less, 53.4% have academic working experiences of five years or more, 77.6% are at the doctorate level, and the mentors of 59.6% are professors.

**Instruments:** The data were collected through a questionnaire that includes the “Mentorship Scale” and questions aimed at determining their personal and professional characteristics and their opinions about mentorship relations with other academicians (title, age, nursing experience, title of the mentor, the number of mentored research assistants, education level, staff position etc.). The Mentorship Scale was developed by Noe (1988) and its validity and reliability was tested by Özkalp et al. (2006) on research assistants at Anadolu University. This scale, which consists of 30 items and six sub-dimensions (coaching=5 items, taking role model=5 items, self-expression and making oneself visible=5 items, consulting =9 items, gaining acceptance and approval=3 items, friendship=3 items), is of 5-point Likert type (5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree) and its Cronbach’s Alpha value was found to be 0.96. The scale does not contain any inversely-scored expressions and it is evaluated through the sub-dimension mean scores. The scale does not have any negative expressions and it is evaluated through sub-dimension mean scores. An increase in the sub-dimension mean score implies that mentorship relations are good. In this...
study, the Cronbach’s Alpha coefficient was found to be .96 for the entire scale, and to be .73, .85, .91, .90, .90, .81 for sub-dimensions.

**Procedures:** Before the data were collected, the ethics committee approval and institutional permissions were obtained. The data were collected between the dates of June 2009 and January 2010. The researchers went to the institutions that had given permission for the research and they informed academicians about the aim and scope of the research. Then, questionnaires were distributed to those academicians who accepted to participate and they were collected back after they filled them. From 448 academicians taken into the scope of the research, a total of 238 workable data were obtained. Thus, the response rate of the data collection tool was determined to be 53%.

**Data analysis:** The collected data were assessed in the computer environment using SPSS 11.5 software to run percentage and frequency distribution, Cronbach’s Alpha analysis, ANOVA, t-test, Kruskal Wallis, Mann Whitney U and –for advanced analysis- Tukey HSD tests.

**Results**

<table>
<thead>
<tr>
<th>Opinions on mentorship relations</th>
<th>Mentors (Instructors) (n=77)</th>
<th>Mentees (Research assistants) (n=161)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher-student</td>
<td>33</td>
<td>95</td>
</tr>
<tr>
<td>Master-apprentice</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Parent-child</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Employer-employee</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>Mentor-mentee</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Depends on situations</td>
<td>24</td>
<td>9</td>
</tr>
<tr>
<td>(colleague-colleague, adult- adult, sister – brother)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unanswered</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

13
When the opinions of mentors and mentees regarding the relationships among them are examined (Table 1); it is seen that mentees mostly define their relationships with mentors as a relationship of teacher-student (59.0%) and as an employer-employee (hierarchical) relationship (14.2%). Although mentors define this relationship mostly as a relationship of teacher-student (42.9%), they also state that this relationship is contingent upon circumstances (31.2%).

<table>
<thead>
<tr>
<th>Mentors (Instructors) (n=77)</th>
<th>Mentees (Research assistants (n=161)</th>
<th>t and p values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coaching</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td></td>
<td>4.44 ± .61</td>
<td>3.92 ± .95</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taking role model</td>
<td>3.85 ± .72</td>
<td>3.87 ± .92</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-expression and</td>
<td>4.09 ± .69</td>
<td>3.59 ± 1.02</td>
</tr>
<tr>
<td>making oneself visible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consulting</td>
<td>4.55 ± .36</td>
<td>3.92 ± .84</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gaining acceptance and</td>
<td>4.62 ± .51</td>
<td>4.08 ± .88</td>
</tr>
<tr>
<td>approval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendship</td>
<td>3.94 ± .69</td>
<td>3.06 ± 1.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

* p< 0.001  ** p>0.001

When the mentorship scale sub-dimensions mean scores of the mentors and mentees are examined; it is observed that mentors’ sub-dimension mean scores were higher than those of mentees in all sub-dimensions except the sub-dimension of “taking role model”, and that mentors evaluate themselves more positively. It was determined that there exists a very significant difference (p=0.000) between the evaluations of mentors and mentees (Table 2).

When the sub-dimension mean scores of mentors and mentees are compared according to the titles of mentors; it is seen that mentees evaluated mentors with the title of assistant professor more positively in the sub-dimensions of “coaching”, “taking role
Table 3. Comparison of the mentorship scale sub-dimension mean scores of mentors and mentees according to the titles of mentors

<table>
<thead>
<tr>
<th></th>
<th>Mentees (Research assistants) (n=161)</th>
<th>Mentors (Instructors) (n=77)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD) Mean (SD) Mean (SD)</td>
<td>Mean (SD) Mean (SD) Mean (SD)</td>
</tr>
<tr>
<td>Professors (n=96)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate professors (n=20)</td>
<td>3.78 ± .100 4.09 ± .98 4.13 ± .79</td>
<td>4.34 ± .36 4.65 ± .33 4.42 ± .69</td>
</tr>
<tr>
<td>Assistant professors (n=45)</td>
<td>3.80 ± .97 3.96 ± .92 3.98 ± .80</td>
<td>3.87 ± .81 4.30 ± .42 3.76 ± .73</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-expression and making oneself visible</td>
<td>3.44 ± 1.06 3.80 ± 1.08 3.82 ± .84</td>
<td>4.09 ± .38 4.20 ± .74 4.08 ± .74</td>
</tr>
<tr>
<td>Consulting Gaining acceptance and approval</td>
<td>3.76 ± .92 4.20 ± .59 4.14 ± .67</td>
<td>4.60 ± .29 4.59 ± .43 4.54 ± .37</td>
</tr>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendship</td>
<td>2.95 ± 1.14 2.73 ± 1.37 3.45 ± 1.14</td>
<td>3.96 ± .60 4.06 ± .53 3.92 ± .74</td>
</tr>
</tbody>
</table>

* p >0.05, ** p < 0.05
model”, self-expression and making oneself visible” and “friendship”. On the other hand, they evaluated mentors with the title of associate professor more positively in the sub-dimensions of “consulting” and “gaining acceptance and approval”. In addition, mentors with the title of professor were evaluated by mentees more negatively than other mentors in all sub-dimensions. Besides, it was determined that there exist significant differences between groups in the sub-dimensions of “consulting” (p=0.027), “gaining acceptance and approval” (p=0.008) and “friendship” (p=0.025) (Table 3).

When mentors’ expressions about themselves are examined; it is observed that mentors with the title of associate professor evaluate themselves more positively in the sub-dimensions of “coaching”, “taking role model”, “self-expression and making oneself visible”, “gaining acceptance and approval” and friendship”, whereas mentors with the title of professor evaluate themselves more positively in the sub-dimension of “consulting”. Significant difference was found between groups in the sub-dimension of “taking role model” (p=0.049). It was determined that mentors with the title of assistant professor evaluated themselves more negatively, in contrast with mentees’ opinions about them (Table 3).

**Discussion**

In this study, which was carried out to determine mentorship relations among academician nurses, it was determined that the majority of both mentors and mentees define the mentorship relations among them as a relationship of teacher-student. Besides, while some mentees defined this relationship as a hierarchical relationship, some mentors stated that the properties of this relationship differ according to circumstances. In a study that questioned mentors’ role in nursing education, both mentors and mentees stated that the most important role of a mentor is teaching (Bray and Nettleton, 2007).

According to the research findings, mentors and mentees used family-related terms (parent-child, sister-brother etc.) at the lowest frequency while defining the relationships between them. The finding of the study, which was conducted by Eliasson et al. (2000) on female academicians, that mentors’ least important roles are “parent” and “mate” support the findings of the current study. In contrast with these findings, in a study carried out with instructors in higher education, mentees defined their
relationships with mentors using terms like brother, sister and father, and mentors defined this relationship through terms like “close friend”, “drinking buddy” and “friendly neighbor” (Schrodt et al., 2003). It is thought that the difference between these findings stems from gender differences.

While mentors perceive themselves to be inadequate more in being role models, mentees perceive mentors to be inadequate mostly in terms of friendship. In addition, mentors evaluate themselves positively more than mentees do. When the opinions of both mentors and mentees on mentorship relations among academician nurses are considered generally, it can be thought that they are better in the sub-dimensions of coaching, and self-expression and making oneself visible, which constitute the career function of the mentorship relations, and that they are not successful enough in fulfilling the psychosocial function of mentorship. These findings are in parallel with the findings obtained according to mentees’ educational levels. The fact that most of mentees are at the doctorate level indicates that they get more support related to being closer to the “separation” stage of the mentorship relation, to making themselves accepted, and to shaping their careers. In some studies, on the other hand, it was indicated that mentors’ psychosocial roles are not perceived adequately (Eliasson et al., 2000), while research assistants in another study reported that instructors should be more empathetic to them (Sezgin, 2002). This suggests that mentors’ psychosocial aspects need to be improved.

When the opinions of mentors and mentees are considered according to mentors’ titles, mentees evaluated those mentors who have the title of assistant professor more positively, whereas they evaluated mentors with the title of professor most negatively in all sub-dimensions.

Among the mentors, in contrast with mentees, mentors with the title of assistant professor evaluated themselves most negatively, whereas mentors with the title of associate professor constituted the group that evaluated itself most positively. Since assistant professors are closer to mentees in terms of academic level, this finding might be a consequence of the fact that mentees felt intimate with them and shared with them more. Moreover, lighter workloads of assistant professors might have given them opportunity to allocate more time to mentees. Mentees might have evaluated their relations with professors more negatively since professors had less time to allocate to mentees as their workloads are heavier and they participate more in scientific meetings. It is thought that assistant professors did not consider themselves to be adequate in
mentoring since they just passed from the position of mentee to that of mentor. On the other hand, professors’ negative opinions about their adequacy in mentorship are similar to the opinions of mentees about themselves.

**Conclusion**

This research demonstrated that there exist differences between the opinions of academician nurses (mentors and mentees) on their mentorship relations, that they are unable to interact with each other adequately, and that mentors evaluate themselves more positively than mentees do. It could be suggested according to the research findings that efforts should be made to alleviate the lack of interaction among academician nurses and that necessary improvements should be made by periodically assessing the mentoring process in order to render this relationship more effective. Further studies can focus on the problems that academicians experience in mentorship relations.

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BURN-OUT - PERSISTENT PROBLEM (NOT ONLY) IN NURSING

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Abstract

Introduction Review of the literature shows that nurses are in their work exposed to multiple stressors such as aggressive behavior of patients or work overload, which affect the development of burnout syndrome. Nursing is one of the occupations with the highest prevalence of burnout.

Aims of the study were to determine the incidence of burnout in sample of nurses; determine in which age group of nurses burnout occurs more frequently; determine whether burnout occurs more often in nurses with longer work experience.

Material and methods 102 nurses participated in the study (mean age 36.09; SD= 7.67; 97.1% females). Burnout Measure was used for evaluating the presence of burn out syndrome.

Results Average score of burnout was in our sample 3.07 (SD = 0.75), while the values ranged from 1.67 to 4.67. In total of 9 (11.34%) nurses presence of burn-out syndrome was determined. There were no significant differences in Burn out index among groups according to age or length of praxis.

Conclusions Given the impact that the development of burnout in professional and organization, its prevention is a challenge for health care facilities. In connection with this issue, we suggested some activities for practice that may help to prevent development of burn out syndrome.

Key words: Burn-out, nurses, length of praxis, age

Introduction

Burnout is associated with a particular form of chronic job stress (Maslach and Jackson, 1981), produced by high emotional strain present in interpersonal relationships within
organizations (Maslach and Schaufeli, 1993). Specifically, burnout is a psychological syndrome characterized as a feeling of overload and exhaustion of emotional and physical resources (emotional exhaustion), the development of negative, heartless, or excessively detached responses to various aspects of work (cynicism or depersonalization), and feelings of incompetence and lack of performance and productivity (Maslach et al., 2001). Pines and Aronson (1988) define burnout as a state of physical, emotional and mental exhaustion caused by long-term involvement in the situations that are emotionally demanding. Physical exhaustion is characterized by the loss of energy, chronic fatigue, weakness, etc. Emotional exhaustion includes primary feelings of helplessness, hopelessness and being trapped, etc. Mental exhaustion is characterized by developing negative attitudes towards oneself, work, life, etc.

Job burnout has been primarily studied in service organizations that work in direct contact with clients, such as medical organizations. It is because these professional groups are considered as more vulnerable to burnout, due to the emotional involvement needed to care for other people. Specifically in the field of health services, the authors of some studies found that about 8% of cases of occupational diseases refer to symptoms of burnout (Sundin et al., 2006). In this sector, work-related stress provides a wide field of applied studies, including topics from identifying the epidemiological variables to develop prevention and intervention strategies. Review of the literature shows that nurses are exposed to multiple stressors (Lambert et al. 2004; Potter, 2006) such as aggressive behavior of patients (Needham et al., 2005) or work overload (Leiter, 2005), that affect the development of burnout syndrome. Nursing is one of the occupations with the highest prevalence of burnout (Demerouti et al., 2000). Pines and Keinan (2005) considered the main causes of burnout of nurses as follows: witnessing human suffering being unable to help; a big patient load that affects the quality of the work; the suffering of people where is no way to help; daily confrontation with suffering, pain, old age and death; helplessness when confronting lost cases; not enough control over patient care; lack of administrative support; lack of resources to do the work right.

Some studies focused on nurses concluded that the core of burnout is emotional exhaustion and depersonalization (Bakker et al., 2005), although other authors point to a low sense of personal achievement produced by the growing disillusionment (McGrath et al. 2003; Piko, 2006, Schmitz et al. 2000). Symptoms of burnout can produce health problems for nurses
(Leiter, 2005), as well as feelings of guilt, and may also increase the rate of absenteeism (Gil-Monte, 2008).

Prospective studies on the determinants of burnout show that high emotional requirements, high demands for hiding emotions, quantitative requirements, high work pace, the opportunities to develop small, low sense of work, low predictability and clarity of roles, frequent conflicts of roles, are significant predictors of burnout (Kalima et al. 2003; Vegchel et al., 2004).

**Objective**

The main aims of our study was to determine the incidence of burnout in sample of nurses; determine the age group of nurses when burnout occurs more frequently; determine whether burnout occurs more often in nurses with longer work experience.

**Sample and methods**

The sample included 102 nurses working in the nursing profession. The average age was 36.06 years (SD = 7.67), the minimum age was 23 and maximum 52 years.

In a group of participants women dominated (only 3 men), therefore, we present results, irrespective to gender. Five questionnaires were excluded from the assessment due to lack of questionnaire data.

**Table 1 Age distribution of respondents**

<table>
<thead>
<tr>
<th>Age(years)</th>
<th>under 30</th>
<th>31-40</th>
<th>41-52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number(n)</td>
<td>24</td>
<td>37</td>
<td>23</td>
</tr>
</tbody>
</table>

The highest number within our sample covers nurses at the age of 31 – 40. The groups of nurses who are younger than 30 and older than 41 are characterized by approximately the same numbers.

**Table 2 Respondents in terms of length of work experience**

<table>
<thead>
<tr>
<th>Length of work (years)</th>
<th>&lt; 5</th>
<th>6-10</th>
<th>11-15</th>
<th>16-20</th>
<th>21-25</th>
<th>26-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (n)</td>
<td>20</td>
<td>17</td>
<td>14</td>
<td>15</td>
<td>14</td>
<td>13</td>
</tr>
</tbody>
</table>
The average length of work within the sample is 14.5 (SD=7.67). The longest length of work referred to 35 years and the shortest to 1 year. The data collection we conducted by means of a standardized questionnaire Burn-out measure drawn by Pines and Aronson. The questionnaire contains 21 items, of which 17 items are aimed to diagnose negative symptoms and 4 items describe positive emotions. To evaluate each item of the seven-figure range with the verbal description were used: from (1) never to (7) always. The data were processed with the assistance of the key. This questionnaire evaluates all three levels of burnout - physical, emotional and mental. Reliability of this questionnaire was 0.81.

Results

Average score of burnout was in our sample 3.07 (SD = 0.75), while the values ranged from 1.67 to 4.67. In total of 9 (11.34%) nurses presence of burn-out syndrome was determined.

Table 3 Scored results referring to the length of praxis

<table>
<thead>
<tr>
<th>Length of work</th>
<th>Score range</th>
<th>&lt; 2</th>
<th>2 - 3</th>
<th>3 - 4</th>
<th>4 - 5</th>
<th>Σ</th>
<th>Mean BMI</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5</td>
<td></td>
<td>1</td>
<td>10</td>
<td>9</td>
<td>0</td>
<td>20</td>
<td>3,03</td>
<td>0,63</td>
</tr>
<tr>
<td>6-10</td>
<td></td>
<td>1</td>
<td>10</td>
<td>4</td>
<td>2</td>
<td>17</td>
<td>2,94</td>
<td>0,90</td>
</tr>
<tr>
<td>11-15</td>
<td></td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>14</td>
<td>2,86</td>
<td>0,91</td>
</tr>
<tr>
<td>16-20</td>
<td></td>
<td>0</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>15</td>
<td>3,34</td>
<td>2,38</td>
</tr>
<tr>
<td>21-25</td>
<td></td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>14</td>
<td>2,98</td>
<td>0,69</td>
</tr>
<tr>
<td>26-35</td>
<td></td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>13</td>
<td>3,46</td>
<td>0,74</td>
</tr>
<tr>
<td>number</td>
<td></td>
<td>5</td>
<td>45</td>
<td>36</td>
<td>11</td>
<td>97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>5,15</td>
<td>46,39</td>
<td>37,11</td>
<td>11,34</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Scores below 2, which is considered as a good condition, were reached by 5 respondents (5.15%) of 97. Scores between 2 to 3, assessed as satisfactory state, reached 45(46.39%) nurses. Score from 3 to 4, designated as a state when it is necessary to reflect on their lives and work of the meaningfulness of your life, clarify your value system gained 36(37.11%) nurses. Scores between 4 to 5 indicate the presence of burnout and made by 11 nurses from practice (11.34%). Score higher than 5, i.e. state 'burning and burn-out of resources ", gained no respondents. The group of nurses whose praxis lasted less than 30 years referred to the average score 3.03.

At the same time, no respondent reached the score over 4 that deals with presence of the burn-
out syndrome. Groups of nurses whose praxis lasted for 11 -15 and 21-25 showed similar results. The same number of burnt-out nurses was gained. The highest number of the burnt-out nurses (the score was more than 4) can be found within the group where the length of work was 26-35 years. Differences between particular groups were not statistically significant.

Table 4 Scored results referring to the age of respondents

<table>
<thead>
<tr>
<th>Age(years)</th>
<th>BM index</th>
<th>SD</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>under 30</td>
<td>2,94</td>
<td>0,66</td>
<td>1,9</td>
<td>3,86</td>
</tr>
<tr>
<td>31-40</td>
<td>3,18</td>
<td>0,73</td>
<td>1,71</td>
<td>4,62</td>
</tr>
<tr>
<td>41-52</td>
<td>2,99</td>
<td>0,79</td>
<td>1,67</td>
<td>4,43</td>
</tr>
</tbody>
</table>

The average value of the BM index in nurses between the age 31 to 40 was higher than those before 30 years of age or those who are over the age of forty. However, the difference between recorded values is not statistically significant.

Discussion

The results of our research show that in approximately 11% of our participants the burnout is present. Kovářová et al. (2005, In Rybárová, Stejskalová, 2010) have participated in a multicenter study of NEXT and the target set contained of 32 850 nurses from 10 countries within the European Union. The results showed that in the investigation file, each 4th nurse suffered from a high degree of burnout, which the author relates to the inability to provide care, which patients really need, respectively that nurses are not satisfied with psychological support in their workplace.

The results of the prospective study realized by Jirmanová (2008, In Rybárová, Stejskalová, 2010), attended by 50 nurses showed that nurses are not in the state of burnout, but rather of exhaustion, overwork and pressure sensation, which is placed on nurses in demanding departments.

In the year 2005-2006 a research study, which dealt with the vulnerability to burnout in nurses and teachers (n = 50) was carried out. The results showed that both professions are equally vulnerable to burnout. Nurses achieved average BMI = 3.11 and BMI = 3.10 teachers. For nurses the risk of burnout syndrome decreases with age, while increases in teachers (Mičkerová et al., 2006). Also the research of Haškovcová (2004) showed that with increasing
age increases the number of nurses, which are vulnerable or actually suffering from burnout. According to this study age group 18-29 years is in higher risk because of greater vulnerability and lack of experience in dealing with unusual situations. In our research, this was not confirmed as no participant in this age group reached the BM index higher than 4, which would indicate the presence of burnout. Another research study (Hlaváčková and Novotná, 2006) showed that age group 31-45 years is the most at risk - it may have to do with a midlife crisis when one considers the deeper meaning of life. Despite we did not find any significant differences among groups according to length of praxis, some research results suggest that the length of praxis plays relevant role in the burnout syndrome development.

**Conclusion**

Given the impact that the development of burnout in professional and organization, its prevention is a challenge for health care facilities. Being aware of burnout helps managers of health organizations to determine dimensions of the problem inside the organization and develop appropriate intervention programs. In connection with this issue, here are some suggestions for practice: to realize ones responsibility for health, to organize for nurses seminars and discussions on practical ways of coping with emotional stress burden, to deepen cooperation with counselors (psychologist, supervisor, etc.); to comply with regulations and prevent psycho-mental stress relaxation techniques, to practice the appropriate techniques of coping with stress, to pay more attention to stressors in nursing practice, increase awareness of the concept of nurse burnout and psychological stress, revision of management in the workplace; maintained in good physical condition active and healthy lifestyle.

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TYPE D PERSONALITY IN NURSING PROFESSION

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Abstract

Introduction The very specific character of jobs involving helping people demands not only on their expertise, but also their personality. Type D personality concept, that includes high negative affectivity and high social inhibition, plays an important role as a risk factor, etiologic and prognostic factor and factor of the ischemic heart disease.

Aim of the study was to determine the incidence of type D personality in a sample of nurses.

Method and subjects The sample consisting of 105 nurses of the average age 36.09, (SD=7.67). The sample was used to judge the negative affectivity, social inhibition and Type D personality by means of the questionnaire DS 14 by J. Denollet (2005).

Results In negative affectivity subscale, respondents achieved the average score 10.26, while in social inhibition subscale the mean score was 10.54. Using a standardized cut-off score ≥ 10 on both the negative affectivity and social inhibition, we identified 31 nurses (35%) as Type D personality.

Conclusions When doing our research, we came to the conclusion that there are high risk personality factors present within type D personality concept. The point is that the particular sample of nurses was influenced by the variety of stressors emerging when doing the job. We feel an urgent need in prevention focused on decreasing presence and consequences of risk factors in a broad population.

Key words: type D personality, negative affectivity, social inhibition, nurses
Introduction

Professional help is usually sought when other ways, in which people solve their problems, for various reasons (personal or social), fail or lack (Úlehla, 2006). In addition to expertise, there is another element, which plays a very important role in helping relationship - the link between helping professionals and their clients. This idea is contained in the widespread perception that, in these professions, the worker's personality is the main tool (Kopřiva, 2006).

In literature we can find various personality assessment approaches. Given the focus of helping professions, we consider as particularly important personal connection with stress and its possible consequences for health. In connection with the negative effects of stress "distressed" or type D personality has been discussed. Various concepts has been described in association with a higher risk of disease, particularly ischemic heart disease. Primarily, it is A-type behavior, the concept of type D and type C personality. It should be noted that this is not a comprehensive personality typology, but same trends in behavior and survival, which are risky for the occurrence of some diseases (especially cardiovascular).

A type of behavior is characterized by hostility, impulsiveness, competitiveness, desire for success, great ambitions, excessive activity, increasing unrest, and insensitivity to environment (for people and their needs), accelerated speech, collecting things (Křivohlavý, 2002). People with this type of behavior are impatient, excessively time-conscious, insecure about one's status, highly competitive, hostile and aggressive, and incapable of relaxation. This type is more common in people with cardiovascular problems and it is associated with a higher cardiovascular mortality. However, research focused on this type of behaviour has brought very inconsistent results (Denollet, Brutsaert, 1998) that challenge this connection.

Type C personality has been connected with dimension rationality – antiemotionality. People with this personality type tend to avoid conflicts by suppression of their emotions. They are characteristic of concrete thinking, poorly developed imagination, colorless speech, emptiness in interpersonal relationships. Studies suggest that this concept refers to a higher incidence of cancer.

Type D personality construct was developed by Johan Denollet and his colleagues. It is based on two broad and stable traits: negative affectivity and social inhibition. Negative affectivity denotes the tendency to experience increased negative distress across time and situations. It overlaps with neuroticism and trait anxiety; includes subjective feelings
of tension, worry, anxiety, anger and sadness. It has a major impact on the emotional status. **Social inhibition** refers to the tendency to inhibit the expression of negative emotions in social interactions. Inhibited individuals feel insecure among other people, often lack assertiveness and are less talkative. Individuals who have high social inhibition, while high negative affectivity are classified as "distressed" or type D personality, because of their susceptibility to chronic distress (Denollet, 2005).

People with type D tend to worry, to take a gloomy view of life, to feel tense and unhappy, are easily irritated, less likely to experience positive mood states. They are also less likely to share the negative emotions with other people for fear of rejection and disapproval; they have fewer personal ties with other people and tend to feel uncomfortable when with strangers.

People with type D personality are vulnerable to several health complications. Type D personality is a predictor of cardiovascular diseases (4-times greater risk of disease to heart disease and death in these diseases, Ďurka, 2006). Type D has a strong prognostic value in regarding overall mortality, cardiac mortality, as well as in patients with heart failure. Type D personality is also a prognostic factor for the emergence of malignant disease in people with coronary heart disease. There is also higher risk of developing of posttraumatic stress disorder, vital exhaustion symptoms and higher blood pressure. Psychological risk factors including depression, anxiety (Borkoles et al., 2009; Pedersen et al., 2009), irritability, low self-esteem, wellbeing and positive emotions may also cumulate (Denollet, 2005). Oginska-Bulik (2006) also stated that in type D individuals is a higher frequency of symptoms of mental disorders and a higher incidence of burnout. Adults with Type D personality also report a significantly lower health status compared to non-type D’s (De Fruyt, Denollet, 2002).

In our research, we had a target group of nurses because of their daily contact with particular people in need, in a dependent position, which require more than just politeness: acceptance, participation and understanding. In difficult circumstances (e.g. illness), people become more sensitive to stimulus from the environment. Hostile behavior, together with social inhibition, may influence patient-nurse relationship very negatively.

Results of several studies (e.g. Mlčák, 2005; Kopřiva, 2006) confirmed that the clients evaluate helping professionals with particular communication, interaction and personal characteristics.
Achieved results clearly demonstrate importance of essential personality traits in helping professionals, in particular empathy, respect, authenticity, specificity and care. Also, affection, patience, kindness, trustworthiness is important and appreciated (Kopřiva, 2006; Matoušek, 2003). These characteristics are very different from the type-D personality, characterized by high negative affectivity and social inhibition at the same time high.

The main aim of this study was to determine the incidence of type D personality in sample of nurses.

Methods

The Type D Scale-14 (Denollet, 2005) was used to assess NA, SI, and Type D personality. The DS 14 consists of two subscales: the negative affectivity subscale (NA) and social inhibition subscale (SI). Both subscales contain seven items. Subjects rated each item on a 5-point Likert scale ranging from 0 = false to 4 = true. The NA and SI subscales can be scored as continuous variables (range, 0–28) to assess these personality traits in their own right. A cut-off score of ≥ 10 on both subscales is used to classify subjects as Type D. Both subscales have high internal consistency, with Crombach’s $\alpha=0.88$ for the NA subscale and $\alpha=0.86$ for SI subscale.

Subjects

The sample included 102 nurses working in the nursing profession. The average age was 36.06 years (SD = 7.67), the minimum age was 23 and maximum 52 years; mean length of praxis was 14.53 years (SD= 8.84; range from 1 to 35). 14 questionnaires were excluded due to incomplete fill out (88 questionnaires were valid).

Results

Average respondent’s values that were gained within the subscore of Negative affectivity referred to 10.26 (SD=6.16; range from 0 to 26) and value 10.54 (SD=5.59; range from 0 to 22) referred to the subscore of Social inhibition.
Using a standardized cut-off score ≥ 10 on both the negative affectivity and social inhibition, we identified 31 nurses (which represents 35% of 88 respondents) as Type D personality. The remaining 57 (65%) subjects did not reveal this type of personality.

**Discussion**

A total number of 31 nurses, representing one third (35%) of the total of respondents (n = 88) has been identified as "distressed" or type D personality, characterized by high social inhibition, while high negative affectivity. Relatively high incidence of Type D personality in the population of helping professionals was found out in various studies. Ogińska-Bulik (2006) indentified in her study 22/79 (27.8%; mostly women) as Type D personality in the examined group contained of healthcare workers (nurses and psychiatrists). Similarly, Ďurka (2008, 2007) described 36.6%, and 28.6% respondents with type D personality in a groups of teachers. Ďurka (2007) explains the fact on a basis of many stressors causing negative emotions in nurses. They are not able to express their negative emotions via socially acceptable behavior or they often experienced refusal from their environment after they had expressed their emotions. The opinion is confirmed in particular items referring to D type. In negative affectivity subscale, which represents tendency to experience negative emotions across time and situations, respondents gained the average score 10.26, while in social inhibition subscale, focused on tendency to suppress expression of emotions and behaviour in social interaction, the mean score was 10.54. The level of both dimensions of Type D personality crossed the cut-off point 10. We came to the conclusion, that respondents tend to experience negative emotions and they are not able to express them. Professional competences of people working in helping professions should include emotional resistance and the ability to cope with negative emotions. Therefore we consider various forms of practical training aimed at coping with negative emotions such as anxiety, hostility, anger, and overall stress as very important.

Although we are aware of the low number of respondents involved in our study, we can assume that the problem of high personality risk factors contained in the type D personality applies to all helping professions.

**Conclusion**

Helping professions are demanding on personal characteristics of people working in this area. Risk factors included in D type personality refer to negative affectivity and social inhibition.
Both factors can negatively influence one’s health as well as his labour efficiency. High presence of these factors that were recorded in nurses, points out the necessity to study such issues. Not only patients with cardio vascular diseases must be taken for granted in further studies. Both sufficient awareness and early prevention provide us with possibility to reduce negative health consequences. Modification of personality traits (aimed at both reducing tendency to experience negative feelings and enhancing skills to express them) is also desired. Assertiveness and training of conversation skills may equip healthcare employees with a repertoire of interpersonal behaviours, which may be helpful in coping with job stressors. Social support also seems to be very important in protecting healthcare workers from negative consequences of job stress, especially emotional exhaustion.

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INTERVENTION RESEARCH OF COMMUNITY NURSING CARE

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Abstract

The goal of the research was to find out the opinions of adult population and health care workers (physicians and nurses) on the issue of community care with regard to the nurse’s position in community care and the possibility of use of her competences on the base of representative quantitative research made on a selected set of 1007 physicians, 1005 nurses and 2022 citizens. Additionally to the quantitative research, discussion was held with representatives of health care trade unions in individual regions and representatives of individual health insurance funds. Based on the analysis of the investigation results, comparative analysis of community care in selected EU countries and discussions with representatives of regions and health insurance funds, a recommendation draft was elaborated. General standards of nursing care were created too. It was intervention research with gnoseological goals, but the main goal was to implement community nursing care into the existing health care system of the Czech Republic. The research was implemented in the scope of the research project IGA MZ ČR NS 9608-3.

Key words: Community care – Lay public – Physician – Nursing – Nurse

Introduction

In the Czech Republic, systematic and planned community care is actually not implemented at present, although the legal tools of regulation of practice of profession have been prepared already. Czech nurses are not integrated in the population-oriented preventive care within public health protection either; but that activity is included in the contents of activities workers of public health protection in the Czech Republic, particularly within the activity of health care institutes, but the situation is not satisfactory there either. At present, the greatest challenge for nurses consists in the missing role of nurse in care for seniors, i.e. in an activity focused on searching risk persons, on education and support of care of close persons and on suggestions and coordination of suitable health and social services.

In the Czech Republic, nurses active in home nursing care or nurses active within primary medical care, i.e. in offices of general practitioners for adults or for children and youth are perceived as nurses active in community care. But the roles of those nurses are narrower as compared to the roles of community nurses; therefore those nurses cannot be
considered community nurses in the above stated sense. The systematic provision of care is not supported by the organizational separation of preventive role of nurse (general practitioner’s nurse) from intervention activities of nurse in home care and by the bond of the activity of the nurse in primary care exclusively to the physician's office because the physician may not have and usually does not have a territorially heterogeneous group of patients.

Nurses active within home nursing care in the current system can fulfil only the interventional function; besides, actually only in cases when the care is indicated by the physician. According to the current legal regulation, every nurse qualified for practice of profession without professional supervision on the Czech territory, i.e. registered nurse, can become nurse providing home nursing care. Specialized qualification is required only for some activities, like indication of a suitable method for treatment of chronic wound (§ 53, Decree No. 424/2004 Coll.), long-term home artificial lung ventilation (§ 49 par. 4, Decree No. 424/2004 Coll.) or some nursing interventions made to children (§ 51 Decree No. 424/2004 Coll.). So from the perspective of legal requirements on regulation of profession, no additional training or practice is required for the role of nurse in home nursing care, although both things can play a role in competitive tendering organized by the region or in selection of contracting partner by the health insurance fund. The nurse in home care is organizationally independent of the physician in most cases; she implements her activity typically within an independent nongovernmental health care facility. But her role is not completely independent. From the perspective of legal regulation of practice of profession, the nurse is qualified to perform the activities with character of exclusive nursing care, without the physician's indication, i.e. completely independently only based on her own assessment of the patient's needs (e.g. care for patency of upper airways, treatment of stomas or chronic wounds, education) (§ 4 par. 1 Decree No. 424/2004 Coll.). She is qualified to perform activities included in the physician’s curative or diagnostic care only based on the physician's indication (she needs the physician's indication e.g. for any application of a curative preparation, including the over-the-counter ones) (§ 4 par. 3 Decree No. 424/2004 Coll.). But it must be stressed, from the perspective of actual provision of nursing care in economic conditions of the Czech Republic, that if the home nursing care is to be paid from public health insurance, it must always be indicated by the physician.

So, *de facto*, the nurse in home nursing care is fully dependent on the assessment and indication of care by the physician. A limit to further development of this segment of care consists also in the chronically low payments from public health insurance.
At present, the nurse’s activity within primary medical care does not include systematic approach so indispensable for complex community nursing care. On the contrary, in recent 20 years even the nurse activities focused on preventive care for the health of the community, routinely and successfully fulfilled in the preceding health care system, i.e. particularly preventive visits of children’s nurses to families or midwives to expectant mothers, have been gradually restricted or eliminated in primary care; the role of geriatric nurses was completely cancelled without corresponding substitution. In some offices of primary care physicians, the activity of the nurse in care for the health of the community is reduced virtually only to sending out of invitations to vaccination or preventive checkups. So the potential of nurses active in primary medical care is by far not fulfilled at present; but the existence and professional experience of those nurses constitutes a great opportunity for the development of a true community nursing.

A problem consists also in the separation of the system of health and social care from economic and organizational point of view, as well as in the regulation of practice of the profession. The role of nurse corresponding to the British health visitor who is responsible for searching risk persons and coordinating complex health and social services within the community has not been fulfilled by Czech nurses after the cancellation of the geriatric nurses; at present, social workers are directed to this activity to a large degree. But social workers mostly do not have sufficient health care education to be able to fulfil the role of coordinators of health and social care, and their activity is not implemented comparably in all towns and villages, because of missing standards of availability of public services. The extent and systematic character of the services depends on local initiative and good support of local or regional public administration.

The legal regulations governing the practice of health care professions on the Czech territory define further two groups of health care professionals: nurses – specialists for community care (community nurses) and assistants of public health protection (formerly assistants of sanitary service). The specialization of community nurse was legally confirmed in 2004; it has been educated only recently. Her competence defined by legal regulations includes provision of primary care, including care in the own social environment of the individual or the family; it has strong preventive accent and includes also searching of and care for endangered groups. So the Czech Republic has suitable legal environment for introduction of the function of true community nurse; a limit consists in absence of the system of payment of such care, both from public health insurance and from other public sources. The Czech Republic does not have a standard of public services; a possible establishment of community nurse is only up to the voluntary approach of individual villages, towns or regions. So it is not surprising that the system of community nurses does not exist.

**Goal of the work**

The goal of the research is to find out the opinions of adult population and health care workers (physicians and nurses) on the issue of the nurse’ position in community care and the possibility of use of her competences on the base of representative quantitative research. Based on such inquiry, comparative analysis of community care in selected EU countries, to hold discussion with representatives of health care trade unions in individual regions and with representatives of individual health insurance funds and to implement the ascertained results into practice.
Set and methodology

The selection set consisted of 1007 physicians, 1005 nurses and 2022 citizens. The respondents were selected by random selection with the help of quotas. The parameters of selection of health care workers (nurses and physicians) were constructed based on the data of the Institute of health care information and statistics (Ústav zdravotnických informací a statistiky) of the Czech Ministry of Health, valid by 31.12.2007. The selection of the set of citizens was determined by the data of the Czech Statistical Bureau (Český statistický úřad).

The medical public was represented by 47,3% men and 52,7% women. By age, the age group of 45-54 years (40%) had the highest representation.

Nurses were represented by 96,8% women, while 3,2% of the set were men. By age, the age category under 34 years (31%) was represented most frequently.

The group of lays (citizens) consisted of 48,2% men and 51,8% women. The ascertainment of opinions of lay and professional public was implemented with the help of the technique of structured interviews. Each respondent was informed about the purpose of the research and familiarized with the interviewer sheet. The participation in the research inquiry was voluntary, based on informed consent.

The data collection took place through professional interviewer network. The inquiry of physicians and nurses was performed by 201 interviewers, the inquiry of the public by 405 interviewers from all over the Czech Republic. Each interviewer had passed detailed briefing.

The data were processed by the SASD (Statistical Analysis of Social Data) program, version 1.4.4. The 1st degree of classification and contingency charts of the 2nd degree of classification were processed. The level of dependence was established based on Chi2 and other testing criteria (according to the character of attributes).

Results and interpretation

The concept of “community nurse” is not usual in the practice of Czech health care. It can be differently perceived in different target groups. Therefore one of the goals of the research was to ascertain what the professional public represented by physicians and nurses sees under that concept. That issue was not ascertained among the citizens because the researchers supposed that lay public would not know the concept. The question was asked as close-ended, in the following wording: “What statement gives a true picture of the concept of
community nurse, in your opinion? 1) nurse working in field (outside the health care facility) with both healthy and ill people; 2) nurse working in field (outside the health care facility) only with ill people; 3) nurse working in field (outside the health care facility) only with old people; 4) I don’t know, I have never heard this concept.”

Diagram 1 – Perception of the concept of “community nurse” by professional public (in %)

N = 1007 (physicians); N = 1005 (nurses)

The perception of the concept of “community nurse” by physicians and nurses is virtually identical. More than ¾ of the respondents from both target groups perceive the community nurse as somebody working in field (outside the health care facility) with both healthy and ill people. Only less than 1/10 of physicians and nurses are not clear about the concept and do not know what they should imagine under it. Other about 1/10 think that it is a nurse working in field only with ill people; only a minimum thinks that it is a nurse caring for old people.

The perception of this concept is virtually homogeneous within the individual groups (physicians and nurses) and from the perspective of the analyses processed based on the second degree of classification, no statistically significant connections between the opinions on this question and individual socio-demographical features were ascertained.
One of the key moments of the research consisted in the question to what level the professional and lay public feels the need of activity of nurses in community care and whether they consider such activity possible at all. With regard to the fact that the lay public does not have exact idea of the essence of the nurse’s activity in community care, the opinion of the lay public was ascertained through a projective question. Its wording was as follows: “It is common for nurses abroad to work independently in field, in the environment where people live (family - home, school, job), performing visit service. They provide specific care to children, families, seniors, handicapped persons and their family members. An important task is to search and work with risk groups of citizens. They care for the person from birth, but also in the time when the person’s life ends. Do you think it is possible for nurses to perform such independent activity in our country? 1) definitely yes; 2) rather yes; 3) I don’t know; 4) rather not; 5) definitely not”.

Diagram 2 – Opinion of citizens on independent activity of nurses in community care

The opinion of citizens of the Czech Republic on the possibility of independent activity of nurses in community care is relatively unambiguous. Most of them (62,3%) believe rather or definitely that nurses could perform independent activity in community care in the Czech Republic; other 26,7% do not have clear opinion on this matter. Only 11,0% citizens of the Czech Republic mean rather or definitely that nurses should not perform independent activity in community care.
Women have more decided opinion on this issue, they would welcome independent activity of nurses; men are not clear about this issue more frequently and choose the “I don’t know” answer.

An important condition of introduction of the community nurse function and its practical application is the knowledge of possible obstacles preventing the implementation of independent care of community nurses.

For better clarity and determination of sequence and significance of individual obstacles to independent care of community nurses, an index (weighed arithmetic mean) was calculated for each of them and, based of its value, the order of obstacles was processed by the importance assigned to them by the professional and lay public. It applies that the lower the value of average, the bigger weight is assigned to the obstacle.

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>Physicians</th>
<th>Nurses</th>
<th>Citizens</th>
<th>Physicians</th>
<th>Nurses</th>
<th>Citizens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unclear funding</td>
<td>1.297</td>
<td>1.373</td>
<td>1.482</td>
<td>1.</td>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>Financial burden</td>
<td>1.355</td>
<td>1.426</td>
<td>1.488</td>
<td>2.</td>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>Difficult cooperation with health insurance funds</td>
<td>1.392</td>
<td>1.442</td>
<td>1.512</td>
<td>3.</td>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>Issue of legislation - codification</td>
<td>1.429</td>
<td>1.451</td>
<td>1.610</td>
<td>4.</td>
<td>4.</td>
<td>4.</td>
</tr>
<tr>
<td>Establishment of nurse competences in the Czech Republic</td>
<td>1.480</td>
<td>1.470</td>
<td>1.671</td>
<td>5.</td>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>Current closed families refusing entry into their homes</td>
<td>1.689</td>
<td>1.645</td>
<td>1.713</td>
<td>7.</td>
<td>7.</td>
<td>7.</td>
</tr>
<tr>
<td>Lack of openness to changes</td>
<td>1.752</td>
<td>1.715</td>
<td>1.711</td>
<td>8.</td>
<td>8.</td>
<td>6.</td>
</tr>
<tr>
<td>Distrust of nurses’ abilities by lay public</td>
<td>1.929</td>
<td>1.950</td>
<td>1.885</td>
<td>10.</td>
<td>13.</td>
<td>11.</td>
</tr>
<tr>
<td>Overlap of competences with physician’s competences</td>
<td>1.950</td>
<td>1.741</td>
<td>1.874</td>
<td>11.</td>
<td>9.</td>
<td>10.</td>
</tr>
<tr>
<td>Lack of cooperation among professionals</td>
<td>2.030</td>
<td>1.822</td>
<td>1.849</td>
<td>12.</td>
<td>10.</td>
<td>9.</td>
</tr>
</tbody>
</table>
The following obstacles ranked on the first five places in all groups in identical order: unclear funding, financial burden, difficult cooperation with health insurance funds, legislation questions – codification and establishment of nurse competences in the Czech Republic. All groups agree also on further three obstacles; their order is identical among physicians and nurses, altered among citizens. It is the issue of employer, the fact that the current closed families refuse entry into their homes and general lack of openness to changes. All target groups assign importance to such obstacles as well.

The professional and lay public considers the questions of financial character the main obstacle to implementation of independent care of community nurses. In this connection, it was also ascertained in the target groups representing the professional public who should be responsible for funding the nurses' work in community care.

The physicians and nurses agree that the activity of community nurses should be funded particularly by the state (54,0% physicians and 52,5% nurses). This opinion prevails unambiguously in the observed target groups. Smaller part of the respondents think that the
organization in which those workers work should fund their activity (12.8% physicians and 18.2% nurses). The third most widespread opinion is funding by the region (13.6% physicians, 10.8% nurses); other opinions are less represented.

**Conclusion**

The main motives leading to higher need of community care in recent years include aging of the population, changing family structure, development of technology in field care and the fact that the patients are not passive recipients any more but that they cooperate and are much better informed.

According to the World Health Organization, the nurses’ roles within community care include not only provision of direct health services to population, i.e. actual nursing interventions, but also coordination of health and social care, including searching risk persons, particularly seniors, identification of endangered groups in the community, preparation of suitable preventive programs and their implementation in the community (prevention of abuse of addictive substances among children within schools or programs supporting breast feeding within the community), as well as consulting activity for individuals and families within support to healthy lifestyle (WHO 2000, 2003).

Based on the analysis of the inquiry results, interest of both professional and lay public in community nursing can be stated. The legal tools of regulation of practice of the profession of community nurse are prepared already. Conditions for the development of the new discipline of specialization education – community nurse – have been created. But what has not been prepared is financial provision of implementation of community nursing in the health care system (Bártlová, 2009). Both professional and lay public agree to a high degree in the assessment of the importance of the obstacles preventing the implementation of independent care of community nurses. They consider the issues of financial character and problems with cooperation with health insurance funds the most important of them (Tóthová, Bártlová, Prošková 2010). As they are health care – nursing activities, we believe that they should be ensured by the state, possibly under participation of regions.

Based on the analysis of the investigation results, discussions with representatives of regions and health insurance funds and comparative analysis of community care in selected EU countries, we recommend the following:

1) Continue the research of community nursing care, focusing particularly on financial expense-to-revenue ratio of this issue and stronger interconnection between health and social service.
2) Continue discussions with politicians, representatives of the Ministry of Health, Ministry of Labour and Social Affairs, so that the strategic planning of the development of health care includes implementation of community nursing care.

3) Hold talks with the president of the commission of the Council of Association of Regions for health care with regard to the possibilities of integration of the nurse into community care within regions.

4) Implement workshops within regions focused on the possibilities of integration of the nurse into community nursing care.

5) Appeal to payers of insurance funds, pointing out that the financial sources should be transferred from the existing institutions to operational service in the community in the best interest of the users.

6) Get the information to the patient. In order to provide for high information level, the awareness of broad public and the persons making decisions and influencing public opinion should be increased.

General standards of nursing care have been created in the following areas:

3. Home care in community nursing
4. Hospice care in community nursing
5. Community nursing care for mentally ill persons
6. Community nursing care for old citizens
7. Community nursing care in prevention of work risks
8. Community nursing care for children
9. Community nursing care in midwifery

We believe that in the time of economic crisis, when the transformation of the Czech health care is still under way and financial sources are looked for, community care constitutes a challenge to all politicians, because in developed countries, nurses and midwives are considered the most important source to ensure reform strategies related to transformation of hospital, reduction of time of hospitalization and particularly development of community care. In a number of states of the European Union where the community care system is implemented, nurses work in communities that require their services and make full use of them. Their work is focused on primary, secondary and tertiary prevention and accompanies the individual during all life, from birth to death. Those nurses work in the environment
natural to the individual, i.e. home, job, school. This type of care is not provided systematically and uniformly in the Czech Republic; nevertheless, nothing prevents its introduction from professional perspective and both professional and lay public considers this type of care appropriate.

**References**


Nařízení vlády ČR č. 463/2004 Sb. stanovující obory specializačního vzdělávání pro všeobecné sestry a porodní asistentky.


Vyhláška č. 424/2004 Sb., kterou se stanoví činnosti zdravotnických pracovníků a jiných odborných pracovníků


Zákon č. 96 /2004 Sb. o podmínkách získávání a uznávání způsobilosti k výkonu nelékařských zdravotnických povolání a k výkonu činností souvisejících s poskytováním zdravotní péče a o změně některých souvisejících zákonů (zákon o nelékařských zdravotnických povoláních), ve znění pozdějších předpisů.
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v zozname. Veľkosť písma grafov č. 10, správne č. 9! Při uvádzaní literárnych zdrojov upraviť
hranaté zátvorky v texte. Prvý literárny zdroj Aller… nie je uvedený v texte. Pri písaní čísiel
v ang. Používať „,“ Napr. 37.23 %
MEASURING THE QUALITY OF PATIENT’S LIFE. COMPARISON OF DIAGNOSTIC QUESTIONNAIRES WHOQOL-BREF AND GHQ-28

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Abstract
The article refers to measuring psychological subjective quality of life. Two questionnaires are compared: WHOQoL-BREF (The World Health Organization Quality of Life-BREF) and GHQ-28 (General Health Questionnaire-28). The goal was to compare the instruments in their validity of measuring quality of patient’s life. The target population is represented by nurses as experts. Differences in theoretical background and methodology of WHOQoL-BREF and GHQ-28 were found out. The WHOQoL-BREF questionnaire considers quality of life as a state, the GHQ-28 questionnaire considers quality of life as a process. Both of the questionnaires show good reliability and validity except for discriminatory validity which is better for GHQ-28. Disadvantage of the WHOQoL-BREF questionnaire is that it is freely accessible on internet without a user’s manual in Slovakia. Disadvantage of the GHQ-28 questionnaire is that it is not issued as a standardized diagnostic tool in Slovakia. The authors recommend to standardize the GHQ-28 questionnaire for Slovakia population.

Key words: quality of life, WHOQoL-BREF, GHQ-28, nurses, patients

Introduction
Gurková [2010] refers to disproporcionality between theoretical basis of quality of life (insufficient conceptual-methodological starting points) and measuring quality of life in nursing (using heterogeneous spectrum of tools). We think that theoretical basis is not the only criterion for measuring, because some questionnaires have a good theoretical background, but they are not adequate for clinical population. For example, the SEIQoL tool (Shedule for Evaluation of Individual Quality of Life) is derived from a clear concept refered to life goals which are evaluated by subjects on two scales: individual importance and extent
of contentment [Křivohlavý 2010]. The SEIQoL tool is highly used with non-clinical population, for example Řehulková and Řehulka [2008] used it for measuring quality of life of teachers. There are discussions concerning the SEIQoL usage with clinical population, because patients do not usually have more life goals – they concern their life motivation mostly on one area: resumption of health [Patel et al. 2003].

Haaseová and Bradenová [2003] recommend four steps to be followed in measuring quality of life in nursing: (1) identify purpose of measuring quality of life, (2) identify population, (3) identify theoretical background, (4) identify a measuring tool. It means that theoretical background is only one of four conditions for valid measurement of quality of life in nursing.

Before measuring quality of life it must be decided, which criterion of quality of life we use. In according to bio-psycho-socio-spiritual model of health and illness, there are four components of quality of life: physical, psychological, social and spiritual. Apart from this there are two basic theoretical models of quality of life: Scandinavian and American [Bačová 2004]. The Scandinavian model is focused on “objective” quality of life (life demands) and the American model is focused on “subjective” quality of life (person’s experiencing).

In this article is refered to psychological subjective quality of life. The strategy of our further work is to clarify the process of effective dealing with stress of patients after surgery. For the present purpose of the study we focuse on the question: How can a nurse measure psychological subjective quality of life of a patient? The aim is to enhance quality of nursing care through comparing two questionnaires for measuring quality of life: WHOQoL-BREF and GHQ-28.

Method

1. WHOQoL-BREF (The World Health Organization Quality of Life-BREF) is an instrument used in nursing practice and education in Slovakia (information from doc. PhDr. Gabriela Vörösová, PhD., head of the Nursing Department, Constantine The Philosopher University in Nitra, interviewed 9.3.2011) and it is freely accessible on internet without a user’s manual [WHO 2004, cited 7.6.2011]. Gurková [2010] refers to two types of diagnostic tools in nursing: generic instruments and specific instruments. The WHOQoL-BREF questionnaire is a generic instrument because of its applicability for non-clinical population and for patients with different illnesses. WHOQoL-BREF covers four areas: (1) health, (2) everyday activities, (3) social services, (4) internal reality [Mühlpachr 2005]. WHOQoL-BREF consists of 26
items (i.e. “How much you need some care so you can operate in everyday life”? or “How available are for you informations which you need for everyday life?”). Items are evaluated on 7 scales. Dragomirecká and Prajsová [2009 in: Gurková 2010] found good validity of WHOQoL-BREF except for discriminatory validity.

2. GHQ-28 (General Health Questionnaire-28) is an instrument used in nursing practice in Europe [Goldberg, Hillier 1979 in: Nagyová et al. 2000]. It diagnoses four factors: (1) somatic symptoms, (2) anxiety and insomnia, (3) social dysfunction and (4) severe depression, which were validated in many European countries and adapted for Slovak Republic also [Nagyová et al. 2000]. GHQ-28 is specific instrument [Watkins, Connell 2004], it consists of 28 items (i.e. “Have you recently been getting any pains in your head?” (somatic symptoms) or: “Have you recently had difficulty in sleeping once you are off?” (anxiety and insomnia) or “Have you recently felt capable of making decisions about things?” (social dysfunction) or “Have you recently been thinking of yourself as a worthless person?” (severe depression). Specificity of the GHQ-28 questionnaire is that a respondent is asked to compare his/her recent psychological state with his/her typical state [Nagyová et al. 2000].

Results
The data based on the comparison of the WHOQoL-BREF questionnaire and the GHQ-28 questionnaire are summarized in the Table 1. Three areas of comparison are created: (1) theory, (2) methodology, (3) items and scales.

58. Theory
The WHOQoL-BREF questionnaire was created by WHO team [WHO 2004, cited 7.6.2011], the GHQ-28 questionnaire was created by Goldberg and Hillier [1979 in: Nagyová et al. 2000]. WHOQoL-BREF has a general theoretical background, GHQ-28 has a specific theoretical background [Gurková 2010]. WHOQoL-BREF measures quality of life as an actual state, GHQ-28 measures quality of life as a process [Nagyová et al. 2000]. WHOQoL-BREF measures four areas of quality of life: health, everyday activities, social services, internal reality [Mühlpachr 2005]. GHQ-28 measures four factors of quality of life (generated with factor analysis): somatic symptoms, anxiety and insomnia, social dysfunction, severe depression [Nagyová et al. 2000].

59. Methodology
Both the WHOQoL-BREF questionnaire and the GHQ-28 questionnaire were translated into Slovak and were validated for Slovak Republic. Reliability and construct validity of both
questionnaires is good [Berlim et al. 2005, Nagyová et al. 2000]. GHQ-28 has good discriminatory validity, WHOQoL-BREF has lower discriminatory validity [Watkins, Connell 2004].

60. Items and scales

The WHOQoL-BREF questionnaire consists of 26 items [WHO 2004, cited 7.6.2011], the GHQ-28 questionnaire consists of 28 items [Nagyová et al. 2000]. Items of WHOQoL-BREF are formulated quite, items of GHQ-28 are formulated as more specific. Time for administrating both of questionnaires is cca 15 minutes. WHOQoL-BREF has 7 answering scales, GHQ-28 has 1 answering scale.

Table 1.
Comparison of the WHOQoL-BREF questionnaire and the GHQ-28 questionnaire

<table>
<thead>
<tr>
<th>Area of comparison</th>
<th>WHOQoL-BREF</th>
<th>GHQ-28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authors</td>
<td>WHO team</td>
<td>Goldberg and Hillier</td>
</tr>
<tr>
<td>Theoretical background</td>
<td>general</td>
<td>specific</td>
</tr>
<tr>
<td>Quality of life defined as</td>
<td>state</td>
<td>process</td>
</tr>
<tr>
<td>Areas</td>
<td>(1) health</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(2) everyday activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) social services</td>
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<tr>
<td></td>
<td>(4) internal reality</td>
<td></td>
</tr>
<tr>
<td>Factors</td>
<td>-</td>
<td>(1) somatic symptoms</td>
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<td></td>
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<td>(2) anxiety and insomnia</td>
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<td>(3) social dysfunction</td>
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<td></td>
<td></td>
<td>(4) severe depression</td>
</tr>
<tr>
<td>Metodology</td>
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<tr>
<td>Translation into Slovak</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Validation in Slovakia</td>
<td>yes</td>
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</tr>
<tr>
<td>Reliability</td>
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</tr>
<tr>
<td>Number of answering scales</td>
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</tr>
</tbody>
</table>
Discussion

The goal was to compare the two questionnaires: WHOQoL-BREF and GHQ-28. Both of the questionnaires measure subjective psychological quality of life – WHOQoL-BREF in the area of “internal reality” [Mühlpachr 2005], GHQ-28 in factors “anxiety and insomnia” and “severe depression” [Nagyová et al. 2000]. We think that psychological component of quality of life is important for nursing care with somatic patients, as every somatic diagnosis typically creates negative emotions in patient (fear, anxiety, frustration, anger, depression).

1. Characteristic of WHOQoL-BREF and GHQ-28

After the analysis carried out we found four neutral characteristics, five characteristics we qualified as advantages of the GHQ-28 questionnaire and two characteristics we qualified as advantages of the WHOQoL-BREF questionnaire.

Neutral characteristics are: translation into Slovak, validation in Slovak Republic, number of items, time for administrating questionnaires.

Advantages of GHQ-28 are: specific theoretical background, four factors of quality of life which were created and validated through factor analysis, good psychometric properties (especially discriminatory validity), specific formulation of items, one uniform scale for answering items.

Advantages of WHOQoL-BREF are: standardization in Slovak Republic and measuring actual level of quality of life.

The GHQ-28 questionnaire does not measure actual state of quality of patient’s life, but it measures processual aspect of quality of life as change between two states of quality of life. We consider a change very important from psychological view and we put more emphasis on change of quality of life than on actual state. It can be demonstrated on the example of two fictive patients (A and B). The patient A has got high level of quality of life and the patient B has got lower initial level of quality of life. They have got the same diagnosis. The patient’s A level of quality of life decreases rapidly, the patient’s B level of quality of life decreases less. Actual state after the diagnosis by patient A and B is the same (final level). The change in the level of quality of life is more important for patient than his/her actual state, because of adaptation demands of change (picture 1).
2. Psychometric parameters of WHOQoL-BREF and GHQ-28
Reliability and validity of the WHOQoL-BREF questionnaire is good in several countries, for example Netherlands [Trompenaars et al. 2005], Brazil [Berlim et al. 2005] or Taiwan [Yaová et al. 2002]. In Slovak the validation process of WHOQoL-BREF was conducted by Dragomirecká and Prajsová [2009 in: Gurková 2010], also the authors of the user’s manual. WHOQoL-BREF has got a good construct and content validity, but it has got lower discriminatory validity which is explained as a consequence of being a generic instrument [Gurková 2010].

Reliability and validity of the GHQ-28 questionnaire is good both in other countries and Slovakia. Validity was confirmed by factor analysis [Nagyová et al. 2000]. There is also good discriminatory validity because GHQ-28 belongs to specific instruments which show better sensitivity of measuring [Watkins, Connell 2004]. Psychometric evaluation of GHQ-28 is good and in Europe GHQ-28 is broadly used in praxis and research [Nagyová et al. 2000]. Therefore we suggest to standardize GHQ-28 in Slovakia.

3. New theme in measuring quality of life
There is opened a new theme in measuring quality of life: to measure spiritual component of quality of life. We recommend to use tools which can measure also the spiritual component. For example, the SEIQoL scale [Křivohlavý 2010] already mentioned in the article, appears to be a good supplement in measuring quality of life of clinical population when combinaded with traditional tools measuring quality of life [Patel et al. 2003].
Finally, we want to stress nurses implicit estimation of quality of patients life, especially in situation of hospitalization. It is test of validity whether results of diagnostics is in accordance with nurses estimation. We propose that objective and subjective knowledge of patients can be helpful not only for patients, but can also protect nurses from burnout.

**Conclusion**

After the analysis carried out the authors recommend to standardize the GHQ-28 questionnaire in Slovakia.

**References**


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NURSING DIAGNOSTICS IN THE NANDA DOMAIN FOR THE INSTITUTIONS FOR MENTALLY CHALLENGED PEOPLE

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³ Social care institution Kreatív, Klasov, Slovakia

Abstract

Introduction Nurses’ professional competence to exercise their profession in social care homes in Slovakia was superseded by legislative norms of the Ministry of Labour, Social Affairs and Family of the Slovak Republic for a few years. They were not competent to exercise the profession in accordance with gained education. The new legislative returned them competences, but it demands application of the method of nursing process.

Objective In compliance with the changes we aim to develop diagnostic categories from NANDA International as a basis for nursing process in social care homes for mentally disabled.

Material and methods We used Barthel test for assessment and measurement of clients’ self-sufficiency degree. By the method of modelling and thought experiment we developed diagnostic files of classification system NANDA International for clients in individual departments. Sampling file consisted of 129 clients placed in social care homes „Kreatív“ in Klasov.

Results Clients classification into individual groups according to self-sufficiency led to development of 38 NANDA International diagnoses, in Domain 1 Health Promotion 2 diagnoses, Domain 2 Nutrition 5 diagnoses, Domain 3 Elimination and Exchange 3 diagnoses, Domain 4 activity/Rest 12 diagnoses, Domain 5 Perception/Cognition 4 diagnoses, Domain 11 safety/Protection 8 diagnoses, Domain 12 Comfort 1 diagnose, Domain 13 Growth/Development 2 diagnoses.

Conclusion Selected files of NANDA diagnoses enable to apply the method of nursing process in social care homes in Slovakia.
Key words
Social care homes, nursing process, NANDA International, nurses - clients

Introduction
Effective nursing care provision is a vital part of nursing care in social care homes for mentally handicapped people. If we want to increase the quality of nursing care provision, it is necessary to utilise the newest information arising from nursing based on evidence (EBN). One of them is the classification system NANDA INTERNATIONAL (Herdmann et al., 2009; Kozierová et al., 2005; Marečková, 2006; Boledovičová et al., 2010). The method of nursing process is the most effective way of treating clients/patients not only in health institutions, but in all ambulatory clinics and institutions where nurses work. This method enables to keep transparent documentation about provided care in accordance with §18 and 25 Act No. 576/2006 on nursing care. One of the nursing tasks is to ensure meeting needs in health and illness (Trachtová et al., 2001; Kilíková, Jakešová, 2008). Based on assessment nurse can effective diagnose level of meeting needs and suitable apply classification systems NIC and NOC (Vörösová et al., 2007; Bulecheck et al., 2008; Moorhead et al., 2008). Social care institutions are focused on provision of essential conditions for meeting basic living needs of a physical person (Act No. 448/2008) and according to § 22 selected institutions can provide nursing care. Selection of health outputs from the catalogue of health outputs, performed by employees of the institution (Regulation Ministry of Health SR No. 109/2009) have to meet conditions for provision of nursing career that is set by a public statue of the Ministry of Health SR after the agreement with the Ministry of Labour, Social Affairs and Family of the Slovak Republic. Social care home „Kreativ“ in Klasov belongs to those institutions that meet conditions for providing nursing care. Our main intention was to form diagnostic files from NANDA-I as a starting point for nursing process in social care institutions for mentally handicapped people.

Material and methods
We used content analysis for assessing nursing documentation and mapping actual health status of our clients. Barthel test of basic daily living activities helped us to determine the level of clients’ self-sufficiency and on basis of test’s results using the method of modelling and thought experiment we developed files of diagnoses for individual clients groups from
classification file NANDA International. Sampling file was formed by 129 clients of social care home „Kreativ“ in Klasov.

Results

Results analyse of Barthel test - point range for classification into groups: 0–40 points: high dependence; 45-60 points: middle dependence; 65-95 points: mild dependence and 100 points: independence.

Barthel test results in women

Immobile clients had mean values of 10 points in individual activities and they are high dependent on help provided by nursing staff in all activities. Partly immobile clients with mean value of 35 points are high dependent when taking a bath, with personal hygiene, when using toilette, and walking up the stairs. Clients in educational department have the biggest problem with taking a bath and personal hygiene, and in other activities they are middle dependent. Their point evaluation reached the mean 79. Clients in health department reached the mean value of 68 points, in activities like taking a bath and personal hygiene they are high dependent and in other activities they reach middle dependence. Clients living in protected residence are independent with the mean value of 100 points.

Barthel test results in men

Immobile clients reached mean values in individual activities 13 and they are high dependent on help provided by nursing staff in all activities. Partly immobile clients with mean values of 34 are high dependent when taking a bath, with personal hygiene, when using toilette, and walking up the stairs. Clients in educational department have the biggest problem with taking a bath and personal hygiene, and in other activities are middle dependent with the mean value of 82 points. Clients in health department with mean value of 59 in taking a bath and personal hygiene are high dependent and in other activities they reach middle dependence. Clients living in protected residence are independent with the mean value of 100.

Based on the analyse we developed following files of nursing diagnoses from the classification system NANDA-I.
<table>
<thead>
<tr>
<th>Domain</th>
<th>Diagnostic Code</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain 1 Health Promotion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ineffective Health Maintenance</td>
<td>00099</td>
<td>2 Health management</td>
</tr>
<tr>
<td>Readiness for Enhanced Nutrition</td>
<td>00163</td>
<td></td>
</tr>
<tr>
<td><strong>Domain 2 Nutrition</strong></td>
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<td></td>
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<tr>
<td>Risk for Imbalanced Nutrition:</td>
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<td>1 Ingestion</td>
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<tr>
<td>More Than Body Requirements</td>
<td>00103</td>
<td></td>
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<tr>
<td>Impaired Swallowing</td>
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<tr>
<td>Deficient Fluid Volume</td>
<td>00027</td>
<td>5 Hydration</td>
</tr>
<tr>
<td>Risk for Deficient Fluid Volume</td>
<td>00028</td>
<td></td>
</tr>
<tr>
<td>Readiness for Enhanced Fluid Balance</td>
<td>00160</td>
<td></td>
</tr>
<tr>
<td><strong>Domain 3 Elimination and Exchange</strong></td>
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<td></td>
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<td>00020</td>
<td>1 Urinary Function</td>
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<tr>
<td>Bowel Incontinence</td>
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<td></td>
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<td>Risk for Constipation</td>
<td>00014</td>
<td>2 Gastrointestinal Function</td>
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<tr>
<td><strong>Domain 4 Activity/Rest</strong></td>
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<td>2 Activity/Exercise</td>
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<td>Impaired Bed Mobility</td>
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<td>Impaired Wheelchair Mobility</td>
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<td>Impaired Transfer Ability</td>
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<tr>
<td>Impaired Walking</td>
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<tr>
<td>Fatigue</td>
<td>00093</td>
<td>3 Energy Balance</td>
</tr>
<tr>
<td>Activity Intolerance</td>
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<td></td>
</tr>
<tr>
<td>Bathing Self-Care Deficit</td>
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<td></td>
</tr>
<tr>
<td>Dressing Self-Care Deficit</td>
<td>00108</td>
<td>4 Cardiovascular/Pulmonary</td>
</tr>
<tr>
<td>Feeding Self-Care Deficit</td>
<td>00109</td>
<td>5 Self-Care</td>
</tr>
<tr>
<td>Toileting Self-Care Deficit</td>
<td>00102</td>
<td></td>
</tr>
<tr>
<td>Readiness for Enhanced Self-Care</td>
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<tr>
<td></td>
<td>00182</td>
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<tr>
<td><strong>Domain 5 Perception/Cognition</strong></td>
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<tr>
<td>Kinesthetic, Gustatory, Tactile,</td>
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<td>4 Cognition</td>
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<tr>
<td>Olfactory)</td>
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<td>Acute Confusion</td>
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<td>Deficient Knowledge</td>
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<tr>
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<tr>
<td><strong>Domain 11 Safety/Protection</strong></td>
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<td>Risk for Impaired Skin Integrity</td>
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<tr>
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<td>Risk for Trauma</td>
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<tr>
<td>Risk for Aspiration</td>
<td>00039</td>
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<tr>
<td>Risk for Falls</td>
<td>00155</td>
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<tr>
<td>Risk for Self-Mutilization</td>
<td>00139</td>
<td>3 Violence</td>
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<tr>
<td>Risk for Other–Directed Violence</td>
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</table>
Discussion

In social care home „Kreativ“ in Klasov according to § 38 Act 448/2008 on social services, social service is provided to a person who is dependent on others. It provides nursing care, social counselling, social rehabilitation, accommodation, board, cleaning, ironing, washing up, and personal equipment. Spare-time activities, occupational activities - ergotherapy and conditions for education are ensured. Meeting bio-psycho-social needs of clients is the nursing philosophy of the home. Needs are met by a qualified nursing and medical staff in cooperation with special pedagogues, and social workers. Home consists of 5 departments and individual departments form communities offering home to clients with common features, aims, disabilities. Every department is equipped with a kitchen, a recreation hall, dayrooms, bedrooms, and a bathroom.

61. Educational department has 39 clients with different types of mentally disability, mainly of middle degree. Educationally they are manageable. We teach them to be independent in self-services, hygiene, board, managing money. We foster working skills, knowledge, and social contact. Occupation consists in performance of individual developing plans. Everybody has its own plan. Team cooperation of medical and nursing staff and educational employees is essential. Client with his/her special needs is in the centre of their interest. We access individually to education and focus on development of self-service, communication, social behaviour, and social skills. The nurse has a role of educator, change carrier, but nursing care provider as well and she supervises the activities of daily living. She applies nursing process method to solve deficits in meeting these needs. Clients work in four ergotherapeutic workshops – tailoring, weaving, decoupage, and basketry. A part of ergotherapy within rehabilitation is occupation in patchwork atelier.

62. Health department is formed by a community of 40 clients with serious mental diagnosis, subsidiary psychiatric diseases, behaviour disorders, autism, neurologic, somatic, and sensory diseases. Working in this department is very exacting, clients require day – long care provided by a qualified nursing staff. Day – long care,
professional regulation and help by activities of daily living is necessary. We provide our clients nursing care using the method of nursing process, social rehabilitation, and education according to the degree of severity.

3. Immobile department has 25 clients staying mainly in beds and in summer on terrace. Clients are severe mental retarded with subsidiary infantile paralyses, spastic quadriparesis, paraparesis, diparesis. Most of clients do not speak, even do not respond to addressing. Clients require systematic day – long care provided by healthcare professionals. We use method of basal stimulation. Treatment lies in positioning, decubitus prophylaxis, and rehabilitation.

4. Partly immobile department has 25 clients, they move on a wheelchair or they are partly limited in movement. They use mainly rehabilitation aids. All of them have mental retardation of severe or middle severe degree, subsidiary are physical and hearing impairment. We try to teach them to become independent, develop self – serving activities within their possibilities and abilities. We develop social skills, interests, and activities of daily living. They require day – long care and professional direction. Department is barrier-free with a large terrace.

5. Protected housing offers a single small house in the park, where six girls and seven boys live together. They have mild to middle degree of mental retardation. We encourage them to be independent. They clean without assistance, wash, and iron, do shopping, sometimes cook, and deal with current business at the post office by themselves. Supervision is necessary by activities of daily living. Clients are supposed to help in the individual departments, in kitchen, laundry, with cleaning, in the park. It is a training house, where they are prepared for independent life out of home.
There was not the necessity to apply nursing process in social care homes, unless nurses were not competent to provide nursing care. Diagnostic for assessing clients’ needs is not developed. We have applied nursing process in our home and we aim to use actual experiences and nursing know how based on evidence (EBN) and develop relevant diagnostic categories in accordance with NANDA International, that will be useful not only for our home, but all social care homes in Nitra region. Meeting needs in health and illness is the basic nursing task (Staňková, 2001; Trachtová, 2001). Nursing process enables to keep transparent documentation on provided care (Act No. 576/2006). Based on assessment the nurse is able to diagnose the degree of meeting needs effective and appropriately use classification systems NIC and NOC (Vörösóvá et al, 2007; Bulecheck, Butcher, Dochterman, 2008; Moorhead et al., 2008). Social care homes are focused on providing essential conditions for meeting basic living needs of a physical person (Act No. 448/2008) and according to § 22 selected homes are competent to provide nursing care. Selection of health outputs from the catalogue of health outputs provided by employees of the institution (Regulation Ministry of Health SR 109/2009) have to fulfil criteria for exercise of a health profession set by a public statue of the Ministry of Health SR after the agreement with the Ministry of Labour, Social Affairs and Family of the Slovak Republic. Our social care home „Kreativ“ in Klasov is one of the social care homes with competence to provide nursing care and where all nurses fulfil the legislative conditions of the Regulation of Ministry of Health SR No. 109/2009 and are skilled for the exercise of the profession according to Government act 742/2004. Most of them finished advanced vocational study, subject field psychiatric nurse, many of them are studying in bachelor study programme nursing and one of them is master of nursing and all nurses have specialization in required fields. According to the resolution imposed by the nurse of municipal region in Nitra the application of nursing process and development of diagnoses file from the classification file of NANDA diagnoses are essential. Based on obtained data from the measurement by Barthel test we developed diagnoses file from the classification file NANDA International. Our actual experience with the nursing process method used for providing care for mentally handicapped people confirm that it is a suitable method also for social care homes. What will be the difference in documentation of actual nursing care and developed files according to NANDA International?
Conclusion

Needs of every man in health or illness should be met. For people with mentally or mixed disability placed in social care homes meeting their needs is also very important. They are personalities with own world and heart full of love. Also the care for these people has to be based on scientific base. In our case it is the classification system NANDA that enables to term deficits of our clients and solve them as effective as possible. This task imposed the nurse of municipal region in Nitra. Developed diagnostic files will be useful not only in our work, but we will offer them to other social care homes not only in Nitra region, but also in Slovakia. We hope that they help the nursing staff in providing quality nursing care resulting from legislative and nursing based on evidence.

References

VÝHLÁŠKA Ministerstva zdravotníctva Slovenskej republiky č. 109/ 2009,ktorou sa ustanovuje výber zdravotných výkonov z katalógu zdravotných výkonov, ktoré v zariadeniach sociálnych služieb vykonávajú zamestnanci zariadenia sociálnych služieb

63
ZÁKON č. 448/2008 o sociálnych službách a o zmene a doplnení zákona č. 455/1991 Zb. o živnostenskom podnikaní (živnostenský zákon) v znení neskorších predpisov.
SOCIAL EXCLUSION OF IMMIGRANTS IN THE CZECH REPUBLIC IN RELATION TO THEIR USE OF HEALTH CARE

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University of South Bohemia, Faculty of Health and Social studies, Department of Nursing and Obstetrics, Czech Republic

Abstract

This paper deals with the problem of health care availability to immigrants in the Czech Republic. This research study is based on the concept of social determinants of health published by Wilkinson, R. and Marmot, M. in 2003 in Copenhagen. The amount of hospital care used by foreigners that had not been able to join the system of the public health insurance (the studied period is the year 2009) was followed as a first part of our study. It was found that 78,665 foreigners used hospital care in this particular period of time and as the hospital charges were not financed by the system of national health insurance most foreigners used cash settlement or remittance from Czech or foreign contractual insurance policy. In the second part of this research the hospital care given to immigrants was evaluated using chosen parameters and the connections between conditions of the given care and parameters of the social and cultural availability were sought. Within the scope of questionnaire research 246 members of Ukrainian, Mongolian and Vietnamese minority groups were approached. 74.9 % respondents judged information given to them by the health care staff as comprehensive. From the point of language 58.3 % respondents found the information understandable. About 68 % evaluated the behaviour of doctors and nurses toward them as dignified. Statistical testing on the significance level of $\alpha = 0.01$ found statistically significant connection between the nationality of respondents and their ability to communicate in Czech ($p = 0.000$) as well as in language comprehension of the information given ($p = 0.000$). On a lower level of $\alpha = 0.10$ connection was found between the age of the respondents and the interpreter service offered by the health care staff ($p = 0.074$) and between capability to communicate in Czech ($p = 0.053$).

Key words: Social Determinants of Health, social exclusion, immigrants, The Czech Republic, health care
Introduction

The paradigm of the Social Determinants of Health conceptually processed by Richard Wilkinson and Michael Marmot in 2003 v Copenhagen comprises a complex approach to information analysis on the health status of an individual. This strategy focuses on ten key determinants of health. These are: social gradient, stress, childhood, social exclusion, occupation, unemployment, social support, nourishment, addiction and transportation. The establishment of WHO board for social determinants of health in 2008 emphasises the general acknowledgement of this concept.

Social exclusion greatly influences the health situation of an individual as well as that of the population as a whole. The dictionary of social work describes social exclusion as “complexly independent insufficient engagement of an individual, a group or local community in the life of the population” [Matoušek 2003, p. 217]. Availability of quality health care is the basic determinant of development of a society as well as a factor of social exclusion or inclusion of an individual, ethnical or religious minority into the majority population. Immigrants are due to their language barrier, lack of finances and unavailability of public health care-insurance system exposed to lowered availability of health care especially in the area of social and cultural as well as financial availability. The main goal of this research is therefore mapping the problem of foreigners using health care in the Czech Republic in connection to the availability of the given health care.

Aim

The aim of this research study was the problem of social exclusion of foreigners in the Czech Republic in connection to the use of health care investigated using chosen determinants of social and cultural availability. Based on the subject of this research these objectives have been set:

- Determine the volume of contractual insurance policies foreigners had with the Czech national insurance company VZP, Inc. from 01-01 to 31-12- 2009
- Determine the volume of hospital care used by foreigners in 2009
- Map the health care given to foreigners according to the chosen parameters
- Find connection between conditions of health care given to immigrants and determinants of social and cultural availability
Methodology
Quantitative strategy, questionnaire technique and secondary data analysis has been chosen for data collection of this study. Within the scope of secondary analysis materials of the Czech Statistical Institute was used. The subject of the study were foreigners legally staying in the Czech Republic during 2009, which means that they had visas issued for stays up to 90 day, visas issued for a 90 days stay or they possessed some of the existent types of residency permissions. 434 600 foreigners had permission to stay legally in the Czech Republic during the observed period of time [Cizinci v České republice – Foreigners in the Czech Republic 2010].
Within the scope of the questionnaire investigation 246 respondents were addressed in three regions of the Czech Republic (Prague, Vysočina region and South Bohemian region). The questionnaire has been translated into Mongolian, Russian, Ukrainian and Vietnamese. The addressed respondents had been given permission for long-term stay in the Czech Republic according to law of foreigner stay no. 326/1999.
In order to find relations between the conditions of the given health care to immigrants and determinants of social and cultural availability following criteria were set.

Evaluated criteria of the given health care by the respondents:
- Complexity of given information
- Language comprehension of given information
- Behaviour of doctors and nurses toward the respondent
- Offered interpreter services

Determinants of social and cultural availability of health care:
- Gender – from the total number of 246 respondents were 148 women (60.2 %) and 98 men (39.8 %).
- Nationality – from the 246 respondents there were members of 69 respondents Vietnamese (28.1 %), 93 respondents Ukrainian (37.8 %) and 84 respondents Mongolian (34.1 %) minorities.
• Age of respondents – from the total number of 246 respondents were 159 respondents (64.4%) from 19 to 39 years old, 77 respondents (31.3%) between ages 40 to 55 years old and 10 respondents (4.3%) in the age category of 56 to 65 years old.

• Capability to communicate in Czech – excellent and very good capability to communicate in Czech was marked by 28 respondents (11.4%), 96 respondents (39%) said to communicate well, 102 respondents (41.5%) communicate badly or very badly. 20 respondents (8.1%) gave no answer to this question.

Results

In 2009, 33 509 foreigners were contractually insured for health care with VZP. The largest group of these foreigners consisted of the Ukrainian (10 792, 32.2%), Vietnamese (6 444, 19.2%) and Russian (3 292, 9.8%) minorities. 7 283 people used health care services, mostly by Ukrainians (2 167, 29.8%), Vietnamese (1 662, 22.8%) and Russians (866, 11.9%).

<table>
<thead>
<tr>
<th>Country</th>
<th>Insured</th>
<th>%</th>
<th>Persons drawing insurance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>33 509</td>
<td>100 %</td>
<td>Total</td>
<td>7 283</td>
</tr>
<tr>
<td>Ukraine</td>
<td>10 792</td>
<td>32.2 %</td>
<td>Ukraine</td>
<td>2 167</td>
</tr>
<tr>
<td>Vietnam</td>
<td>6 444</td>
<td>19.2 %</td>
<td>Vietnam</td>
<td>1 662</td>
</tr>
<tr>
<td>Russia</td>
<td>3 292</td>
<td>9.8 %</td>
<td>Russia</td>
<td>866</td>
</tr>
</tbody>
</table>

Source: Foreigners in the Czech Republic 2010, ČSÚ, 2009

Hospital care was in 2009 used by 78 665 foreigners. The largest group consisted of Slovak minority (15 918, 20.2%), Ukrainians (11 077, 14.1%), nationalities from the former USSR (9 810, 12.5%) a Germany (5 916, 7.5%).

<table>
<thead>
<tr>
<th>Country</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>78 665</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country of origin with the largest group of foreigners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovakia</td>
</tr>
<tr>
<td>Ukraine</td>
</tr>
<tr>
<td>Countries of former USSR</td>
</tr>
<tr>
<td>Germany</td>
</tr>
</tbody>
</table>

Source: Foreigners in the Czech Republic 2010, ČSÚ, 2009

Within the scope of questionnaire investigation (from the total number of 246 respondents) 140 respondents evaluated the behaviour of doctors toward them. Out of these 67.9% respondents found the behaviour dignified (yes + mostly yes), while 12.9% found the
behaviour rather undignified (mostly no + no). Behaviour of nurses were evaluated similarly (dignified – 67.1 %, undignified - 13.6 %).

Table 3 Behaviour of doctors and nurses toward the respondent – dignity

<table>
<thead>
<tr>
<th>Doctor behaviour</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Valid Percentage</th>
<th>Nurse behaviour</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Valid Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>76</td>
<td>30.9</td>
<td>54.3</td>
<td>Yes</td>
<td>75</td>
<td>30.5</td>
<td>53.6</td>
</tr>
<tr>
<td>Mostly yes</td>
<td>19</td>
<td>7.7</td>
<td>13.6</td>
<td>Mostly yes</td>
<td>19</td>
<td>7.7</td>
<td>13.5</td>
</tr>
<tr>
<td>Moderately</td>
<td>27</td>
<td>11.0</td>
<td>19.3</td>
<td>Moderately</td>
<td>27</td>
<td>11.0</td>
<td>19.3</td>
</tr>
<tr>
<td>Mostly no</td>
<td>7</td>
<td>2.8</td>
<td>5.0</td>
<td>Mostly no</td>
<td>8</td>
<td>3.3</td>
<td>5.7</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>4.5</td>
<td>7.9</td>
<td>No</td>
<td>11</td>
<td>4.5</td>
<td>7.9</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
<td>56.9</td>
<td>100.0</td>
<td>Total</td>
<td>140</td>
<td>56.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>106</td>
<td>43.1</td>
<td></td>
<td>Missing</td>
<td>106</td>
<td>43.1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>246</td>
<td>100.0</td>
<td></td>
<td>Total</td>
<td>246</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research COST, reg. n. OC 10031 called: „Health and social situation of immigrants and asylum seekers in the Czech Republic

From the total number of 149 valid answers from respondents 74.9 % stated to have been given valid responses with complete and complex information from the health care staff (yes + mostly yes). From the total number of 149 valid answers from respondents the information was comprehensible from the language point of view for 58.3 % respondents while 34.6 % respondents found the information incomprehensible language-wise.

Table 4 Complexity of given information and its language comprehension

<table>
<thead>
<tr>
<th>Information complexity</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Valid Percentage</th>
<th>Information comprehension</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Valid Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>78</td>
<td>31.7</td>
<td>52.4</td>
<td>Yes</td>
<td>49</td>
<td>19.9</td>
<td>38.6</td>
</tr>
<tr>
<td>Mostly yes</td>
<td>38</td>
<td>15.4</td>
<td>25.5</td>
<td>Mostly yes</td>
<td>25</td>
<td>10.2</td>
<td>19.7</td>
</tr>
<tr>
<td>Moderately</td>
<td>18</td>
<td>7.3</td>
<td>12.1</td>
<td>Moderately</td>
<td>9</td>
<td>3.7</td>
<td>7.1</td>
</tr>
<tr>
<td>Mostly no</td>
<td>9</td>
<td>3.7</td>
<td>6.0</td>
<td>Mostly no</td>
<td>9</td>
<td>3.7</td>
<td>7.1</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>2.4</td>
<td>4.0</td>
<td>No</td>
<td>35</td>
<td>14.2</td>
<td>27.5</td>
</tr>
<tr>
<td>Total</td>
<td>149</td>
<td>60.6</td>
<td>100.0</td>
<td>Total</td>
<td>127</td>
<td>51.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>97</td>
<td>39.4</td>
<td></td>
<td>Missing</td>
<td>119</td>
<td>48.4</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>246</td>
<td>100.0</td>
<td></td>
<td>Total</td>
<td>246</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research COST, reg. n. OC 10031 called: „Health and social situation of immigrants and asylum seekers in the Czech Republic

For statistical evaluation of the data introduced below the Pearson Chi-square test was chosen. Significance level α varies between 0.01 and 0.10. This significant level is given for all tests.
Table 5 Statistically significant connections between chosen characteristics of social and cultural availability of health care

<table>
<thead>
<tr>
<th>Capability of communication in Czech</th>
<th>Age class classification</th>
<th>Gender</th>
<th>Nationality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significance (Pearson Chi-square test)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>0.053</td>
<td>-</td>
<td>0.000</td>
</tr>
<tr>
<td>Language comprehension of given information</td>
<td>0.01</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Satisfaction with given care</td>
<td>-</td>
<td>0.01</td>
<td>-</td>
</tr>
<tr>
<td>Availability of interpreter</td>
<td>0.001</td>
<td>0.074</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Research COST, reg. n. OC 10031 called: „Health and social situation of immigrants and asylum seekers in the Czech Republic

Discussion

The system of health care financing in the Czech Republic is based on obligatory health insurance enforced by law. All citizens of the Czech Republic must financially contribute to their health insurance by 13.5% from basic salary. The state is responsible for the insurance amount of the unemployed, the retired, and the women on maternity leave, refugees, children and students up to 26 years of age. There are nine active health insurance companies on the Czech market, in position of public institutions. Their main task is maintenance of the public health insurance. The Czech health care system is financed based on social solidarity, i.e. insurance companies are financing the given health care from all finances collected [Zlámal, Bellova 2005]. Contracting health insurance policies for foreigners is a frequent side activity of the health insurance companies and other commercial insurance companies with permission from the state. Foreigners without employment status, permanent residency, from countries of origin outside the European Union or without refugee status are not entitled to enter the system of public health insurance and must therefore arrange a contractual health insurance policy with one of the Czech insurance companies or a foreign one. According to law, no. 326/1999 on foreigners staying in the Czech Republic, in the current version, a foreigner applying abroad for permission or visa for a long-term stay in the Czech Republic and is asked to present a document on a tourist health insurance policy, which must cover any expenses connected to emergency and acute health care. Minimum limit of the insurance payment must be at € 60 000. In case the foreigner already is staying in the Czech Republic and wants to extend the time of stay on a long-term visa, obtain permission for a long-term stay or extend it, he must present a document on tourist health care policy for complex health care, which must be obtained only with insurance companies entitled to contracting these in the Czech Republic.
Within the scope of this research the aim was to determine the number of foreigners with a long-term respective short-term stay in the Czech Republic that had a contractual insurance policy with the insurance company VZP in 2009. Although VZP is the largest insurance company in the Czech Republic and has in register 80 % of all people insured, the given data are not clear on the number of insured foreigners the Czech Republic. The number of contractually insured with VZP in 2009 was determined at 33,509 individuals. The largest group originated from Ukraine (32.2 %), the second largest from Vietnam (19.2 %) and Russia (11.9 %), see Table 1. These numbers show a decrease of 22.2% as compared to 2008. The reason for this decrease is the lower number of foreigners legally staying in the Czech Republic. For example did the number of insured members of the Vietnamese community decrease by 60 %. In 2009 78,665 foreigners not insured by public health insurance used hospital health care. Most often were these foreigners from Slovakia (20.2 %), Ukraine (14.1 %), former USSR (12.5 %) and Germany (7.5 %), see Table 2. The number of hospitalised foreigner’s increases annually and the share of patients from outside EU oscillate around 50 %. The most frequent way the foreigners used to finance the given care was in cash, followed by contractual and foreign insurance policies. Frequent causes of hospitalisation were gravidity, giving birth, wounds and poisonings [Cizinci v České republice – Foreigners in the Czech Republic 2010].

All developed European countries guarantee their citizens available and quality health care, where the care can be defined as a degree of perfection of the given care related to the current possibilities of medicine, science and technology. One possibility to study the quality of given care is accreditation evaluation. Accreditational services are in the Czech Republic provided by the United Accreditation Comity (UCA) that evaluates the conditions of the given health care in the areas of security and quality [Škrlova, Škrlová 2003]. The accreditation standard of the UCA no. 36 makes the health care staff responsible for removing all mechanical, language, cultural and other barriers preventing the patient to fully use the available health care [Marx, Vlček 2008]. This standard is in accordance with the international accreditation standard called Joint Commission International (PFE.4.1) that makes all health care institutions responsible for availability of comprehensible information to all patients about all things connected to their treatments and in a language comprehensible to them (JCI, 2004). In this study we were interested in the way the foreigners judge the complexity and language comprehension of information given to them by the health care staff. Within the scope of the
questionnaire investigation we have contacted 246 members of Mongolian, Vietnamese and Ukrainian minority groups. About one half of these had used primary and sometimes secondary health care in the Czech Republic. More than two thirds of the respondents (74.9 %) were satisfied the complexity of given information from the health care staff. These results also confirm the conclusions from former investigation conducted by Hudáčková and Brabcová (2011) where 68.5 % respondents of the Ukrainian minority evaluated the complexity of the given information positively.

Although 41.5 % respondents evaluated their ability to communicate in Czech as bad or very bad, only 11 % respondents mentioned that an interpreter service was offered to them by the health care staff. This insufficient effort of the hospital establishment to deal with the language barrier of hospitalised foreigners is also shown by the fact that 34.6 % respondents were not satisfied with language comprehension of the information given to them by the hospital (Table 4).

According to Janečková and Hnilicová (2009) the long-term problem of the Czech healthcare is inadequate goodwill of the health care staff, called “cultural superiority and impersonal approach”. The results obtained were therefore pleasantly surprising that 70 % respondents evaluated the behaviour of nurses and doctors toward them as dignified (Table 3).

Social exclusion of the socially inferior groups belongs to risk factors when health situation of the individuals is concerned. Inequality of the given health care is connected to the availability of health care that is determined by the obstacles patients may or may not have when trying to use health care services. Geographical availability of health care services is given by the density of health care facilities, while financial availability is determined by the type of insurance policy and the share of patient participation on the given health care. Chronological availability is given by the waiting time for planned treatments, travelling times of the ambulance service or waiting time in out-patient facilities. Among the obstacles to health care availability seen from social and cultural perspective hear language barrier and belonging to a nationality or religious minority [Křížová 1998].

Health care availability is lower for foreigners mainly for the reasons of financial and social and cultural availability. In this research we chose as the final scope of the investigation to find statistically significant connections between the conditions of given health care to immigrants and the determinants of social and cultural availability. Statistically significant connection was shown between the capability of the respondent to communicate in Czech and
the language comprehension of the information given by the health care staff (p = 0.01), where the comprehension of given information from health care staff naturally increased with increasing ability to communicate in Czech. On the other hand, with lowered ability to communicate also increases the number of offers of interpreter services (p = 0.01). The ability to communicate in Czech and satisfaction with the given care was changing significantly with the age of the respondents. With increasing age increased also their capability of communicate in Czech (p = 0.053) and satisfaction with given health care (p = 0.074). Statistically significant dependence was also proved between nationality and capability to communicate in the Czech (p = 0.000), language comprehension of the given information from the health care staff (p = 0.000) and satisfaction of the given health care (p = 0.01). All three determinants were shown to be higher for the Ukrainian minority as compared to the Asian one (table 5).

Conclusion
The subject of this scientific research was to establish the number of foreigners commercially ensured with the insurance company VZP and determine the volume of used hospital care by foreigners in the Czech Republic during 2009. The second aim of this study was to map selected conditions of the given health care using questionnaire investigation and then find statistically significant connections between these conditions and social and cultural availability of health care. It should be said that the sample pool of 246 respondents used in the questionnaire investigation is not representative and therefore the reached conclusions should not be generalised to be applicable for the whole population of the minorities staying in the Czech Republic.

Nevertheless, based on the established aims the following conclusions can be drawn:

• In 2009 the insurance company VZP signed a commercial insurance policy with 33,599 foreigners. Most often, these were members of Ukrainian, Vietnamese and Russian minorities.

• 78,665 foreigners unable to join the system of public health insurance, used health care services in 2009. Most paid for the services in cash or through contractual or international health insurance.

• Within the scope of questionnaire research it was shown that more than two thirds of the respondents were satisfied with the complexity of the given information from the
health care staff and at the same time were more than half of the respondents satisfied with the language comprehension of the information given.

- On the significance level of $\alpha = 0.01$ statistically significant dependency was proved between the nationality of the respondent and his capability to communicate in Czech, the comprehension of the information and his satisfaction with the given health care. The comprehension of the given information was increasing significantly with increasing knowledge of the Czech language on the respondent side. With increasing communication capability of the respondents the offer of an interpreter from the health care staff decreased. With increasing age of the respondents satisfaction with given health care increased significantly.

- On the significance level of $\alpha = 0.10$ statistically significant dependency between the age of respondents and their ability to communicate in Czech and the offering of an interpreter.

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References

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ASPECTS OF MENTAL STRESS IN HEALTH PROFESSIONS

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Abstract
Contributors focused on issue of burden in the health profession, particularly in to a medical rescuer - paramedic. They define mental workload and stress. They lists effects of excessive workload, post-traumatic stress disorder, professional burnout syndrome. In an exploratory part they state issue of survey, where they define the goals of the survey, questions, selected sample, methods and research plan. The authors conducted a survey through structured questionnaire of their own design. Collected information’s and the survey results are shown in details in tables and graphs provided. Obtained results are discussed and authors analyses the burden in paramedics profession and suggest recommendations for professional practice.

Key words:
medical profession, paramedic, burden, Stress, dealing with stress, burnout syndrome

Induction
The overload load is a situation in which there is a conflict between the demands put on man and his ability to resolve them [Buchancová et al., 2003]. Type of work, motivation, self-success at professional work, achieving of social and economic targets affect levels of mental stress created at working process [Bratska, 2001]. Quantity and quality of non-compliance, which we are experiencing, reflects levels of psychological stress. [Bratska, 2001] distinguishes four levels of load. Normal Load, this group includes tasks with which we have already met several times and successfully resolve them. Such live of load do not make us a heavy burden [Bratska, 2001]. According [Oravcova, 2004] normal load is easy for human to solve it easily and successfully. It is usually automatic and stereotyped response for human to deal with such situation. Increased burdens (load) are such living and working tasks which we do not know so easily solve. They are a new and unknown for us [Bratská, 2001; Oravcová,
2004]. In such cases, we have to spend more mental energy until we learn how to the problem [Bratsk, 2001; Oravcová, 2004]. We able to adapt, learn new knowledge and when using them we are able to cope with the load, without damaging our health we have. Such a load has a positive impact on us as well, because it inspires us to strive to be always better, to expand our knowledge in professional practice and in other life situations. Border burden - at this stage we cannot talk about the positive impact on health. It is a significant discrepancy between our readiness and high requirements that are expected from us. We need to involve our reserves in order to cope with such a heavy burden. According [Oravcova, 2004] at the border load increases the negative impact on the psyche, but also on the overall state of human health. That the man can handle this level of burden depends on his mental strength. Extreme burden is huge gap between readiness and requirements that are expected. The contradiction is as much big that we are not able to resolve the situation. Mental failure is characterized by significant disturbances in behavior and also has negative consequences to human health [Oravcova, 2004, Bratska, 2001]. Also to determine the degree of burden is difficult, because each person is different. As we are able to cope with the burden also depends on its duration. Prolonged heavy load can aggravate the situation [Bratska, 2001]. According [Plaminek, 2008] the stress is a state of tension, to whom the human body responds to stimuli. [Durdiak, 2001] describes psychological stress as work overload, which manifests itself as feelings of exhaustion of overworked man. Time pressure occurs often is nowadays, especially when a person has to manage many activities in a very short time. Stress resulting from excessive responsibility having stressful impact, especially to a people in higher positions and are responsible for management of other people who work as their subordinates. Stress often has negative impact o their health. Its negative impact is proportional to the length of stress action. Buchancova [2003] divides the stress to - acute stress, which occurs under the action of strong and unusual stimuli. When they act they can cause break of physiological mechanisms of maintaining homeostasis of the body. Stress activates the simpatico – adrenalin system, response to the situation is or „escape“ or "fight ". Chronic stress can lasts longer in the form of micro-stresses (everyday problems, difficulties), while the man cannot resolve them. In this case, the simpatico - adrenal system attenuates and the pituitary – hypothalamus system is activated [Buchancova, 2003]. Causes of stress can have an objective character. In the external environment it can be noise, low light, small space. In our lifestyle they are - a disease, lack of time, irregular daily routine, lack of time to relax. In the work
environment it can be increased workload, great responsibility, problem solving out of working time. In interpersonal relationships - conflicts with our loved ones, their problems, illness. The subjective nature causes - self-criticism, fear, despair, anger, insecurity, inability to relax [Durdiak, 2001]. In paramedics practice, there are many serious, unexpected situations like mass casualties, natural disasters, war, death of loved ones, rape victims, high risk when acting, which can initiated pathological mental state and disorders [Vargová, 2007]. Posttraumatic stress disorder is a disorder in which the consequences of stress affect the lives of suffering persons. It start as a complex response to extraordinary stress or disasters, serious injuries, deaths of loved ones, divorce, violence [Vargova, 2007] Healthcare is one of the disciplines in which is the great risk of burnout. Burnout itself manifestation is under stress and reaches into the psyche, which is manifested by fatigue, emotional and cognitive exhaustion, feelings of vanity, doubt, loss of energy, blaming others and himself. Worker loses creativity and motivation to carry out their work, empathy, after some time he ceases to communicate. In the physical area the syndrome manifests itself by fatigue, sleep disturbances, stomach problems and stress. Manifestation of burnout in social area: workers build formal links only, links, they have lack of interest of the patient they avoid a team of people [Kapounová, 2007]. Developmental stages of burnout [Vargová, 2007]. Passion: At early stage of employment a man is usually looking forward to work, is very strive, yearns to be the best, wants achieve success, he is using a lot of energy to achieve the target. Stagnation: Man no longer works diligently, he feels that has no time to do what he did before, his job is no longer such a joy. Frustration: He is not feeling well at work, he has no sense of work, he doubts whether he wants to continue his job. There will start conflicts between him and other workers, will start emotional and somatic problems. Apathy: At this stage a man is not keen to solve problems, he is not interesting in. Burnout: Complete exhaustion of the organism. At this stage the problem can be solved only with major changes such as. changing workplace, job. [Vargova, 2007]. Křivohlavý [2007] states that the purpose of stress relief is to reduce the stressful factors, try to tolerate unpleasant events, maintain a permanent mental balance, actively regenerated after negative experiences. Adaptation means to cope with the burden that we can solve ourselves, with our skills and experience. Innate characteristics, personality, experience, knowledge of lived events, readiness to cope with the burden affects adequate coping [Buchancová, 2003]. Copping - Copping - handle anything. Includes procedures that facilitate psychosocial handle pressure. It is a set of
processes by which it can influence the course of stress response [Večerová, Procházková, 2005]. According Krivohlavy [2007], the aim of stress relief is to reduce the stressful factors, effort to tolerate unpleasant events, maintain a permanent mental balance, active regeneration after negative experiences. Adaptation means to cope with the burden that we can solve ourselves, with our skills and experience. Innate characteristics, personality, experience, knowledge of lived events, readiness to cope with the burden affects adequate coping [Buchancova, 2003]. Coping a ponytail from the English word, means to handle something. Includes procedures that facilitate psychosocial handle pressure. It is a set of processes by which it can influence the course of stress response [Vecerova, Prochazkova, 2005]. This includes positive interpersonal relations, social contacts in family and at work, skimps on psycho hygiene, regular diet and adequate rest [Vecerova - Prochazkova, 2005]. Coping is a higher degree of adaptation. It is needed to manage borderline and extreme loads. Such situations arise suddenly and often we do not even know to respond to them [Krivohlava, 2001]. According Oravcova [2004], coping is efforts of man to handle the situation, regardless of whether it succeeds successfully or not. According Vlaskova, Kolarova [2009] defusing is similar to debriefing, but it is a shorter group interview (lasts up to 45 minutes) and is suitable for small groups of people. It takes place immediately or up to 8 hours. The aim is to reduce the cognitive, emotional and physiological symptoms. Seblová states [2004] that defusing is shorter form of debriefing, which must take place after the events from up to 24 hours a week. Debriefing (from England. Debrief-hear the message) and defusing is similar to (from England. Defuse - ease, calm) in the world are often used method in the field of mental health. These methods are part of the Critical Incident Stress Management (CISM hereafter) - Managing stress from traumatic events, which is an internationally recognized post-traumatic care system and is used by paramedics, police, firefighters, army [Vlaskova, Kolarova, 2009]. Debriefing is a process in which psychologists are trying to use group therapy to help emergency units workers to cope with stress and stress situations and thus to prevent the potential mental and physical difficulties. The symptoms of nervous strain is particularly insomnia or excessive sleeping, loss of appetite or excessive appetite, lethargy, etc. [Bettie, 2002]. According Vodačkova [2002], an essential element is to work with a group of people who survived the same traumatic event and they cannot handle it alone. Memories of events cause unpleasant thoughts and feelings. The aim of debriefing is to help these workers understand that their reaction is inherent in the particular situation and that the others are
experiencing the same. They learn to share their experiences, understand and acquire their reactions and the reaction of surrounding area. The staff of emergency units are working in groups, so it is a higher chance that the problems of one of them the others will notice. It is the first steps to start solve the problem. Affected worker can realize that this is not just his problem. During the debriefing, each participant has the opportunity to talk openly about their traumatic experiences, which he survived. Into the group therapy there are mainly involved workers who participated in the intervention and were exposed to great mental stress [Beattie, 2002].

**Survey objectives**

Paramedic profession paramedic is very challenging on the psyche and also on physical health. Excessive and prolonged exposure of an adverse effects, heavy workload and stress can lead to various physical and mental disorders, which affect not only the individual's working life and as well as their private life. Because the psychological burden is the most problematic issue in paramedic profession we tried to find some answers how to deal with. The survey we conducted via questionnaire in a group of paramedics. During the review of the problem, we asked several questions: What kind of burden predominates in paramedics. How is their to respond to overload? How to handle the overload? What elimination technique they use to handle the work overload? On the base of literature and surveys already made we set the main objective of the survey: identify and define the burden in paramedic work at work. Given the main objective, we came to the following partial goals: C1: To assess and compare the difference in the perception of workload between health professional rescuers with a length of service up to 15 years experience and over 15 years. C2: Check and compare the difference in the perception of mental stress at the start (exit from the base) of medical emergency services among the ambulance workers with length of experience up to 15 years and over 15 years studied. C3: Identify and compare ways to relief the burden on the profession of paramedic Ambulance workers with long experience in 15 years and over 15 years. C4: Verify and reconcile the need to minimize the burden with the help of a psychologist in the profession of paramedic Ambulance workers with long experience in 15 years and over 15 years.

After determining the objectives of the survey we set the survey questions:

O1: Depends on the perception of the burden of health care professional rescuers on the length of practice in 15 years and over 15 years?
Q2: Is there a difference in the perception of mental stress at the start (exit of ambulance from base) of medical emergency services among the ambulance workers with length of experience up to 15 years and over 15 years?

Q3: Is there a difference in the removal of stress in the profession of paramedic dependent on professional practice length?

Q4: Is there a difference of needs to minimize the burden through the profession of psychologist between paramedic with length of experience up to 15 years and over 15 years?

Survey methods
We used a biography study which to served us to determine the theoretical background of work. We conducted the survey with a questionnaire of our own design. The survey was conducted for the purpose of analyzing and managing the stress in work of paramedics rescue team. Information’s we obtained from respondents with use of the questionnaire we evaluated in percentage. Subsequently the data obtained were analyzed and compared. We clarify up the results in tables, graphs and textual interpretation.

Exploratory sample
The exploratory sample consisted of 30 respondents. The first group with a length of 15 years up to practice consisted of 13 respondents: 8 women (62%) and 5 men (38%), The second group with a length of over 15 years experience consisted of 17 respondents: 10 women (66,67%) and 7 men (33% ).

Survey plan
After studying biography in the period from June 2010 to September 2010 we set the theoretical background of work. In the period from October 2010 to April 2011 we dealt with the preparation, execution and processing of the questionnaire. The research was realized through a structured questionnaire we originally designed. Completing the questionnaire by paramedics was voluntary and anonymous. We asked the director of the company ZaMED s.r.o. the possibility of carrying out the survey. After obtaining written consent, we distributed 30 questionnaires to 7 rescue stations. Return of questionnaires was 100%.

Discussion
To meet our goals and to confirm the set up survey questions we chose the method of a structured questionnaire. In Slovakia, Dr. Vargova is devoted to the issue which claims that psychological support is needed as it is currently lacking [Vargova, 2007].

Company employees ZaMED Ltd., paramedics, were our respondents who answered the questionnaire. Selection of respondents was targeted. We found differences that depended on the seniority of respondents. The first set goal and question was C1: To assess and compare the difference in the perception of workload between health professional rescuers with a length of service up to 15 years experience and over 15 years. Q1: Depends the perception of professional burden - stress of health care professional rescuers on length of practice up to 15 years and over 15 years? We found that the majority of paramedics in both groups considered the profession of rescuer burdensome and stressful. We came to a finding that the majority of paramedics in both groups chose unwarranted departure, the second option also has a similar percentage of respondents from both groups considered trip to pediatric patients. Most respondents (46%) with a length of 15 years experience to think that the workload and stress affects their personal lives, so the majority of respondents (65%) with long experience of 15 years think that their personal life absolutely does not affect the workload. This claim was to rescue our surprise, as were differences in perceptions of both groups of respondents essential. We came to a finding that the majority of paramedics in both groups believed that their workload affects. Based on these responses can be stated that: perception of the burden for professional medical rescue depends on the length. We can state that consistently affects their workload and stress for the conduct of the profession. To the following finding was reached in both groups of medical rescue. We came to a finding that the majority of paramedics in both groups chose unwarranted trips, the second option also has a similar percentage of respondents from both groups considered trip to pediatric patients. Most respondents (46%) with a length up to 15 years experience think that the workload and stress affects their personal lives, so the majority of respondents (65%) with long experience over 15 years thinks that their personal life absolutely does not affect the workload. This rescuer claim surprises us, because there were differences in perceptions of both groups of respondents essential. We came to a finding that the majority of paramedics in both groups think that the workload affect them. Based on these responses can be stated that: perception of the professional burden in professional medical rescuer depends on the length of their professional service. We can state that they are consistently affected with their workload and
stress when conduct the duty. To the following finding was reached in both groups of medical rescue.

![Graph 1: Perception of the burden in paramedics.](image)

The second aim was to C2: to verify and compare the difference in the perception of mental stress at the exit of medical rescue in length to 15 years experience and over 15 years. Q2: Is there a difference in the perception of mental stress at the exit of medical rescue in length to 15 years experience and over 15 years? We learned that the majority of both groups think of these loads is the most common psychological stress. With increasing length of practice decreases the perception of mental stress at the exit to pediatric patients.

The second goal was C2 - to verify and compare the difference in the perception of mental stress at the exit of medical rescue team in between the members up to 15 years experience and over 15 years. Q2 - Is there a difference in the perception of mental stress at the exit of medical rescue team in between members with length in service up to 15 years experience and over 15 years? We learned that the majority of both groups think of these loads is the most common psychological stress. Surprisingly, the majority of rescue workers from both groups were unable to decide. With longer practice decreases the perception of mental stress at the exit to visit pediatric patients.

Nádaská (2006) aptly states that "meeting the needs of the child is one of the most important requirements of child care provided by anyone, anywhere." Boledovičová (2006) states that child care is significantly different from the care of adults. In
many manners is very similar as well. Diversity of care is caused by several aspects, such as their age, development and mental level, the attitude of parents and their willingness to cooperate. Every child is an individual that has its own unique characteristics, attitudes, opinions and needs. Condition for a successful acquisition of history is to gain the confidence of the child and his parents, tact, especially in intimate matters, enough time and the confidentiality of all data obtained. Modern principles of treatment based on the assumption that not every patient requires the same intensity of care in various periods of his illness, therefore graduated medical and nursing care. It is a differentiated system of care and its rationale especially in terms of intensive care [Vörösová, 2005]. Ilievová (2009) aptly stated that medical profession is based on interaction with patients. The universal criterion applies to those personal qualities predetermine how it will establish relations with its environment, and communication will contribute to an atmosphere of trust, or vice versa, it will break it. Access, communication is leaving in the patient's survival an response, which may be even stronger, if is your patient's vulnerability higher. In case when the patient owing to his health condition, situation, experiencing anxiety, uncertainty, fear, then the appropriate atmosphere, understanding and support is appropriate. In case of absence his anxiety may increase and this can make the process of healing worsen. Most of the rescuers themselves is feeling a slight psychological burden resulting from their profession. Most rescuers (54%) from the first group (with under the 15 years experience in) are known to cope with psychological stress after the exit, but they are little worry about. Respondents (88%) with over 15 years experience have no problem coping psychological stress of the trip. Based on these responses can be stated that: perceptions of mental stress in medical emergency services depend on length of service. Based on the survey conclude that with increasing length of practice decreases the perception of mental stress.
Another aim was C3 - to identify and compare ways to remove the burden of paramedic profession. Q3 - Is there a difference in the removal of the load in the profession of paramedic ambulance workers with experience under 15 years and over 15 years? We found that most respondents from both groups cut stress spending time with their partner or family. Respondents under 15 years experience has in 46% leisure activities 2 or more times a week, 39% once a week and 15% once a month. The group of respondents with a length of experience over 15 years is dedicated to these activities as follows: 41% once a week, 29% 2 or more times a week, 18% had no hobbies or activities at all, 12% of respondents is not providing any activities because they do not have time for. Majority of both groups reported the need to smoke a cigarette. Of the group with less 15 years experience, 15% of respondents or watch TV, 15% fill up the energy and 15% workers discuss with colleagues about the trip to patient. Of the respondents with long experience above 15 years, 24% fill up the energy, 18% is talking with colleagues generally and 6% discuss with colleagues on the previous trip. Majority of respondents from both groups reported the need to light a cigarette. Respondents with under 15 years experience compensate the stress as follows - 15% sports, 15% cooking. Respondents with experience over 15 years have chosen the following responses - 12% sports and 6% housekeeping. Based on these findings we can conclude that there are differences in the methods of removal of the stress between the ambulance workers depend on length of experience under 15 years and over 15 years.
The ultimate aim was C4 – to verify and compare the need to minimize the stress by psychologists in the profession of paramedic with experience under 15 years and over 15 years. Q4 – Is there a distinction in needs to minimize the burden through the profession of psychologist in the paramedic ambulance workers with long experience in 15 years and over 15 years? Majority of both groups think that psychological counseling is needed, none of the respondents expressed negative about it. The psychologists help should adopt a positive majority of respondents from both groups of respondents. Most rescue workers with experience under 15 years would adopt special individual treatment. The majority of respondents with experience over 15 years would prefer to attend group therapy. We have found that about a debriefing heard all (100%) of respondents from groups with experience under 15 years, in the group of respondents over 15 years practice the ratio is 94%. Based on the survey, we found that rescue workers from both groups would welcome the assistance of a psychologist to working paramedic. The only major difference we found was individual or group therapy request.

C4: verify and reconcile the need to minimize the burden by psychologists in the profession of paramedic with experience in 15 years and over 15 years.
Conclusion
Paramedic profession and work in rescue team is difficult, burdensome and stressful. Paramedics are exposed to various critical and very difficult situation, they have to be mastered, so that they have do work well in arduous and stressful conditions. Prolonged stress may then can cause emotional, physical and psychological changes that affect not only their professional but also personal life. We must always remember that rescuers have emotions, fear, exhaustion, are not perfect, infallible, invulnerable. Paramedics are professionals who live for their work and especially for the preservation of human life, body and soul.

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The importance of newborn individualized developmental care at neonatology intensive care unit

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Abstract

Neonatology in the Czech Republic is at a very good level in comparison with Europe as well as the world. As far as newborn mortality is concerned, we belong to ten countries of the world with the lowest number. The objective is not only to describe nursing care of the high risk newborns at the Neonatology Intensive and Resuscitation Care Unit but also to identify parents’ feelings how they perceive the provision of the newborn individualized developmental care at the ICU (Intensive Care Unit). Providing intensive care for the high risk newborns in neonatology does not only mean to master duties perfectly but it is an art. It is possible to recognize (according to her/his reactions and behaviour) individual newborn baby problems and his/her needs and react to them. The effort to enable the parents contact on time with the child helps rebuild and develop the relationship impaired by premature labour. We can help both the mother and the infant by involving the parents into nursing care. The hospital stay of a mother which lasts several weeks as well as months is very demanding for nursing staff. It has taken up a lot of time to change the system and attitude of providing the individualized nursing developmental care of the high risk newborns mainly premature born infants when the parents have become very important partners for nursing staff and they have become involved into a nursing process in providing nursing care.

Key words: nursing care - high risk newborn - neonatology - Neonatology Intensive Care Unit - parents
Introduction

Expectation and birth of a child is one of the most beautiful event in a family life. All parents expect their baby will be healthy and everything will be without problems, unfortunately the situation can develop differently. Admitting a child to the Neonatology Intensive and Resuscitation Care Unit implies that everything is not as good as it has seemed.

The admission of a newborn can be very stressful for the parents as well as for the whole family. Neonatology dealing with the newborn period problems has made big progress in the latest two years not only referring to new facts in this area or a technical development. It was also the period when the entirely new attitude towards premature born infants started. Gone are the times when the parents did not have sufficient space for their personal contact with the baby or when they could look at their baby through the incubator walls. They do not have to wait several weeks for the first touch, caress of their own baby. It means the opinions about immature newborns have been changed. She/he has become a rightful individual who has her/his own specific needs but she/he needs a feeling of love, security and confidence.

The main stimulus to devote to the nursing care problems about high risk newborns at the Neonatology Unit, mainly at the Intensive and Resuscitation Care Unit, was the effort to ensure good conditions through the program which aims at the newborn individual care resulting from the evaluation of her/his development and behaviour. Taking into consideration the fact that the emphasis is laid on the cooperation with the parents and their early involvement into newborn care, it is important to focus on the evaluation of an individual nursing developmental care of a high risk newborn from the parents’ view but also from the nurses working at the NICU with the aim to make life easier for the parents.

Neonatology deals with the care of newborn infants in a wide range of states – from the healthy full – term babies with some congenital developmental defects and morbid conditions up to extremely immature newborns with very low weight of birth. This branch was developed during 20th century [Borek at al. 2001; Dort 2006]. In the very beginning the specialists tried to keep the premature newborn infants alive. The fast development of this branch happened after the invasive medical methods about premature infants were introduced into the care. It was especially ventilatory support during the second half of twentieth century at the establishing NICU. At the end of twentieth century neonatology had the most modern
technology. It was possible to use e.g. device for conventional and non-conventional ventilation, extracorporeal membrane oxygenation, application of dioxide nitrogen, invasive and non-invasive vital signs monitoring and so on for diagnostics and treatment leading to save lives of the infants. Furthermore, it was possible to use X-ray and ultrasound devices for the diagnostics right beside the bed or incubator where the infant was. Modern pharmacotherapy has made big development including the possibility to apply exogenous surfactants. Neonatology cooperates with the specialists from other medical and non-medical branches [Straňák 2008]. Some regional neonatology centres with the Intensive and Resuscitation Care Unit for very and extremely immature newborns up to the viability level (24 weeks of gestational age) and for risk newborns with specialized and superspecialized care are gradually establishing from some standard neonatology units [Lebl at al. 2003].

The children with some perinatal complications demand (after discharging to home care) further, a very long-term outpatient observation and a solution of the possible health and developmental problems in a specialized ambulance.

Besides highly-specialized and intensive care about the high risk newborns, neonatology specialists also provide the physiological newborns with proper care so that their beginning of life is harmonious, undisturbed and satisfied [Dort at al. 2005].

The branch dealing with standard as well as specialized care about newborns is called neonatology. It is part and parcel of perinatology which can be defined as an interdisciplinary branch dealing with the care about healthy development of a new individual and the disorders of this development in perinatal period [Velemínský at al. 2005]. In the Czech Republic there is a system of regionally different care about a pregnant woman, foetus and infant which works effectively and is provided by the perinatal centres. Perinatology in our republic is carried out by the so-called three-stage regional system of care about a pregnant woman and newborn [Fendrychová and Borek 2007]. Level I neonatology takes care of the physiological newborns and the newborns with a significant prolonged postnatal adaptation who can be treated by roaming-in system after their adaptation. Level II neonatology is concerned with intermediate care which solves on top of that the pathological and immature conditions from 32 week of gestation which do not require any intensive care. Level III of newborn care associates level I neonatology care, intermediate care workplace and provides intensive and resuscitation care of the newborns who demand long-term and resuscitation care. The third
stage of care is provided in the neonatology centres that are part of the regional perinatal centres in the Czech Republic (nowadays here are 12 statutorily). Criteria for providing care on these levels are clearly defined by the Ministry of Health. Standard newborn care is provided in every maternity. The newborns with extreme low weight of birth are brought into the world in the regional perinatal centres or are transported in them through the system of special transport service destined for these newborns [Lebl at al. 2003].

To ensure quality care in neonatology demands not only a good organization and a conception of a functional system but also educated and perfectly prepared specialists, care providers. The certain criteria and indicators have been formed to evaluate quality of care provided [Zibolen at al. 2001]. Through these indicators it is possible to evaluate and compare the current state and evolutionary trends of the output of care in long-term period not only among our workplaces, regions but also in the world.

Every year some priorities are set on the base of this result analysis, i.e. the risk groups of newborns or areas of care where there are some reserves compare with the world class. The present priorities mainly relates to late morbidity of the extreme immature newborns and serious health handicaps. Statistic data about newborn mortality and morbidity with low weight of birth differ significantly if the newborns were born in the perinatal center or were transported into the respective center after their birth. The centres provide not only the care about critically ill newborns, resuscitation and invasive care, transport service for newborns but also consult possible problems with lower types of neonatology workplaces [Fendrychová 2009].

Transport of newborns in uterus is the most careful way which is possible for them. Transport of the newborn infants is ensured by a functional unit itself. The newborn transport system which is available for 24 hours a day and is guaranteed by a specialized team that knows principals of newborn intensive care including her/his resuscitation. Materials and equipment must be on the top level too. The newborn transport must be the most careful with regard to keeping optimal processes which minimalize and eliminate the deterioration of the state. It is necessary to ensure a child very well before the transport to guarantee stabilization as good as possible of her/his health and comfort during the transport [Fendrychová 2004b].

Care about the mother and her newborn must be guaranteed by a multidisciplinary team which contains the neonatology specialists, obstetricians, geneticists and others [Velemínský
and Velemínský 2007]. Among specialists, within providing regional care, there must be a mutual cooperation, a creation of functional and mutually connected networks not only in patients’ care but also in an education area. The development of neonatology has influenced the whole children’s world. Neonatology has improved the outlook not only for premature infants and their surviving, but also it has influenced positively the quality of their lives. Intensive newborn care participates significantly in a reduction of natimortality. The aim of specific neonatology care is a prevention and treatment of complications of postnatal adaptation, to follow the development of high risk newborns and a suitable developmental intervention in such a way to enable each child to lead the life as high-quality as possible [Dort 2000].

A high risk newborn is the child who is exposed to risk factors (high-risk childbirth, postnatal hypoxia) during pregnancy, childbirth or after childbirth. A greater attention is paid to these children because their development before their childbirth, during childbirth and after that is not ideal and makes the risk higher or brings some complications which threaten further physical and mental development of single individual [Borek 2001].

The following are the newborns who belong to the high risk ones:

10. premature children (born before 38 gestational age)
11. newborns with low weight of birth
12. postdated newborns
13. hypertropic newborns
14. children with congenital & development defects
15. children who had an infection in the perinatal period, hypoxia or birth trauma [Fendrychová 2005a; Fendrychová at al. 2005b].

NIDCAP – The Newborn Individualized Developmental Care and Assessment Program about the high risk newborns at the ICU
In the 80s care of these newborns was more and more dependent on technology and became continuously more aggressive and intensive (e.g. mechanical pulmonary ventilation was increasingly accessible for very immature newborns) and in this way the need of day to day care of the highly-qualified nursing specialists started rising for the newly-established neonatology units of intensive care and subsequently for the perinatal centers where the immature and postdated newborns (who were transported mainly in uterus) were treated there [NIDCAP http://www.nidcap.org/default.aspx 2010-11-17; NIDCAP http://www.nidcap.org/2011-01-10 and 2011-01-10]. The stumbling block of nursing care in this period was the fact that nurses were too busy by observing equipment functionality and their care was assessed how quickly and skilfully they would prepare the ventilation and put it into operation or how technically well they knew a monitor but their behaviour, caress and other aspects of so needed „affectionate care“ were criticised [Fendrychová 2004c].

A great development became in the 90s when the Czech Neonatology Organization was established, the national perinatal program was adopted by the government and 12 perinatal centres were founded [Troupová 2010]. Nurses in that period had a possibility to enrich their knowledge and to collect new valuable experience in nursing care which had been used in the neighbouring countries (in the form of short-term attachments). The style of provided care started changing – supervision of noise level, noisy vibrations, noisy behaviour, light, etc. and their negative impact on the development of immature and premature newborns. The staff was instructed about the study results and about the necessity of quiet behaviour, the prevention from noisy vibrations, the incubatorcovering with the dark blankets but as well as the essential change of nursing care. The focal point of special interest was care about extremely immature newborns with the weight below 1000 g and mainly from the view of their morbidity and long-term disability. More and more number of the high risk newborns, mainly those who were born with an extremely low birth weight are given a chance to survive, to lead the life in a relatively quality way with a serious handicap (whose origin cannot be always prevented), due to modern therapeutical technologies and new findings in the area of NIDCAP [Fendrychová 2004a; Fendrychová 2009; Fendrychová and Borek 2007].

The priority of the care at the Neonatology Intensive and Resuscitation Care Units is not only to save lives but also the effort to optimize their health and to ensure suitable conditions for their other development [Sobotková 2001]. The so called individualized developmental care about premature newborns and their parents is gaining ground nowadays
with the aim to safeguard the developing central nervous system of an aborted infant [Špidlenová 2008].

The Newborn Individualized Developmental Care and Assessment Program – NIDCAP is a program aiming for individual newborn care and resulting from the assessment of development and behaviour. This care is to safeguard the developing central nervous system of premature newborns. The authors of this program, the team of specialists with Heidelise Als at the head of the team, call this care as „brain care“. The base is to observe child’s reactions attentively and continuously and to look for a suitable treatment way which would not influence the child disturbingly. In these premature children there are some neurofunctional differences of the central nervous systems. The important feature of the NIDCAP is to acquaint parents with the individual care program about premature newborns, to teach them to observe their child, to understand her/his behaviour and to involve them into this nursing program as soon as possible. The implementation of this specific care into everyday newborn care demands trained specialists for observing children’s development, enabling to estimate the developmental infant changes and to react to them, to estimate her/his individual needs and behavioural characteristics. The professionals providing developmental care should not have only the medical knowledge, but also the knowledge about psychology and education. The application of this developmental care requires to understand children, parents and families. Parents’ involvment into everyday care about their premature newborns contributes to more suitable child’s care, brings the feeling of mutual closeness and fellowship with the child and contributes in this way to creating the optimal emotional environment. A positive attachment between parents and children is created more easily – this attachment is important for further child’s development. The care about a premature newborn and her/his parents are to be taken continuously – it is a big part of the nursing process which go on after releasing into home care.

The gist of this modern, complex care about a premature newborn infant is a reduction of its extent to indispensable activities and not to ignore any psychosocial support of the child and her/his parents. In practice it means to provide the elements of an intensive care (artificial pulmonary ventilation, invasive activities and others) only for the newborns because they are very important and they need them which assumes the elimination of non-essential activities at the ICU. The non-essential activities are the source of stress for the newborns and their parents [Fendrychová et al. 2005b; Fuchs et al. 2001]. It is important to let a child and her/his
parents have a comfortable environment, a possible physical contact at the most (by child’s health condition) and give her/him a considerate, kind and careful care.

The aim of the complex care about immature newborns is as well as to create suitable conditions for her/his growth and maturity, prevention from psychosomatic and neurosensoric impairments, privations and psychosocial deprivations. It is important to introduce new processes and to use the findings on whose base the individual needs will be satisfied and to respect parents’ needs of the children who are treated and surrounded by the most complicated and the most modern equipment [Špidlenová 2008].

The role of nursing staff is mainly in an education and encouragement of the mother during premature newborn care [Dort et al. 2005]. Furthermore, nurse’s role is to give instruction in the right hygiene and of how correctly keep lactation aids. The nurse leads the mother in all aforementioned steps which are associated with the maturity and state of the child.

**Conclusion**

The hospital stay of the high risk newborns is long and sometimes lasts several months that’s why it is necessary to ensure a contact with their parents over the whole stay. The parents are encouraged and supported to participate in the child’s care actively from the very beginning. The parents can visit their child regularly and unlimitedly at the Intensive and Resuscitation Care Unit where they are encouraged by nursing staff to caress, touch and speak to the children. The nurses are near by and are prepared to communicate with the parents about children’s problems and needs, to provide them with valuable information and answer patiently and discreetly all their questions about provided care and ensuring newborn baby needs.

The parent has got the important role, however it is clear how important role the medical staff has got for an immature newborn – the staff can replace temporarily the family and can meet the psychosocial newborn baby needs [Fendrychová and Borek 2007].

The medical staff, especially nursing staff is very important for the premature newborn parents as well, their sensitive, discreet approach to the parents, supplies with important
information on the base of their competences, further providing emotional back-up and help
to cope with a formidable or rather difficult situation in which the premature newborn parents
are. The responsibility for the contribution in the mutual contact is gradually forming both
sides, the parents and the medical staff as well [Sobotková 2001]. One of the important aspect
of nursing care is to supply parents with information but in this context there can be some
useless misunderstanding when the parents would not understand the information provided. In
this respect a feedback is necessary when nursing staff persuades them of comprehensibility
and understandability of an interpreted problem. A good and effective communication is
necessary for a successful cooperation with the parents. The words a nurse uses within
providing information and education must be comprehensible enough. It necessary to bear in
mind that parents do not like being instructed and no less important it is to respect parents´
decision [Kopáčiková and Stančiak 2010; Kopáčiková at al. 2009; Šemberová 2003; Stančiak
at al. 2008]. Shaping mutual good relationship of confidence between the parents and the staff
which is based on workmanship, respect and empathy is often a supporting pillar for parents
´adaptation to a hard life situation, nursing staff does invaluable service (which can be call
supporting psychoteraphy) for the parents in this way.

However, a common hospitalization of the parents (the mother) with their child brings
higher demands for medical, especially nursing staff in the psychical, time and material
respects. It is necessary for nurses to know all actual parents´ needs and always try to meet
them [Hlinková at al. 2011]. The parents whose child is hospitalized at the Intensive and
Resuscitation Care Unit, gradually go through tree developmental stages [Peychl 2005].

Naive trustfulness is the first stage when the parents need mainly an adequate amount of
information, reassure and to find the security and support feelings in their isolation. After
that there is disillusionment stage when parents start being interested in the nature of the
care which is provided to their child. The third stage is called alliance whose goal is to
establish a friendship with nurses mainly and they try to achieve the planned goals together in
the area of child´s care. This stage lasts until child´s releasing into home care. It is essential
for the staff to identify well in which stage the parents are. The cooperation between parents
and nursing staff can be changed in the period when a meaningful change in child´s health has
happened and nurses can notice a change in parents´ approach. Mostly they start analysing and
assessing nursing care and each single intervention performed on their child and the situation
can be developed into an unpleasant conflict with the staff. The nurse is a guide and a support
in the nursing process which makes her work very psychically demanding mainly [Fendrychová and Borek 2007].

This article is a probe into an implementation of the nursing care problems with a modern program usage of the individualized developmental care about high risk newborns, mainly about the immature and premature newborns, implemented in our healthcare. It is important to find some reserves in providing the high risk newborns with nursing care and to ensure their harmonious bio-psycho-social development. Next to suggest the effective steps which can be a source for a nursing care improvement and at the same time a guideline for the whole healthcare team leading to a mutual effective cooperation and satisfaction of all members including the parents.

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EDUCATION OF HOSPITALIZED PATIENTS IN THE PREVENTION OF FALLS

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ABSTRACT

Introduction: Health care facilities in the Czech Republic (CR) pay significant attention to the continual improvement of the quality of health care. The quality of nursing care can be measured by the specified quality indicators. Falls in hospitalised patients are monitored in the Czech Republic since 2002. They are from the point of view of nursing care the most common emergency situation.

The aim of the present study was (1) to determine the number of falls in healthcare facilities in the Czech Republic and (2) to analyze the severity of injuries in patients over 65 years.

Material and methods: The data are reported by the responsible personnel quarterly by 15th of following month. The obtained data are sent back to the coordinator of project Czech Association of Nurses (CAS) by the last day of following month. Monitored value is rated as the health care quality indicator – number of falls per 1000 health care days.

Results: In 2002, 15 health care facilities took part in this project, in 2010 this number increased to 38 health care facilities. This study presents the results of hospitalised patient falls monitoring in years 2004 – 2010. Quality indicator – number of falls causing injury per 1000 nursing days is from 2004 slightly increasing.

Conclusions: Prevention of falls is in the nursing practice very serious issue because injuries of such kind have usually the long term consequences and they are accompanied by the reduced mobility of patients.

Key words: education, quality, fall, health care, patient

INTRODUCTION

The history of health care quality programs started in the USA in the beginning of last century. The founder of this discipline is Ernest Codman. In 1917 the American College of
Surgeons developed the basic standard for hospitals – only 15% of hospitals met the desired standards during the inspections. In 1926 was released the first printed manual. Since 1950 more than 3200 hospitals started to follow the accreditation standards. In 1951 was established the Joint Accreditation Commission for Hospitals. This organisation started to release the standards in 1953. In 1970 the optimal level of quality replaced the minimal level of quality (Gladkij, et al., 1999).

In 1987 the name of this organisation was changed to Joint Commission on Accreditation of Health Care Organisation (JCAHO). In 1988 was developed the new system of the evaluation of indicators – Indicator Measurement System (IMS). JCAHO nowadays evaluate more than 15 000 health care facilities in USA. It is independent and non-profitable organisation. IMS includes indicators in the areas of cardiovascular diseases, anti-epidemiology measures, obstetric, oncology, surgery care, medication and injuries. In 1998 was established the Joint Commission International Accreditation (JCIA) (Mastiliakova, 2003).

EFQM – European Foundation for Quality Management was established in 1988. Its mission is to stimulate the European institution to the improvement of their work with the goal to reach the high level of the satisfaction of customers and employees and the positive impact on the profits and society (Škrla, Škrlova, 2008).

In the Czech Republic was in 1998 established the Joint Accreditation Commission (SAK) as the independent organisation of health care providers. Its founders were the Association of Hospitals of the Czech Republic and Association of the Czech and Moravian Hospitals. In 2000 The Czech Republic government defined with its resolution No 458/2000 The National policy of quality support and at the Ministry of Health was established The Council for the quality in the health care. The Ministry of Health also started the institutionalisation of the health care quality programs and projects.

**Legislative norms for the monitoring of health care quality in the Czech Republic (CR)**

Evaluation of the quality and effectiveness of the work with client
The system of evaluation is easy, flexible and transparent for all employees and clients. There are written records of the effectiveness and quality of the health care. Evaluation reports are clear, accurate and understandable for the target audience. Accreditation is the oldest and most known form of the external evaluation of health services. It is using the standards developed and continuously improved by the health care sector in order to provide the secure and high quality care. It is a voluntary process in which the organisations (mostly non-governmental) evaluate the provided health care and determine if the care meets the standards for the preservation and improvement of the quality of health care.
The ultimate goal is the improvement of quality, reduction of expenses, increasing of effectiveness, increasing of incomes from the health care payers, strengthening of the public trust, improvement of facility control, providing of education, comparison with other facilities and the increasing of self-confidence.

Factors influencing the incidence of falls in the Czech Republic

Aetiology of falls
Every fall of senior means a very serious prognosis. Ill patients with falls have 4-6 times higher mortality (it increase with the age, after 65 years it multiply twice every decade). In case of elderly patients the fall can be described as the result of the sudden malfunction of static postural mechanisms when the balance can not be restored by volitional or reflexive reaction.

1. Collapsing falls – they are usually connected with the sudden worsening of a chronical illness. The causes may be cerebral – epilepsy, cataplexy, TIA, sudden increase of the intracranial pressure or extracerebral – orthostatic hypotension, cardiac syncope.
2. Fainting falls – caused by the serious balance disorders. Can be caused by ischemia and mezencefallhemorral, thalamus, lesion of the frontal lobe and white matter.
3. Trip-type falls – patient fall forward with extended upper limbs. Fall when patient encounters unnoticed raised object in his walking path. This can be caused by the peroneal paresis or by the reduced elasticity of leg, walking disorder with shuffle – Parkinson’s disease or frontal apraxia.

4. Freezing-type falls – similarly as in the case of tripping the patient falls forward. The fall is caused by the “freezing” of leg during walking when the body continues in frontal movement without the making of step.

5. Unsorted falls – In some cases the fall cannot be phenomenologically sorted. They can be caused by the carelessness, inadequate style of walking or by obstacles in the walking path. Such reactability errors are typical for the persons with dementia or with the lesions of frontal or parietal lobe. Sometimes it is connected with the age related disorders of sensory functions or with the condition of locomotion apparatus (CAS, 2008)

**Division of falls**
Symptomatic falls are related to diseases. Mechanical falls are caused by the outer environment, mainly by the equipment in hospital room, health care environment or at home. Into the hazardous factors belong walking and stability disorders, polypharmacy (using of psychopharmacs), deteriorating of activities of daily living, dementia, depression, anxiety, reduced muscle strength, lower limbs proprioception disorders, presence of axial reflexes, anamnesis falls, deterioration of sight, cognitive functions disorder, age over 80 (JCI, 2007). Combination of more inner factors increases the risk of fall.

**Specific geriatric syndromes**
The somatic disorders include walking disorder, movement disorder – immobility, dizziness, instability, falls and injuries, incontinence, thermoregulation disorders, eating disorders and bed sores. The psychical disorders are dementia, depression, delirium, behavioural disorders and adaptation disorders. The social disorders include loss of self-sustainability, dependence, isolation, harassment, misuse, family dysfunction.

**Why should we deal with the falls of hospitalised patients?**
30% of seniors older than 65 years fall once a year. 25% of all injuries are traumatic injuries of persons older than 65 years. It represents 33% of overall expenses in trauma care.
The most common consequences of ageing are involution, regression, reduction of structures and functions, reduction of functional reserves of body organs and reduction of compensating mechanisms. The adaptability to the changes in both inner and outer environment deteriorates. Seniors have the reduced immunity and increased sensitivity to illnesses. Falls of seniors inflicted by outer causes represents 25-30% of all falls, mainly in home environment. Higher ratio of falls of elderly people cause also inappropriate activity, such as working in heights (housecleaning, fruits picking), protracted staying in the public transport, walking on icy surfaces, inappropriate activities in the state of confusion or depression (CAS, 2008).

The aim of the present study was (1) to determine the number of fall sin health care facilities in the Czech Republic and (2) to analyze the severity of injuries inpatients over 65 years.

Material and Methods
Health care facilities which are monitoring the hospitalised patients falls have the recommended standing procedures available. The results are reported by the responsible personnel quarterly by 15th of following month. Processed results are sent back to the coordinator of project CAS by the last day of following month. Evaluation of the patient hazards are calculated according to Conley method as revised by Juraskova (2006) and is presented on the Table 1. Monitored value is rated as the health care quality indicator – number of falls per 1000 health care days. Patients are divided into two age groups: younger than 65 and 65 or older. Indicator is also related to the groups of specialisations as was determined in the study in years 2002 -2003: internal, surgical, paediatric and subsequent care beds. Injuries are not described in detail but they are sorted to major and minor. Minor injuries are considered surface scratches, haematomas and unspecified pain of limbs or other body parts. Major injuries are considered unconsciousness, commotion and contusions of brain (inflicted directly by fall), fractures, open wounds demanding stitching.
<table>
<thead>
<tr>
<th>Fall risk factors</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anamnesis</td>
<td></td>
</tr>
<tr>
<td>DDD (disorientation, dementia, depression)</td>
<td>3</td>
</tr>
<tr>
<td>age 65 years and older</td>
<td>2</td>
</tr>
<tr>
<td>fall in anamnesis</td>
<td>1</td>
</tr>
<tr>
<td>first 24 hours after the transfer to ward</td>
<td>1</td>
</tr>
<tr>
<td>eyesight/hearing problem</td>
<td>1</td>
</tr>
<tr>
<td>medication (diuretics, narcotics, sedatives, psychotropic drugs, hypnotics, tranquilisers, antidepressants, antihypertensive, laxatives)</td>
<td>1</td>
</tr>
<tr>
<td>Examinations</td>
<td></td>
</tr>
<tr>
<td>Self-sufficiency</td>
<td></td>
</tr>
<tr>
<td>complete</td>
<td>0</td>
</tr>
<tr>
<td>partial</td>
<td>2</td>
</tr>
<tr>
<td>Non self-sufficiency</td>
<td>3</td>
</tr>
<tr>
<td>cooperative</td>
<td>0</td>
</tr>
<tr>
<td>Partially cooperative</td>
<td>1</td>
</tr>
<tr>
<td>uncooperative</td>
<td>2</td>
</tr>
<tr>
<td>Direct question to patient (information from relatives or from health care personnel)</td>
<td></td>
</tr>
<tr>
<td>Do you sometimes feel dizzy?</td>
<td>3</td>
</tr>
<tr>
<td>Do you have urge to urinate at night?</td>
<td>1</td>
</tr>
<tr>
<td>Are you waking up at night? Do you have problem to fall asleep</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>0 - 4 points*  No risk</td>
<td></td>
</tr>
<tr>
<td>5 - 13 points* Medium risk</td>
<td></td>
</tr>
<tr>
<td>14 - 19 points* High risk</td>
<td></td>
</tr>
</tbody>
</table>

*mark the answer
Score 4 points and higher: Follow the Recommended precautions
RESULTS

The obtained results we demonstrate on the Table 2. As presented in the Table the number of participating health care facilities in the year of 2004 was 17. Following the period of years 2004-2010 the number of participants was increased and in the year of 2010 the number of participating health care facilities have obtained 38 as presented. We are also presenting that quality indicator – number of falls causing injury per 1000 nursing days is from the year 2004 slightly increasing and represents 0,4 to 0,56 in the year 2010.

Table 2 The number of falls, different sorts of injuries and quality indicator as compared to number of participating health care facilities in the period of years 2004-2010.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of participating health care facilities</th>
<th>Number of health care days</th>
<th>Number of falls</th>
<th>Minor injuries</th>
<th>Major injuries</th>
<th>Number of falls causing injury (%)</th>
<th>Number of falls of patients 65 years and older in (%)</th>
<th>Quality indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>17</td>
<td>5908335</td>
<td>5479</td>
<td>2349</td>
<td>526</td>
<td>46.7</td>
<td>31.3</td>
<td>0.4</td>
</tr>
<tr>
<td>2005</td>
<td>18</td>
<td>5522339</td>
<td>6650</td>
<td>2098</td>
<td>549</td>
<td>41.3</td>
<td>32.4</td>
<td>0.44</td>
</tr>
<tr>
<td>2006</td>
<td>20</td>
<td>5789916</td>
<td>7499</td>
<td>2534</td>
<td>621</td>
<td>44.4</td>
<td>35.5</td>
<td>0.52</td>
</tr>
<tr>
<td>2007</td>
<td>22</td>
<td>5760321</td>
<td>7521</td>
<td>2448</td>
<td>596</td>
<td>43.8</td>
<td>35.5</td>
<td>0.54</td>
</tr>
<tr>
<td>2008</td>
<td>27</td>
<td>5738140</td>
<td>7933</td>
<td>2631</td>
<td>614</td>
<td>42.9</td>
<td>38.7</td>
<td>0.56</td>
</tr>
<tr>
<td>2009</td>
<td>33</td>
<td>6280862</td>
<td>8522</td>
<td>2772</td>
<td>700</td>
<td>40.7</td>
<td>32.4</td>
<td>0.55</td>
</tr>
<tr>
<td>2010</td>
<td>38</td>
<td>6886192</td>
<td>9814</td>
<td>3101</td>
<td>760</td>
<td>39.3</td>
<td>33</td>
<td>0.56</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>41886105</td>
<td>53418</td>
<td>17933</td>
<td>4366</td>
<td>42.7</td>
<td>34.11</td>
<td>0.51</td>
</tr>
</tbody>
</table>
DISCUSSION

Prevention of falls is in the nursing practice very serious issue because injuries of such kind have usually the long term consequences and they are accompanied by the reduced mobility of patients.

**Prevention of the inner risk factors**

Avoid prescription of sedatives and drugs with impact at CNS. Assisted walking exercise (under supervision). Evaluation of security issues in hospital wards. Feet diseases – calluses, corns, blisters, deformations, removal of calluses and corns, pedicure, appropriate footwear (inner soles). Balance training (staying, walking), training of the joint mobility, muscle strengthening exercises, appropriate locomotive tools, appropriate footwear, evaluation of the security factors in ward. Setting of the proper drug dose, rehydration, suitable changes of situational factors (nutrition or position changes), optimization of the drinking regime, exercise of lower limbs, compressive socks, sitting on bed. Try to reduce the number of indicated drugs, evaluation of the benefits and side effects of every medicament, selection of drugs which has the lowest effect at the CNS (not related to postural hypotension and with the short time effect), prescribing of medicaments with the minimal side effect (CAS, 2008).

The risk factors include – use of drugs - sedatives, antipsychotics, antihypertensives, diuretics (Stančiak, Kontíná, 2009). To them belong using of compensative locomotion tools and footwear – walkers, clutches, sticks and prostheses. The technical precautions include lighting, uneven surfaces, inappropriate location of the aids of daily use, insecure staircases, unsuitable bathrooms (CAS, 2008).

**Prevention of the outer risk factors**

Providing of the proper lighting, removing of the sources of shades and glare, easily accessible light switches beside doors, nightlight in hospital room, in corridors and in bathroom (Kopáčikova, Stančiak, Novotný, 2009). Use of the anti-slippery rugs and carpets, sides of carpets nailed to floor, short hair carpets, non-slippery wax on floor, removal of cables from the walking path, removal of the small items from floor (shoes, clothes), spilled or loose dirt must be quickly cleaned. Staircases must be sufficiently illuminated, light switches must be both on the top and on the bottom, securely fixed rails on both sides of staircase, first and last stair marked with reflective strip, stairs should not be too steep and should be in good condition, there should not be any items left on the stairs. Items in the
kitchen should be stored to avoid bending or stretching, safe and solid chair, solid and unmovable table. In bathroom should be handles and rails by bathtubs, showers and toilets, anti slippery stickers or rugs in bathtub and shower, collapsible seat in shower and handheld shower, removing of the door lock for the easy access in the case of fall. Bed should be properly positioned (not too high nor too low), use of proper tools and wheelchairs, ergonomically positioned bedside table (in reach). Footwear with solid and anti-slippery and no-tripping sole, low heels, avoiding of the walking only in socks or loose slippers (CAS, 2008)

Recommendations for practice

Currently, tracking falls becomes an integral part of the process to improve quality and ensure safe care for hospitalized patients. Collection of data on the basis of the recommended methodology and the monitoring results are compared with other medical facilities in the CR (benchmarking), which is involved in monitoring.

To prevent falls the nursing personnel should mainly follow the following precautions:

− Barrier free environment, removal of obstacles that must be stepped over (furniture, cables, unsuitable staircase), sharp edges free furniture, chairs and armchairs with stable base, over bed tables;
− Sufficient illumination (local lights, night light);
− Adjustable height of bed, side constrains on the bed (divided, compact), automatic bed brake, holders, bed frame with restrictor holders, suitable place for personal belongings, call bell within reach of patient;
− Anti-slip rugs in bedroom, supporting aids – holders, rails, walking frames, canes;
− Careful rising (especially after night rest);
− Care for the mobility apparatus: rehabilitation care and rehabilitation nursing;
− Identification of patients with higher risk of fall as fast as possible, security precautions and increased attention of staff;
− Enough time for the proper adaptation to the changed environment (ward walk through, mess halls, examining rooms and other areas);
− Educate patient about the risks of fall – for example about the combination of drugs (analgesics, anaesthetics, opiates, diuretics, antiepileptics, antihypertensics, antiparkinsonics, psychotropic drugs and benzodiazepins) or risks connected with sense disorders and cognitive deficits;
Revision of precautions in case of fall.

**Recommended precautions**

1. Mark identification wristband with the circle sticker indicating risk of fall.
2. Systematically check patients with the risk of fall.
3. Put within the reach from bed urinals, bed pans and commode chairs.
4. Place the night table and patient’s supporting tools within the reach from bed.
5. Place signalisation within the reach of patient and explain how it works.
6. Lower the bed, apply brakes and lift the bed restrains.
7. Remove obstacles from the walking path.
8. Place patient nearby the nurses’ room and toilets.
9. Actively offer the assistance.
10. Provide the appropriate footwear.
11. Provide the suitable night light.

**Conclusion**

Prevention of falls is a very serious topic in nursing practice because fall inflicted injuries usually have long term consequences and often cause reduced or lost mobility. In exceptional cases fall can cause death, especially in the case of elderly patients. Falls are the most common cause of injury to seniors. Physiological changes in old age are causing reduced adaptability to the inner and outer environment, increase the risk of falls, especially falls from the elevated surfaces, walking on the slippery surface or inadequate activities in the state of confusion or depression (Hrozenska, et al., 2008). The occurrence of falls is influenced also by the inadequate condition of equipment in health care facilities, insufficient number of health care personnel and inappropriate education of health care personnel in the area of the prevention of falls. Falls of seniors have a serious prognosis. The mortality of seniors is six times higher than the other patients and is doubled every decade after 65 years.

**References**


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Alcohol and other addictive substances intoxications in children in pre-hospital care

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Abstract

Objective: We followed a reciprocal dependence of addictive substances intoxications on age, sex, kind of addictive substance, consciousness status, injuries and time (dependence on holiday). We verified 3 hypotheses: we supposed a rising trend in using addictive substances since 2007 to 2010, we supposed the same or similar number of men and women in using addictive substances and finally a higher occurrence in using addictive substances during holiday, weekend and during last day before holiday starts. Subjects and Methods: It was used a retrospective analyses of the Records of evaluating the health status since 1st January 2007 to 31st December 2010 from Trnava region. Objected group was created by children and persons till ending 18th year. Results: We can note generally, that number of intoxications by addictive substances in persons till 18th year of life including rises every year and also rises the number of injuries of intoxicated persons. At the first place as a cause stays alcohol. The most risk season in this file is age from 16 to 18 years of life. More girls are in the group of persons of the lower age. The most often destination of ambulance crew encroachments was at home or at the street. Children and young adults prefer using addictive substances during the last day of tuition before holiday or during holiday.

Conclusion: Alcohol and also other addictive substances can affect unfavorably to health status, psyche and social behavior. Because the number of intoxications by these substances is still rising, community, but especially the parents should often observe their children and lead them right direction.
**Key words:** alcohol - intoxication in children - addictive substances intoxication in pre-hospital care review in years since 2007 to 2010

**Introduction**

Using addictive substances, predominantly alcohol by young people has not neglected health and social consequence. Alcohol belongs to the substances, which are made and distributed legally, so alcohol intoxications are ranking the first place. Despite of alcohol sale and its using by persons younger than 18 years is forbidden, procure it is not difficult. Drinking alcohol at this age belongs to the most often causes of the addictive substances intoxication.

Alcohol can affect health and psychical status and social behaviour. It can affect not only to one person but also to whole social surroundings (for example level and ethics of behaviour, keeping of moral standards, social and professional status, traffic accidents, criminal offences).

Alcohol intoxications are the most often intoxication in Slovakia among children aged from 12 to 16 years old. Sniffing of volatile substances (toluene and other) begins compete to alcohol intoxications in the eastern part of Slovakia, especially in certain groups of young people [http://www.infodrogy.sk/; http://www.ntic.sk/].

According to the study of European forum for responsible alcohol drinking, as the first in European Union children begin drinking alcohol in Czech Republic and their first glass of alcohol they drink at 11 years. In Slovakia is a similar situation. Alcohol intoxications in children and young people oft with serious course can threaten life of intoxicated person. At this age were registered also the intoxications with fatal ending. More than 95 % of all injuries in teenagers are linked to using of alcohol or other psychoactive substances. Alcohol intoxication means still threaten life, especially in combination with other substances (medicaments, drugs and other). Right and timely treatment determines about destiny of intoxicated person [Kresánek at al. 2009].

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It was found out, that children used sometime alcohol and other addictive substances or their combination in suicidal attempt.

It is observed the second peak in intoxication with absolute predominance suicidal intoxication (especially girls) in children aged over 10 years as a result of bad processing conflict situations. It is used more substances, at the first place medicaments: benzodiazepines, analgetics, antipyretics, antihistamines and other. Intoxication are more often combined with alcohol [Šašinka at al. 1998].

Because of the rising trend in using addictive substances by children and young adults, a daily work review of ambulance crew from Trnava region was processed for the period of last 4 years. It was aimed to follow individual cases of using addictive substances, to summarize information and to compare collecting data for every year.

**Objective**

We followed a reciprocal dependence of addictive substances intoxications on age, sex, kind of addictive substance (if it was possible to find out in the pre-hospital care), consciousness status, injuries and time (dependence on holiday).

We verified 3 hypotheses: before making this analysis we supposed a rising trend in using addictive substances since 2007 to 2010, we supposed the same or similar number of males and females in using addictive substances and finally a higher occurrence in using addictive substances during holiday, weekend and during last day before holiday starts.

**Definitions**

**Addictive substances** are defined according to §130 Section 5 of the Criminal Code, Collection of Laws No. 300/2005 as: “alcohol, narcotic drugs, psychotrophic substances and other substances which are able to affect adversely the mental state or ability to control and identify or social behavior”.

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Narcotic drugs are defined according to §2 Section 1 of the Law on Narcotics, Psychotropic Substances and Preparations, Collection of Laws No. 139/1998 as: “substances evocating habit and psychological and physical dependence, which is characterized by behavioral changes with serious and psychosocial outcome”.

Psychotropic substances are defined according to §2 Section 2 of the Law on Narcotics, Psychotropic Substances and Preparations, Collection of Laws No. 139/1998 as: “substances influencing the status of human psyche by acting to Central Nervous System with less serious health and psychosocial outcome”.

According the Article 1 Convention on the Rights of the child, accepted by United Nations General Assembly on 20th November 1989, child is every human being younger than 18 years if according the law, the age of majority is not reached earlier. Reach of the age of majority according the law in Slovak Republic explains the Civil Code (Law No. 40/1964 Collection of Laws as amended). According to § 8 Section 2 of the Civil Code: “Age of majority is taken by reach the 18th year of life. Before reaching this age, age of majority is taken only by getting married. Taking age of majority this way is not canceled by ending marriage or decelerating marriage as invalid” [Collection of Laws of Slovak Republic; Records of evaluating the health status].

Materials and methods

It was used a retrospective analyses of the Records of evaluating the health status since 1st January 2007 to 31st December 2010. These records were elaborated by ambulance crew RLP in residence in the hospital in Trnava and ambulance crew RZP in residence in Dolne Oresany, close to Trnava. The Record evaluating the health status was elaborated always, when a patient was examined or cured. Only primary encroachments were included in statistics. Interclinical transports, transports for examinations or medical performance (change of tracheostomy cannula) or encroachments which were canceled or it was abuse of emergency service and patient wasn’t found at destination. Objected group was created by children and persons till ending 18th year, so it means persons since their birth till ending 18th year of their life. From study was excluded one person after accidental and unconscious use of
addictive substance – 1 year old child. The following information were aimed at addictive substances intoxications, using these substances at different age (persons were divided into 5 groups according age in the scale of 2 years), following dependence on sex, injuries, consciousness status rating according GCS (Glasgow Coma Scale), place of ambulance crew encroachment and dependence on holiday.

Results

16 938 encroachments of two ambulance crew in Trnava region were realized on purpose to treat or transport children and adults since 1st January 2007 to 31st December 2010. In this number are not included encroachments which were canceled by the Region Operating Centre or it was abuse of emergency service and a patient was not found at the destination.

In the time, when the research was being organized, 824 Records of evaluating the health status were processed from primary encroachments to patients aged till 18th year, including them (Table 1). This number means 4.86 % from all encroachments excluding canceled or abused encroachments.

In 84 (10.19 %) encroachments were written in the Record of evaluating the health status as a diagnosis use of addictive substances or a history information about use of addictive substances. From this group was excluded one 1-year old child after accidental and unconscious use of addictive substance. Final number of file was created by 83 persons. The encroachments of ambulance crew to persons after use of addictive substances are the fourth most numerous group (after injuries 31.67 %, convulsions 16.26 % and after respiratory diseases and fevers 13.96 %) (Graph 1).

From 83 patients 66 persons used alcohol (79.52 %). There was 45 (68.18 %) children after drinking alcohol, so it means they were younger than 18 years old.

The most numerous group was created by 16 and 17 years old boys (14) and girls (13), so it means 32.53 % of all following intoxications. They were followed by 18 years old young men (13) and women (12), it means 30.12 % of all intoxications. The youngest child used alcohol was a girl from age group from 10 to 12 years old.
According the sex, there was mild prevalence of women 44 (53.01 %) against men 39 (46.99 %). In the group of women was recorded higher prevalence of using alcohol by younger persons (in lower age) than in the group of men.

16 persons (19.28 %) were hurt after using addictive substance, the occurrence of injuries rose significantly in the year 2009 (9 persons were hurt) and in 2010 (5 persons were hurt) compared with the year 2007 (1 person) and year 2008 (1 person).

The consciousness status was evaluated according the Glasgow Coma Scale from 3 to 15 points. Nearly two thirds of persons – 49 (59.04 %) had 14 or 15 points. It means, they were conscious totally, orientated or disorientated, with spontaneous targeted motor skills. 14 persons (16.87 %) reached less than 10 points. These persons were found with failure in their consciousness, it was usually in the level of somnolence or sopor. So it means, that these persons reacted oft only to a painful initiative, they didn’t respond to salutation. 3 persons were found with failure in their consciousness in the level of 3 points of GCS.

Dependence on timing was divided in days during week – from Monday to Thursday, Friday and weekends were followed particularly. It was found out that from Friday to Sunday ambulance crew had 51 encroachments (61.45 %). Dependence on holiday was followed since 1st January 2008 to 31st December 2010, so this dependence was followed one year later. It was found out according collecting information, that during holiday, weekends and on last day of tutorial before holiday or weekend ambulance crew had 54 encroachments (81.82 %) to persons intoxicated by addictive substances.

The most frequent target of encroachment was at home – 32 cases (38.55 %), when the intoxication was observed by parents. 23 encroachments (27.71 %) were localized at the street, 9 encroachments (10.84 %) were localized in the cottage area, 8 encroachments were on disco/pub and localization of the rest encroachments was other or unknown.

The other intoxications include persons after using another kind of addictive substances than alcohol or in combination with alcohol. There were 17 (20.48 %) persons like that from total number 83 cases of addictive substances intoxication. There were many intoxications in suicidal intention, part of them demonstrative significantly (when just the intoxicated person asked somebody to call emergency service). They were usually intoxicated with available
analgetics (Paracetamol, Veral), antipsychotics, anxiolytics, hypnotics, antihistamines or with drugs like marihuana, pervitin, heroin or other. Medications where prescription is needed, were prescribed to the intoxicated person or to other member of his family.

**Discussion and Summary**

The file was created by 83 persons after retrospective analysis of the Records of evaluating the health status during 4 years. Because of not very numerous file it’s not possible to pronounce significant conclusion. In spite of that, we can note generally, that number of intoxications by addictive substances in persons till 18th year of life including, rises every year and also rises the number of injuries of intoxicated persons. At the first place as a cause stays alcohol. The most risk season in this file is age from 16 to 18 years of life. Substitution of men and women is nearly the same in this age. More girls are in the group of persons of lower age. The most often destination of ambulance crew encroachments was at home or at the street. Children and young adults prefer using addictive substances during the last day of tuition before holiday or during holiday.

Appreciation of hypotheses:

**The first hypothesis:** We recorded mild ascent in intoxication with addictive substances since 2007 to 2010 with culmination in 2009. The first hypothesis was confirmed.

**The second hypothesis:** In the file was mild predominance of women, who used addictive substances more often in lower age than men. The second hypothesis wasn’t confirmed.

**The third hypothesis:** The ambulance crew realized more than three quarters of encroachments to intoxicated persons during holiday, weekends and the last day of tutorial before holiday. The third hypothesis was confirmed.

The higher number of alcohol intoxication in the group of girls of lower age, but also generally in the group of women, can be explain with different metabolism of alcohol. The speed of alcohol metabolism in human body is ranged from 0.085 g (women) to 0.1 g (men) of alcohol per 1 kg of body weight per 1 hour [Kresánek at al. 2009].

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We found out that the number of encroachments to persons after using alcohol was significantly higher than it was supposed at the beginning. We found by any chance another 5 persons, whose blood was examined to determine the alcohol level after admitting to the hospital. It wasn’t written any information about using alcohol in the Record of evaluating the health status, so we can suppose, that they had no symptoms of using alcohol or it was not possible to find out. When alcohol was used, it was usually in connection with injury or unspecified health problems. Actually this number will be higher, because checking persons in hospital informatics system wasn’t done with aim to detect other persons, but it was found randomly. Also not every patient admitted to the hospital is examined to determine the alcohol level in his blood. And at the end, all these data were obtained after 12\textsuperscript{th} December 2008 (hospital informatics system has processed data since this day). Patients transported to other hospital (for example hospital specialized for children in Bratislava) are not included in this system.

Alcohol and also other addictive substances can affect unfavorably to health status, psyche and social behavior. Because the number of intoxications by these substances is still rising, community, but especially parents should often observe their children and lead them right direction.

\textbf{Table 1.} The encroachments of ambulance crew RLP and RZP according to cause

<table>
<thead>
<tr>
<th>Addictive substances intoxications</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2007-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury</td>
<td>65</td>
<td>68</td>
<td>58</td>
<td>70</td>
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<tr>
<td>Respiratory system diseases – asthma,</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>infection, fever ...</td>
<td>22</td>
<td>27</td>
<td>37</td>
<td>29</td>
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<tr>
<td>Cardiovascular system diseases –</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>hypertension, arrhythmias ...</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Collapse, unconsciousness</td>
<td>2</td>
<td>14</td>
<td>11</td>
<td>12</td>
<td>39</td>
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<tr>
<td>Convulsions – febrile paediatric, epilepsy</td>
<td>38</td>
<td>33</td>
<td>37</td>
<td>26</td>
<td>134</td>
</tr>
<tr>
<td>Gastrointestinal tract diseases - dyspepsia,</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>abdominal pain ...</td>
<td>12</td>
<td>16</td>
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<td>15</td>
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<tr>
<td>Psychical diseases</td>
<td>4</td>
<td>23</td>
<td>17</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>Allergic reaction</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>20</td>
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<tr>
<td>Urinary and genital tract diseases –</td>
<td></td>
<td></td>
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<tr>
<td>delivery ...</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Other – headache, back pain, anorexia,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>heat stroke ...</td>
<td>7</td>
<td>5</td>
<td>13</td>
<td>14</td>
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<tr>
<td>Death</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
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</tr>
<tr>
<td><strong>Summary</strong></td>
<td>177</td>
<td>214</td>
<td>226</td>
<td>207</td>
<td>824</td>
</tr>
</tbody>
</table>

**Graph 1.** The encroachments according to cause in 2007-2010
Graph 2. Alcohol and other addictive substances intoxication in 2007 to 2010

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Records of evaluating the health status

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PATIENT’S USE OF INTERNET FOR HEALTH-RELATED INFORMATION

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2 Clinic of Plastic, Reconstructive and Aesthetic Surgery, University Hospital of Louis Pasteur in Košice

Abstract

Introduction: Along with nearly every facet of contemporary life, access to health information has been revolutionized by advances in the Internet. The Internet can be a powerful avenue by which patients with chronic health conditions can obtain information about their illness, lifestyle and treatment options.

Aims: The thesis set as its aim to find out how much (frequency, preferences) people use Internet as a health-related information source and how those information influence their behaviour as well. The differences between the patient groups and the use of Internet were also identified. At the same time we focused our attention on the content and ethical aspects of frequently used health related web sites.

Methods: We used questionnaire of our own design, which was distributed to adult patients of the Clinic of Plastic, Reconstructive and Aesthetic Surgery. In our study 177 were participated. Frequency and preference of searching Internet for health information were evaluated by descriptive statistics.

Results: In the questionnaire evaluation we found out that internet as a source of health-related information was preferred by 12.99 per.cent of respondents. Internet was used for seeking health–related information by 58.76 per cent of 177 respondents and the content of information was mostly disease/illness related. That information, which was gathered via Internet, affected their decision making process in cases of 68.27 per cent of respondents.

Discussion: Differences based on age and socioeconomic status are consistent with general findings. Use of Internet as a health-related source is original in Slovakia. Respondents are most often looking for information about disease that occurs in case when the disease has
already been diagnosed. Also we are similarly identified some issues, that are well discussed in abroad about methods of searching and about the qualification, currency of information and others attributes, which could guarantee credibility of the information source.

**Conclusion:** In patient education nurse has always played significant role and that status does not change even though with the onset of modern technology. It is needed to reflex above mentioned aspects on professional level by counsellin nurse.

**Key words:** Internet, patient, source of health-related material,

**Background**

Along with nearly every facet of contemporary life, access to health information has been and continues to be revolutionized by advances in communication technology, particularly via the Internet. The use of the Internet in healthcare practice offers many opportunities. Patients can use the Internet to obtain medical information and also to share information with other patients, patient organizations and healthcare providers. Access to information can empower patients to make better-informed decisions about health-related issues and participate more actively in healthcare (Ford, 2000; Berland et al., 2001). Use of the Internet is widespread with people having access to vast sources of information directly to their homes or workplace. It was estimated in September 2002 that approximately 57 per. cent of the population (34.3 million people) in the UK were using the Internet on regular basis. (Tassone et al., 2004) Medical information is no exception. A survey carried out by an independent research company, Datamonitor, of approximately 4500 people across France, Germany, Italy, Spain, the UK and USA; found that 57 per cent of people who looked for health information in the past year had consulted Internet sources. (Datamonitor, 2002)

Generally, a survey carried out by Slovak tecomunication company in 2004 on representative sample identified 1 375 143 users of Internet services in Slovakia. It represents 25.58 per cent of Slovak population. These findings show that the number of Interent users increases from year to year and in these times at least one third of Slovaks use the Internet at least once in a month for different purposes. The most common reason for using the Internet was checking on e-mails, looking for some information on web-sites, to gain electronic forms and Internet banking. Internet have been used 34.7 per cent of males and 26.6 per cent females. The age group, which is the most interseted in a case of 69 per cent and uses the Internet the most frequently is between 15-19 years of age. (Telekomunikačný úrad SR, 2003)However, several studies report the existance of digital divide both in Internet access (Renahy et al., 2006, p.
70) and Internet use (Hargittay, 2004, p. 139) such is the context in which a large number of
general health related web-sites, discussion grups, on-line counseling have been created.
There is also divide among regions, the most active users in western part of Slovakia,
particularly in Trenčín region (36.6%) and capital city area (34.1 per cent) at least 19 per cent
in Nitra region. (Telekomunikačný úrad SR, 2003)
The Internet can contribute to the development of health promotion, disease prevention and
the treatment of medical problems (Eysenbach and Diepgen, 1999). However, use of the
Internet in healthcare practice has some potential disadvantages, notably as the accessibility,
quality and readability of health-related information on the Internet are often deficient
(Berland et al., 2001; Suarez-Almazor et al., 2001; Okamura et al., 2002). Consequently,
patients can base their medical decisions on incorrect, unreliable or misleading health-related
information, which successively lead to the damage of their physical health and emotional well-
being. Any information source needs to be evaluated in terms of availability (access) and
quality (content).
Many studies have been carried out to describe the characteristics of people who use the
Internet to obtain health information. Most of them indicate age, level of education, income
and ethnicity as discriminating factors. Other studies have also suggested an association with
long-term illness (Millard, Fintak, 2002; Dickerson et al, 2004) or stigmatized illness (Berger
et al., 2005). In the last decades, previous studies assessing Internet usage for health related
information amongst patient groups brings some worthwhile findings even though on small and
non-random samples. Some of them are briefly described in Table 1.
Empirical studies are starting to take into consideration more broadly the cognitive barriers to
the general public's use of the Internet for health information seeking, including the different
skills required to read, use new technologies, search for information, and understand health
information (e-health literacy). The Internet can contribute to the development of health
promotion, disease prevention and the treatment of medical problems (Eysenbach and
Diepgen, 1999).
Table 1 Evidence of the Internet use for health-related information

<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Country/Setting</th>
<th>Sample size</th>
<th>Results (brief summary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vordermark</td>
<td>2000</td>
<td>Germany radiotherapy clinic</td>
<td>139 patients</td>
<td>- of all respondents only 11.5% had used the Internet to research their problem, in terms of importance for delivery mediacaal-realted information Internet was ranked as the lowest.</td>
</tr>
<tr>
<td>Ross et al.</td>
<td>2000</td>
<td>UK genito-urinary clinic</td>
<td>1204 patients</td>
<td>- 41% respondents have an Internet access with only 4.1% of patients having researched their own problem.</td>
</tr>
<tr>
<td>Gupte et al.</td>
<td>2002</td>
<td>UK selected orthopaedic out-patient population</td>
<td>398 patients, aged 10-95 years</td>
<td>- 55.3 % of patients had accessed the Internet. Of these, 52.0 % had obtained medical information from this source. Access was linearly correlated with age and was also related to social status.</td>
</tr>
<tr>
<td>Provost et al.</td>
<td>2003</td>
<td>the United States (38 %, n = 984) and Europe (29 %, n = 739)</td>
<td>2621 respondents in USA 68.7 % patients in Europe, 63.6 % health care professionals</td>
<td>In both regions, health professionals preferred using medical search tools, patients preferred general search tools. Concerns about the accuracy and trustworthiness of information were shared by all groups. The majority of respondents preferred certified web sites.</td>
</tr>
<tr>
<td>Kalichman et al.</td>
<td>2003</td>
<td>USA</td>
<td>147 HIV-positive persons</td>
<td>- Internet use was associated with HIV disease knowledge, active coping, information-seeking coping, and social support among persons who were using the Internet, association between using the Internet for health-related information and benefits.</td>
</tr>
<tr>
<td>Norman, Skinner</td>
<td>2006</td>
<td>Canada (part of eHealth smoking prevention and behavior change controlled trial)</td>
<td>664 adolescents</td>
<td>- within a clinical environment, the eHEALS has the potential to serve as a means of identifying those who may or may not benefit from referrals to an eHealth intervention or resource.</td>
</tr>
<tr>
<td>McMullan</td>
<td>2006</td>
<td>UK, a literature review summarizing multiple empirical studies considering use of the Internet for health information by the patient and how this could affect the patient-health professional relationship</td>
<td>664 adolescents</td>
<td>- the majority of health related Internet searches were for specific medical conditions (manage their own healthcare, needs professional help; reassurance/getting detailed information.) Health professionals should acknowledge patients’ search for knowledge, discuss the information and guide patients to reliable and accurate health websites.</td>
</tr>
<tr>
<td>Ayantunde et al.</td>
<td>2007</td>
<td>UK outpatient clinics at City Hospital</td>
<td>663 respondents</td>
<td>- 63 % of patients had access to the Internet, 42 % had used the Internet to access health information, 95 % of the respondents who had used the Internet for health information rated such information between average to excellent. 82% of those with Internet access would be interested in using trustworthy health info on the Internet.</td>
</tr>
</tbody>
</table>

However, use of the Internet in healthcare practice has some potential disadvantages, notably as the accessibility, quality and readability of health-related information on the Internet are often deficient. (Berland et al., 2001; Suarez-Almazor et al., 2001; Okamura et al., 2002) Consequently, patients can base their medical decisions on incorrect, unreliable or misleading...
health-related information, which successively lead to the damage of their physical health and emotional well-being. Notable amount of patient, who represent lay public and not only health care professionals concern about the accuracy of information and trustworthiness on the Internet and related services. In Provost et al. (2003) study the majority of respondents reported that they mostly preferred certified, recomended web sites. Any information source needs to be evaluated in terms not only availability (access) but mostly quality (content) as many researchers refered (Kim, 1999, p. 646) Some studies also debate the actual benefits of the Internet in general and online discussion groups in terms of the social support. (Eysenbach et al., 2006, p. 2961; Kalichman et al., 2003, p. 115) Most of above mentioned studies have involved patient with specific health conditions or small and non-random samples. Even though many of them are descriptive and rely on explanatory dimension they bring valuable results and none of them have been conducted in Slovakia.

It seemed important to analyze in Slovak context of (universal health insurance, lack of previous studies) the factors associated with Internet access and the use of the Internet to search for health information, both potentially involving common skills and determinants. That is the reason why we created this study - to explore further ways in which patients undergoing therapy on Clinic of Plastic and Reconstructive surgery in Slovakia (cosmetic, reconstructive - cleft lip, cleft palate and therapeutic - nevus, malignat melanoma surgery) use the Internet for obtaining medical information. We were also aimed to find out preferences, frequency of use and types of behaviours regarding the use of Internet for health purposes.

**Methods**

During a 8-week period, questionnaires were circulated among in-patients of Plastic, Reconstructive and Aesthetic Surgery UNLP in Košice in order to establish basic demographic data, Internet usage and investigate those areas of information that would be of interest. Patients were provided with a questionnaire of our own design (14 items, deliberated choice), which supposed be completed during hospital stay. The questionnaire used was adapted from one used in previous studies suplemented with some items related to our specific research purposes. Questions asked included: patient demographics, internet access, where access was available, names of specific sites or search engines used quality and helpfulness of information/impact on decision making process. Questionnaires were handed out over a convenience sample. It was emphasised that completed questionnaires would remain anonymous and that access or otherwise to the Internet would have no bearing upon
Frequency and preference of searching Internet for health information were evaluated by descriptive statistics (frequency analysis, variance analysis). Chi square tests were used for proportion comparisons, as required. Results were analysed with STATISTICA® 5.0 statistical software.

**Results**

Over the study period, 177 replies were received from 250 patients; 92 males (52 per cent) and 85 females (48 per cent). The age of respondents conformed to a normal distribution, centred on the 35-54 (36.2 per cent) year-old age group. Of all respondents, 120 (67.8 per cent) used the Internet for general purposes. A hundred and four (68 per cent of all respondents and 86.7 per cent of those with Internet access) had searched for information regarding health/clinical problem. The participation rate in the survey was 70.8 per cent (177/250). The sample was consisted of men (48 per cent) and women (51.9 per cent). With regard to socioeconomic status (SES) measured by month income per person, 11.31 per cent were below 600 €, 65.53 per cent were between 601 – 1000 € and 23.16 per cent has income above 1001 €. The median age was centred in the interval 35-44 years. A total of 177 questionnaires were completed, with roughly equal proportions (1,3:1) of men and women.

**Internet access**

Close to 68 per cent (n=120) of the respondents had previously personally gone online, have an Internet access at home or in work. We did not consider for this analysis the covariates that pertain to the following dimension: health-care utilisation, health perceptions and Internet use. Although men seemed to have greater access to the Internet than women, the difference was not significant. The Internet access decreased significantly with increasing age and increased with the level of education and income.

**Use of the Internet to search for health information**

The most common source of health information mentioned by the survey's respondents was their physician (70 per cent consulted a general physician/practitioner or specialist), while 13 per cent of the total of the total or 22.1 per cent of Internet users for health-related information prefered Internet the most. Retrieved data indicated that they had searched for medical information online during the last month or more frequently in 59 per cent. We still observed significant associations with age, level of income, level of education, and integration (Table
2). Actually, the level of education is globally significant in our study (even though none of the education levels were found to be significant).

### Table 2: Associations of Internet use for seeking health-related information

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Age/years</th>
<th>Gender</th>
<th>Level of education</th>
<th>SES</th>
</tr>
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<tr>
<td></td>
<td>18 – 34</td>
<td></td>
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<td></td>
<td>35 – 44</td>
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<td>45 – 54</td>
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<tr>
<td>Age/years</td>
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<td></td>
<td>55 a viac</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>men</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>women</td>
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<tr>
<td>Level of education</td>
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<tr>
<td></td>
<td>high school</td>
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<tr>
<td></td>
<td>university</td>
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<tr>
<td>SES</td>
<td>&lt; 600 €</td>
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<td></td>
<td>601 – 1000 €</td>
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<td></td>
<td>&gt; 1001 €</td>
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</tbody>
</table>

#### Discussion

The rate of potential use of Internet for health-related topics previously reported is between 60–83 per cent of respondents, almost exclusively patients. Compared to the general population, the rate of the Internet use is much higher in our conditions. In comparison to our study, it is approximately equal, but I have to put stress on time gap. The reason for this shortfall is not entirely clear but may reflect specific factors, including average age range in our sample, availability of Internet facilities and technology such as PC, Laptop possession, together with special health conditions associated with need for more detailed information about illness or stigmatized health conditions.

Moreover, many authors recognized stigmatized illnesses/health conditions as strong predictors for seeking health information in ways other than face to face consultation. Stigma can lead to discrimination, ostracism, or persecution, and may cause feelings of embarrassment or humiliation in the stigmatized individual (Gilbert, 2001). Consequently, people often conceal stigmatized health conditions, or avoid situations that may reveal these conditions. Efforts to hide stigmatized illnesses often lead to delays in seeking health care. The internet, which is widely accessible may be a useful health education and outreach tool for stigmatized illness patient group, because these people often avoid seeking health care and education in traditional methods. Berger et al. (2005, p. 1822) study examined patterns of internet use for health information among those with and without stigmatized illnesses via a national survey of internet users in USA (7014 respondents). Respondents who self-reported a stigmatized
condition defined as anxiety, depression, herpes, or urinary incontinence were compared to respondents who reported having at least one other chronic illness, such as heart problems, diabetes, and back pain. Cross-sectional associations between stigmatized illness and frequency of internet use for information about health care, use of the internet for communication about health, changes in health care utilization after internet use, and satisfaction with the internet were determined. After controlling for a number of potential confounders, those with stigmatized illnesses were significantly more likely to have used the internet for health information, to have communicated with clinicians about their condition using the internet, and to have increased utilization of health care based on information found on the internet, than those with non-stigmatized conditions. Length of time spent online, frequency of internet use, satisfaction with health information found on the internet, and discussion of internet findings with health care providers did not significantly differ between the two groups. Results from this survey suggest that the internet may be a valuable health communication and education tool for populations who are affected by stigmatized illnesses.

Also there is a significant trend of increase in rate of using Internet for general as well as for specific information. Previous studies had been conducted before 2005, while our own data are related to the beginning of 2011. It is obviously shown in the table 1, patients' use of the Internet for health related matters has dramatic increase in general way as well as in health related field. The study of Internet usage in 2000 and 2006 by Trotter and Morgan (2008, p. 179) showed that the access to the Internet rose from 43 per cent (88) in 2000 to 70 per cent (147) in 2006, a significant increase ($p < 0.001$) in Australia. The Internet was used for health related information by only 32 patients (16%) in 2000 but by 114 (55 per cent) in 2006, a dramatic and significant increase ($p < 0.001$). Clearly patients and their families are increasingly using the Internet to access and seek health information.

These analyses performed on a sample of patient confirm the main factors (age, level of income and education) discriminating Internet use for seeking answers to health questions in the Internet user population on the other (Andreassen et al., 2007, p. 53; Ybarra, Suman, 2006, p. 38). Researchers brings the same findings with the use of Internet in general population. As in other studies (Rice, 2006, p. 24), our results show that women Internet users are the most active online health seekers. In general, women can be considered the ones who usually look after health matters in their families. Although the sample do not consist of enough womens in mother or caregicer role we don’t analyse those data. But Renahy et al. (2008, p. 75)
referred significant association between health-related information seeking on the Internet and living in a couple relationship or having a sick individual in one's close circle. The gender effect appears perhaps to manifest as a different level of interest in health.

**Conclusion**

Almost fifty-nine percent of patients attending a clinic of plastic were Internet users for health-related information. The review showed that the majority of health-related Internet searches by patients are for specific medical conditions. Those who had used the Internet to access health or disease-related information were significantly younger, better educated, women and have higher income/SES. The majority of patient Internet users researched information sources considering symptoms (18.3% per cent) of disease, about treatment options treatment regime, medication (23.1% per cent), and about disease itself (51% per cent). What is necessary to emphasized, that in our study 12 per cent of Internet users for health-related information preferred the Internet among other sources like traditional books, magazines, brochures or consultations with health care professionals. Furthermore, our study outline potential influence of health conditions, particularly related to stigmatized or chronic illness, pro-active health attitude and social role (caregiver, parents, women gender). There has been a shift in the role of the patient from passive recipient to active consumer of health information. It seems that, with experience, the Internet assumes an increasingly important role in Internet users' lives in terms of how they obtain information and can even become an integral part of their daily lives. Searching on the Internet would thus become a habit, which should be recognized by health care professionals. In prevention of physical health damage or emotional distress (i.e. anxiety) is rather inform or recommended web sites which are certified, safe and contain current content. It is important that health professionals acknowledge patients’ search for knowledge, that they discuss the information offered by patients and guide them to reliable and accurate health websites. It is recommended that courses, such as ‘patient informatics’ are integrated in health professionals’ education and seeing the Internet as an opportunity to create partnership with the patients. More and randomized studies focused on impact of such information gathered via Internet on patient behaviour or decision making process or overall health care should be carried out.

**Limitations**

The most obvious criticism about our study is related to the sampling bias, what means that the sample is not representative of the entire population. Significant criticism about using a
convenience sample is the limitation in generalization and inference making about the entire population. This refers to the difference between the results from the sample and the theoretical results from the entire population. It is not rare that the results from a study that uses a convenience sample differ with the results from the entire population, but it is not possible to analyze that because of lack such studies focused to this topic in our conditions. We are aware of these limitations, therefore the results of the study cannot speak for the entire population.

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NURSES’ OPINION ON STANDARDIZED CLASSIFICATION SYSTEMS

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Abstract
The article introduces the initial results of the grant investigation: Using conceptual model and classification systems in nursing documentation; model focused on nursing documentation, the use of nursing classification systems, nursing conceptual models and also on multicultural nursing. This paper focuses only on the use of nursing documentation and nursing classification systems.

The research carried out quantitative research using questionnaires, which were focused on the knowledge of nurses in the field of classification systems and conceptual models. Next aim was to determine the extent to which nurses are satisfied with the current nursing documentation used within their department. The research sample consisted of selected nurses working in 7 hospitals of South Bohemia in the Czech Republic. The set was made up of nurses working on standard units, but also in intensive care units. The results point to the fact that nurses do not have knowledge of nursing classification systems and they would welcome an electronic form of nursing documentation. The aim of our grant investigation is to create a nursing documentation respecting the specifics of standard departments and ICU departments. This nursing documentation will also include standardized classification systems.

Key words: classification systems, nurse, documentation

Nursing documentation captures all important data and facts which are related to providing nursing care to specific patients, that means nursing history and daily records (Stankova, 1999).

The purpose of nursing documentation can be divided into four areas. The first area is about facilitating communication, through which the sisters communicate with other nurses and this leads to the achievement of nursing goals, nurses can realise interventions they meet with and via this make it possible to evaluate the outcomes of nursing interventions. Documentation of
these components ensures that the patient receives consistent and quality care. Thoroughly administrated nursing documentation reduces possible misunderstandings and mistakes. The second area is supporting the nursing care within which nurses assess progress in patient care. Furthermore, it determines which interventions are effective and which are not. This area also serves as a valuable source of data for decision-making in resource management, but it also facilitates nursing research. The fulfilment of legal norms is the last area. In fact documentation may be used as evidence in any trial and it is a valuable proof demonstrating that the nurse was treating the patient according to nursing knowledge, skills and that she made decisions on the basis of nursing standards (Stankova, 1999).

In 1997, the working groups NANDA, NIC (nursing interventions classification) and NOC (Nursing classification objectives) first met. This ushered in linking the results of the three mentioned classifications. The product which includes the standard names of nursing diagnoses properly connected to selected nursing goals and interventions was created.

**Material and methods:**

In the first phase of the research the deep analysis of nursing documentation preceded and subsequently semi-structured interviews were realised with head nurses working in South Bohemia hospitals. The questions of semistuctured interview were based on the literature and the evaluation of the results of content analysis of nursing documentation, which is used in these facilities.

Based on analysis of documents and interviews a questionnaire for nurses working in selected hospitals was created. There were four parts of the questionnaire; an area of nursing classification systems, nursing conceptual models, nursing documentation and the field of multicultural nursing.

The research has addressed seven selected hospitals of South Bohemia region in the Czech Republic. Research sample was formed to file nurses working in selected hospitals in standard wards and intensive care units. Departments were chosen so that both internal and surgical focuses. Research was formed to set a total of 565 (100%) nurses. There were 184 (32%) intensive care unit nurses and 381 (68%) nurses from the standard department. Individual hospitals were not compared to each other, because this was not the aim of our research. Data from the survey were compiled by the statistical program SASD 1.4.4.
Results:

| Tab. 1 Usage of nursing documentation Používání ošetřovatelské dokumentace (N 563) |
|---------------------------------|---------------------------------|
| Yes                             | No                              |
| Not sure                        |                                 |

This table presents, whether nurses use nursing documentation, and it is evident, seeing the table, that nurses use nursing documentation in most cases. This result is not surprising, since in the Czech Republic the use of nursing documentation is a part of policy according to the Concept of the Czech nursing, but it is also established by law. What is surprising is the fact, that there are medical facilities or departments where nursing documentation is still not implemented.

Another area that has been detected by the questionnaire was nurses' satisfaction with the current nursing documentation they have at their departments. Nursing documentation is not uniformed in the Czech Republic and the differences may be evident not only among hospitals but also among different hospital departments. Nurses adjust documentation as required by their departments or disciplines. It is therefore important to determine whether the documentation meets the nurses and their requirements (see Tab. 2).

| Tab. 2 Current type of documentation is good enough for nurses (N 551) |
|---------------------------------|---------------------------------|
| I agree completely              | I mostly agree                  |
| Not sure                        | I mostly disagree               |
| I disagree completely           |                                 |

Table 3 gives the form of documentation used by nurses. As the table shows, most of the nurses use a paper form of nursing documentation in their work. This fact is also supported by legislation, since the medical records provided by health care facilities in the Czech Republic in electronic form have to be yet backed up by hard copies.
The Concept of the Czech nursing includes the use of standardized classification systems, so we wondered if nurses used the system of nursing diagnoses (see Table 4). “I do not know” answer was surprising but we assume that the answer was given because of inattention during completing the questionnaire.

In the first phase of our grant investigation during which an in-depth analysis of nursing documentation was done, we found out that each hospital works with nursing diagnoses differently, thus each has a different system for their processing. We were interested in whether this system meets the nurses. As it is evident from Table 5, in most cases a system that is used meets the nurses. In addition, nurses were asked whether they consider nursing diagnoses to be beneficial for the patient (see Table 6). Here the results are not entirely clear. The views of nurses in this area are rather balanced and 12% of nurses do not have the strong opinion about this question.
Nursing as a developing discipline works with another classification systems such as NIC and NOC. The working group NANDA, NIC (nursing interventions classification) and NOC (Nursing objectives classification) first met in 1997. This ushered in linking the results of the three classifications. The product with the standard names of nursing diagnoses, which are connected to properly selected nursing goals and interventions, was created. Classification NIC (Nursing Interventions Classification) is among the projects that are led by the Center for Nursing Classification and clinical effectiveness. The interventions are ranked in terms of abstraction in the three-level taxonomic structure. The classifications of expected outcomes of nursing care NOC (Nursing Outcomes Classification) are another from continuous projects of the Center for Nursing Classification and clinical effectiveness.

In our research we interviewed the nurses, if they used standardized classification systems NIC and NOC. As it is evident from Table 7, the system is used by 13% of nurses. Other issues related to using of those systems have focused on whether nurses can work with these systems and whether these systems are considered to be beneficial (see Table 8, 9). The results in this area are not valid in any case, since the system did not appear anywhere within the content analysis of nursing documentation, and even interviews which were conducted with head nurses did not confirm the fact that the system is used by nurses in hospitals. We suppose that nurses do not know these systems and they interchange it for the systems of nursing diagnoses.

<table>
<thead>
<tr>
<th>Tab. 6 System of nursing diagnoses used at departments is beneficial for nursing (from the nurses' point of view) (N 498)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I agree completely</td>
</tr>
<tr>
<td>I mostly agree</td>
</tr>
<tr>
<td>Not sure</td>
</tr>
<tr>
<td>I mostly disagree</td>
</tr>
<tr>
<td>I disagree completely</td>
</tr>
</tbody>
</table>
Tab. 7 Using clasificational systems NIC and NOC (N 563)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Not sure</th>
</tr>
</thead>
</table>

Tab. 8 Nurses are able to use the clasificational systems NIC and NOC (N 71)

<table>
<thead>
<tr>
<th></th>
<th>I agree completely</th>
<th>I mostly agree</th>
<th>Not sure</th>
<th>I mostly disagree</th>
<th>I disagree completely</th>
</tr>
</thead>
</table>

The final table (Tab. 9) shows if the nurses consider nursing classification systems to be useful. The results say that most of nurses (62 %) think these systems are beneficial.

Tab. 9 Clasificational systems are considered beneficial by nurses (N 305)

<table>
<thead>
<tr>
<th></th>
<th>I agree completely</th>
<th>I mostly agree</th>
<th>Not sure</th>
<th>I mostly disagree</th>
<th>I disagree completely</th>
</tr>
</thead>
</table>

Discussion:

Initial results of the survey, which was focused on the use of standardized classification systems, have brought the expected results. The Czech Concept of nursing, which includes the use of classification systems, has been valid in the Czech Republic for more than 7 years, and the results showed it is obeyed. What is striking is the fact that 2% of nurses do not use the nursing documentation in their profession, which is compulsory by legislation. This information should be a challenge for the hospital managements to make necessary steps, because well-maintained documentation proves the correctness of procedures, insufficient documentation could be sufficient reason to impose sanctions. It is not possible to advocate the correctness of procedure in providing the nursing care if the documentation is inadequate and poor.

Nurses set nursing diagnosis within the nursing process, which is the basic method of providing professional nursing care. As it has been already written, each hospital has a
different system for their processing. We assumed that nurses are not satisfied with working with nursing diagnoses. Our assumption was based on the fact that although the nursing diagnoses have been used for many years in the Czech Republic, nurses still do not agree with them. The research results have shown the opposite. Nurses meet the processing system of nursing diagnoses, so they also see the benefits for nursing practice in this processing. We consider that being a large shift in working with nursing diagnoses. Correctly determined nursing diagnosis and reflecting nursing plan are the foundations for providing professional nursing care.

The area of nursing documentation versions, which we have also investigated, showed the consistent results as the interviews we made with the head nurses in selected hospitals. As Stankova stated (1999), the purpose of nursing documentation is not to prolong the time nurses devote to administrative work. This does not correspond with our research. Nurses reported that the written nursing documentation is the most commonly used form of it. If we think about all the nursing documentation content, it is clear that it takes a lot of time. This fact is highlighted by Gugerty (2007) and his research, where the research sample consisted of 925 nurses and 54% of this number agreed that nursing documentation takes 25 to 50% of their work time, and 29% spend more than 51% of that time working with nursing documentation. (Gugerty, 2007). Hospitals should therefore move to electronic form of nursing documentation in order to shorten the time which the nurse does not spend with the patient as much as possible.

In the case of standardized classification system, the results are contradictory. Some nurses responded positively to the question whether these systems are used by them, which is not true. These systems are widespread in the U.S. especially, but also in Western Europe. As mentioned above, these systems were not found in the analysis of nursing documentation. It is evident, that nurses responded to this question without any knowledge of NIC and NOC classification systems. These systems have certain rules for processing and they can not be interchanged for interventions or goals that are set by nurses themselves. From the total of 565 (100%) nurses, 18% of nurses had higher education. We believe that these nurses should have been informed about standardized classification systems. However, at present we are waiting for further statistical processing, and therefore we have no detailed results.
Conclusion

In conclusion, we can say that nurses have a positive attitude to classification systems which have been used in the Czech Republic for some time, for example NANDA taxonomy. Nevertheless, in order to fulfil its purpose and to make it really effective, it is necessary to improve nursing documentation, which should be in electronic form and it should facilitate the nurses’ work. It is also necessary to develop other classification systems such as NIC (Nursing Interventions Classification) and NOC (Nursing Outcomes Classification), which could serve to reimburse nursing performances. It is true, that these changes will not be easy, but if they are realised, the Czech nursing will achieve a very professional level.

The article was elaborated in connection with the grant task GAJU JU 079/2010/S

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PLAY ACTIVITIES FOR CHILDREN IN PAEDIATRIC WARD –
A NECESSITY OR A HIGH STANDARD?

Zlatica Dorková

Tomas Bata University in Zlín, Faculty of Humanities, Institute of Health Care Studies, Institute of Applied Social Sciences, Czech Republic

Abstract
The aim of this paper is to state answers to several sub questions which the author of this paper asks in the context of play activities in paediatric ward. The paper is based on the concept of humanized medical care; it is such care, which consists in the application of knowledge of developmental and clinical psychology in working with ill children. Part of this paper are also 3 educational plays/activities that can be used by a general as well as a children’s nurse.

Key words: child, illness, hospitalization, play, play activities.

Introduction
The starting point of this paper is to consider whether play activities for children in paediatric ward are a necessity or a high standard? Is a hospital facility for the child care only or it should provide some educational and training activities? What play activities are best for children in hospital? These are questions I will try to answer in this paper.

Text
A child who is hospitalized in a hospital often finds himself in a foreign environment and among people who does not know. He must cope with a disease, pain, separation from his parents, friends, classmates, etc. A child who enters a hospital usually does not know how long he will be hospitalized and it may cause an even greater sense of insecurity and fear of the unknown environment. It is important to realize that a child in hospital usually has no control over what has been happening to him and is totally dependent on staff that treat him. It is also quite understandable that a child activates his defense mechanisms, such as crying, denial, apathy or, on the contrary, anger and aggression. The members of the multidisciplinary
team have to count with this, communicate with the child and try to help him. A nurse who works with a child must bear in mind his basic needs (Rezníčková in Sedlářová, 2008, p. 139), i.e.:

2. need for a loved one, usually the mother;
3. need for repeated and understandable information;
4. need for privacy and security;
5. need for choice;
6. need for a safe and stimulating environment according to child's age;
7. need for contact with extended family and peers;
8. need for play and education.

As already mentioned, the primary task of a nurse is to meet the needs of a child. The latter need of a child concerns the possibility to play and educate. A nurse has an obligation to ensure play activities for children and this competence is also treated legislatively, specifically in § 4 of Decree No. 55/2011 Coll. on the activities of health workers and other professionals. Other persons, who are in charge of the educational process for hospitalized children, are the teachers working at schools that have been established within medical facilities. The aim of a kindergarten at a hospital is to overcome the critical time for a child during hospitalization, improve his mental condition which is associated with faster healing, keep the developmental level and try to return the child without any negative effects to his home. In elementary school at a hospital, children are taught according to teaching plans and curricula of elementary school, reduced and adjusted based on the health of pupils, then according to the time range of teaching allowed to individual pupils by doctor and according to time-consuming treatment regimen (Plevová, 1997, p. 19, 37).

A child is, in addition to nurses, teachers and parents, also taken care of by a play specialist. The aim of a play specialist is to invent play activities for children, organize play programs, encourage children to play, prepare children for surgery and examination, guide them through the stay in hospital etc. A play specialist primarily in his work does not use a therapy, although sometimes a play activity has secondary therapeutic effect. It is a pity that in our country a play specialist is still understood as a worker who merely entertains the children and plays with them, but not as a member of a multidisciplinary team that cares for the child. In general terms, a play has a unique place as an irreplaceable part of human life. It can not be replaced or substituted by anything. For a child, a play fulfills the function of training and
preparation in terms of physical activities as well as preparation for social roles and social behavior in general, for respecting the rules and for competitiveness as well. A play also enhances all abilities of a child to overcome obstacles and face difficulties (Douša in Bláha, et al., 2007, p. 15). And this is what is important in times of illness – to support a child to handle obstacles and face difficulties. To be able to do so, a nurse can use so-called controlled play (we also call it an educational play), through which a child can understand his own illness and everything that happens to him in hospital. An educational play is not about results, but primarily it is about an activity itself. Within the educational play a nurse may use different aids according to child’s age (see Table No. 1).

<table>
<thead>
<tr>
<th>Type of aid</th>
<th>Example of aid</th>
<th>Purpose of aid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Book</strong></td>
<td>[Image of book]</td>
<td>The aim of children’s book titled „The place I know – hospital“ is to prepare a child for situations in which he may find when will be (or is) hospitalized. The book contains pictures, a simple story and a number of tasks. In this book, a child can also see the section of the hospital and learn what is hidden in it.</td>
</tr>
<tr>
<td><strong>Workbook</strong></td>
<td>[Image of workbook]</td>
<td>Workbook contains tasks that a child can fill with the help of a character – Matylda. Tasks primarily relate to the health education, for example the workbook contains the correct procedure of teeth brushing, the task to explore a human body, a freestyle drawing of a doctor and a nurse who care for a child, etc.</td>
</tr>
</tbody>
</table>


**Coloring**

Funny coloring has a positive effect on a child. The aim of the coloring is to wish a child early recovery.

*Unknown source.*

**Comics**

It is a comic book guide to diabetes. The main character is a boy – Adam, who suffers from diabetes mellitus and doctor Lužička, who is Adam's „guide“ to disease. Comics contains basic information about the disease, such as what is diabetes, how to measure blood glucose, what is hypoglycemia, etc.


**Brochure**

Brochure „Oli and Misa at Mrs. Doctor“ describes in non-violent and funny form a course of usual preventive examination and thereby a child can get rid of any negative feelings that visit at a doctor can cause.

Story

“When Dinosaurs Die” is psychologically well-researched story, which is a good helper for talk with children about the important things in life, such as life, dying and death, grieving, remembering, etc.


Educational film

This is an animated educational film for children of age four to eight years suffering from diabetes mellitus and also for their parents and friends. The film explains, but also provides social support to children and connects the film and the reality of young children who suffer from diabetes mellitus.

*Animated educational film for young children with diabetes.* Produced by animation studio in Hradec Králové.

Doll

Didactic dolls „Pepin“ and „Pepina“ are not only toys, but they serve mainly to practice basic skills related to dressing. In hospital, they were proven to be companions of children in the room.

Website:
<http://www.dracek.cz/didakticka-pepina/didakticke-a-motoricke-hracky>
Mediator

"Clown" can serve as so-called mediator between a child and a health worker. It can also be easy to communicate through his big hands and nose that produces sound.

Own source.

Medical aids

Miscellaneous medical aids a child in hospital can come across, for example syringe, stethoscope, hats, patches, bandages, etc. A child can get familiar with these aids and their use, which may alleviate fear during procedure.

Own source.

Table No. 1: Examples of aids for educational play

For a child who is hospitalized long-term, the desire for a variety of educational activities is urgent and poignant. The hospital is not just a place of therapeutic interventions and treatment, but also has to be a place of training and education. Each activity that is performed with a child must be properly selected and dispensed. The importance of employing children as part of the treatment and education talks Trnka, who created a methodology for working with children in hospitals already fifty years ago. Trnka’s concept is based on a child’s need for an activity (so-called a child’s desire for an activity) and this need can be meet by tasks that encourage a child to action. He also emphasizes the need for a positive emotional contact, the need to look forward to something and experience of joyful expectation. There is also an obvious effort to satiate the need for curiosity, awareness and understanding (Michal in Trnka, 1971, p. 98). What all these principles mean? Trnka (1971, p. 13) in his book „Employment of children as part of treatment and education“ states on the child’s desire for an activity: „We
came to seven years old Milada Š., who had been lying in paediatric clinics for long-term fever for six weeks. And we were amazed: she was making something on the board, situated across the bed. She had a pin in her hand, which pulled out of her blond hair, and there was a scrap of newspapers in the front of her, in which her mother had brought some spring flowers yesterday. Just a scrap of newspapers...And from these two basic things, a material and a tool, she created two figures that lie ahead...(see Picture No. 1).

![Picture No. 1 (Trnka, 1971, p. 13)](image)

**Oops!** The desire of a child for an activity finds its use even with the most primitive means! *What a miracle! We said correctly: She created two figures. Is there so much creative passion, the urge, which creates despite the all obstacles in this activity, as in an adult artist when creates a sculpture, a painting, a poem or a novel*“.

As we see, play activities for hospitalized children may have a multifaceted meaning. Now I will deal primarily with educational play through which a child can acquire new knowledge and skills and it has a preparatory, developmental, stimulatory, saturation and last but not least therapeutic function. The aim of an educational play is:

63. making contact with a child;
64. gaining the trust of a child;
65. explanation of the course of an examination, treatment, surgery, etc;
66. soothing the child;
67. reduction or getting rid of fear of an examination, treatment, surgery, etc.;
68. expression of child’s relation to his illness;
69. preparation of child for care after an examination, treatment, surgery, etc.

As Řezníčková states (in Sedlářová, 2008, p. 146), if a nurse realizes the importance of play for a child and uses it as a mean of communication, she will do much not only for the patient
himself, but also for herself. Nursing care then will be much better, more successful and a
child will better cooperate.

Now I will present examples of educational plays/activities that a nurse can use while
working with children. These educational plays/activities were created within the course
Methodology of educational care for children, with students of General Nurse field of study at
the Institute of Health Care Studies of Faculty of Humanities at Tomas Bata University in
Zlín. Educational plays/activities are processed according to a single methodology which
includes: name of activity, type of activity, target group, number of children, goals of activity,
aids, methodology, evaluation and attachment.

<table>
<thead>
<tr>
<th>Name</th>
<th>Coloring and dots connecting with health theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>educational activity</td>
</tr>
<tr>
<td>Target group</td>
<td>children 5 to 10 years</td>
</tr>
<tr>
<td>Number of children</td>
<td>unlimited</td>
</tr>
<tr>
<td>Goals</td>
<td>The goal of the activity is:</td>
</tr>
<tr>
<td></td>
<td>16. to entertain the children in hospital;</td>
</tr>
<tr>
<td></td>
<td>17. to make waiting for the examination more pleasant;</td>
</tr>
<tr>
<td></td>
<td>18. to learn about colors;</td>
</tr>
<tr>
<td></td>
<td>19. to practice the sequence of numbers.</td>
</tr>
<tr>
<td>Aids</td>
<td>coloring books, colored pencils</td>
</tr>
<tr>
<td>Methodology</td>
<td>We distribute coloring books with health theme, dot connecting pictures and colored pencils to children. Children will try to color the picture with the same colors as the model picture. Dot connecting pictures are filled so that the line goes from dot 1 to dot 2 to dot 3, etc.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Here is the room for evaluation activities</td>
</tr>
<tr>
<td>Attachment</td>
<td>Coloring and dot connecting pictures are available for example on the website <a href="http://www.malypacient.cz">http://www.malypacient.cz</a>.</td>
</tr>
</tbody>
</table>
Table No. 2: Educational play/activity No. 1 (Bartíková, Dorková, 2011)

<table>
<thead>
<tr>
<th>Name</th>
<th>Aja the Bee and Vilik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>educational activity</td>
</tr>
<tr>
<td>Target group</td>
<td>preschool children with diabetes mellitus</td>
</tr>
<tr>
<td>Number of children</td>
<td>maximum of 10</td>
</tr>
<tr>
<td>Goals</td>
<td>The goal of the activity is:</td>
</tr>
<tr>
<td></td>
<td>20. to explain to children through fairytale the importance of application of insulin;</td>
</tr>
<tr>
<td></td>
<td>21. to reduce fear in children of application of insulin;</td>
</tr>
<tr>
<td></td>
<td>22. to educate children about the symptoms of hypoglycemia.</td>
</tr>
<tr>
<td>Aids</td>
<td>Aja and Vilik puppets, fairytale</td>
</tr>
</tbody>
</table>
| Methodology           | We make children familiar with a puppet through which we will tell them the story of Aja the Bee and Vilik. Fairytale is: „Once upon a time there was a tiny bee kingdom, where a bee queen and a bee king lived happily. They expected the birth of little Vilik. Everyone was very happy and they eagerly waited for his coming into the world. Finally the time came. As Vilik was growing up every day, parents were already looking forward to their first trip out of the hive to get to know the surrounding world. When that glorious day for Vilik came, something happened: „Our Vilik fell ill“ cried all the bees from the hive. Mr. King was very sad because nobody knew what suddenly happened to Vilik. Once he was full of strength and then the poor thing could not even get out of bed as he was tired and thirsty. Everyone worried about Vilik so much and was looking for all sorts of charlatans and doctors, but none of them knew what to do with Vilik. Until one fine day, some unknown bee was accidentally hanging around the hive. Other bees were very curious and asked: „What are you doing here?“ The bee immediately answered: „Good morning, ladies, my name is Aja and I heard that your prince Vilik is ill, so I was sent out of a distant bee hospital to help him“. When the bee king heard that, he immediately called Aja because he was curious about how she wants to heal Vilik. The bee answered that she will show him everything. So they came to Vilik's bed and Aja started to explain: „Dear Vilik, now I have to inject a magical potion into your leg that is called insulin and it will immediately put you back on your feet. Then you will have to inject this potion on a regular basis, even before the meals to make you healthy and can play outside with other bees. You just have to pay more attention to the sweet honey and can not overeat during celebrations, otherwise you could fall ill again. Since Vilik has been receiving the magical potion from the bee regularly, felt no fatigue and could devote to all of the games. At the end of the fairytale, together with puppets, we will ask
children different questions to know, whether they understood the fairytale and to talk with them about it as they themselves are experiencing the illness (e.g. Who does inject you the insulin? Are you afraid of the application? How long have you been injecting the insulin already? etc.).

Evaluation

Here is the room for evaluation activities

Attachment

//

### Table No. 3: Educational play/activity No. 2 (Uhlíková, Dorková, 2011)

<table>
<thead>
<tr>
<th>Name</th>
<th><strong>How glasses came to little waterman</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>educational activity</td>
</tr>
<tr>
<td>Target group</td>
<td>children 5 to 8 years</td>
</tr>
<tr>
<td>Number of children</td>
<td>maximum of 10</td>
</tr>
<tr>
<td>Goals</td>
<td>The goal of the activity is:</td>
</tr>
<tr>
<td></td>
<td>23.  for a child to realize the necessity to wear glasses and was not afraid of ridicule.</td>
</tr>
<tr>
<td>Aids</td>
<td>puppet of little waterman, fairytale, glasses</td>
</tr>
<tr>
<td>Methodology</td>
<td>We introduce the puppet of little waterman to children through which we tell them a fairytale: „In the nearby woods there was quite a tiny pond, where Francis the little waterman lived along with his mom, dad and two older brothers. Every morning Francis went along with his brothers to the nearby school for watermen. Brothers were always very successful at school, but Francis had big problems with counting bubbles and fish and also poorly saw letters on the blackboard. He was always very sad when he got a bad grade and all friends laughed at him. The teacher was unhappy with his school results and his parents The Watermen did not know what to do with him. Mother was always angry at Francis and thought that he certainly paid no attention at school and therefore Francis had to learn at home with his mother. Mother wanted Francis to calculate how many fish just floated around their house. Francis, however, failed to count the fish, wept and told his mother that he saw the fish poorly, but was afraid to tell someone. The very next day mother went with Francis to Mr. Doctor Waterman who thoroughly examined his eyes and prescribed him beautiful glasses. Once he put it on the eyes, he just saw even the smallest fish. Since then Francis has been getting straight A's at school, the teacher has praised him and his friends have not been laughing at him any more and wanted to borrow his new glasses“. At the end we ask children how they liked the fairytale and give out pictures of a waterman to color, where they can also draw the glasses. Then we talk with them on a given subject, for example how long have they been wearing glasses, if they have ever been ridiculed, if someone else in their family wears</td>
</tr>
</tbody>
</table>
Evaluation
Here is the room for evaluation activities
Attachment
Pictures with a waterman

Table No. 4: Educational play/activity No. 3 (Sikorová, Dorková, 2011)

Conclusion
What to say in conclusion? The highlight of the medical and nursing care is an effort to make a child feel good in the hospital, not be afraid and not feel the abandonment and to have something to look forward to. One of ways to achieve this is just the activation of children through a variety of freestyle or controlled plays. I do not consider play activities in paediatric ward as a high standard, but a necessity.

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Přípomínky: Prosím v texte upravit typ závitovek podľa predlohy. Upraviť označenie tabuliek, podľa požiadaviek nad tabulkou.
Breastfeeding and its significance

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Czech Republic

Abstract

Introduction
Researches from recent years anonymously confirm many advantages of breastfeeding or feeding of infants with maternal milk for mother, baby, family and all society.

Aim of the study
The main objective of this research is to prove the significance of breastfeeding for child.

Material and methods
Research sample consisted of 2009 to 11 years old children. Data were collected by the method of questionnaire with which we determined the occurrence of allergies, middle ear inflammation, eczema and diarrhea of breastfed and non breastfed children. We determined if breastfed children are more successful in school compared with non breastfed children.

Results
Questionnaire research proved that breastfed children suffer less from middle ear inflammation, allergies, eczema and diarrhea and have better results in school and their integration into groups is easier.

Conclusions
Maternal milk is the most natural and the most valuable nutrition for newborns and infants.

Key words
Breastfeeding, maternal milk, nutrition, importance of breastfeeding.
Introduction

Maternal milk is with its consistence and variability unique for the nutrition of infants. All children should be exclusively breastfed until the age of six months (Roztočil, 2008). Main advantages of breastfeeding for baby are better digestibility of maternal milk, better development of nerve and recognizing functions, lower burden to kidneys, lower risk of acute and chronic diseases, diarrhea and related illnesses, lower respiratory infections, middle ear inflammation, malignant hematopoietic disease, leukemia and lymphomas, less anemia, hypercholesterolemia, necrotizing enterocolitidis, allergies, diabetes, ulcerous colitis and many other diseases of gastrointestinal tract (Gregora, Paulová, 2005). The advantages of breastfeeding for mother are lower occurrence of anemia, osteoporosis, lower risk of breast or ovarian cancer and minimal economy demands (Schneidrová, 2006).

Material and methods

The aim of this work was to prove the importance of breastfeeding for baby. We compared the occurrence of allergic reactions, middle ear inflammation, eczema and diarrhea among the breastfed and not-breastfed children. We researched if breastfed children are more successful in school than non-breastfed children and how is their integration into groups.

We used the quantitative research with anonymous questionnaire. The research environments were waiting rooms of general practitioners for children and adolescents. The researching sample were 200 children age 9 to 11 years. We intentionally searched for 100 respondents who were breastfed 9 months and longer and for 100 respondents who were not breastfed or who were breastfed less than 3 weeks.

Anonymous questionnaires were distributed to mothers with the children of predetermined age and they answered 17 questions concerning their children’s illness rate and school results. The return rate was 100% thanks to the assistance of pediatric doctor’s nurses.

Results

Results were collected by the non-standardized questionnaire which was assembled exclusively for this research.
Table No. 1: Occurrence of allergic diseases

<table>
<thead>
<tr>
<th></th>
<th>Breastfed children</th>
<th>Non-breastfed children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24 (24%)</td>
<td>56 (56%)</td>
</tr>
<tr>
<td>No</td>
<td>76 (76%)</td>
<td>44 (44%)</td>
</tr>
<tr>
<td>∑</td>
<td>100 (100%)</td>
<td>100 (100%)</td>
</tr>
</tbody>
</table>

Out of the 100 breastfed respondents, 24% suffered from some kind of allergic disease. The remaining 76% of breastfed children did not suffer from any. Out of the 100 non-breastfed children, 56% suffered from some kind of allergic disease and 44% did not suffer from any.
Table No. 2: Occurrence of diarrheal diseases

<table>
<thead>
<tr>
<th></th>
<th>Breastfed children</th>
<th>Non-breastfed children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td>0 0%</td>
<td>6 6%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>13 13%</td>
<td>34 34%</td>
</tr>
<tr>
<td>Rarely</td>
<td>87 87%</td>
<td>60 60%</td>
</tr>
<tr>
<td>Σ</td>
<td>100 100%</td>
<td>100 100%</td>
</tr>
</tbody>
</table>

Out of the 100 breastfed children, 0% suffered from the frequent diarrheal diseases, 13% suffered from them occasionally and 87% only rarely. Out of the 100 non-breastfed children 6% suffered from the frequent diarrheal diseases, 34% suffered from them occasionally and 60% only rarely.
Table No. 3: Middle ear inflammation

<table>
<thead>
<tr>
<th></th>
<th>Breastfed children</th>
<th>Non-breastfed children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td>5 5%</td>
<td>18 18%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>31 31%</td>
<td>57 57%</td>
</tr>
<tr>
<td>Never</td>
<td>64 64%</td>
<td>25 25%</td>
</tr>
<tr>
<td>∑</td>
<td>100 100%</td>
<td>100 100%</td>
</tr>
</tbody>
</table>

Out of the 100 breastfed children, 5% suffered from middle ear inflammation frequently, 31% suffered from it occasionally and 64% of them have never had it. Out of the 100 non-breastfed children, 18% suffered from middle ear inflammation frequently, 57% suffered from it occasionally and 25% of them have never had it.
Table No. 4: Occurrence of eczema

<table>
<thead>
<tr>
<th></th>
<th>Breastfed children</th>
<th>Non-breastfed children</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
<td>29</td>
<td>43</td>
</tr>
<tr>
<td><strong>No</strong></td>
<td>71</td>
<td>57</td>
</tr>
<tr>
<td><strong>∑</strong></td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Out of the 100 breastfed children, 29% of respondents suffer or suffered from eczema and 71% of respondents did not. Out of the 100 non-breastfed children, 43% of respondents suffer or suffered from eczema and 57% of respondents did not.
Table No. 5: Integration into the group

<table>
<thead>
<tr>
<th></th>
<th>Breastfed children</th>
<th>Non-breastfed children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without problems</td>
<td>69 (69%)</td>
<td>44 (44%)</td>
</tr>
<tr>
<td>With little problems</td>
<td>28 (28%)</td>
<td>35 (35%)</td>
</tr>
<tr>
<td>Can not integrate</td>
<td>3 (3%)</td>
<td>21 (21%)</td>
</tr>
<tr>
<td>∑</td>
<td>100 (100%)</td>
<td>100 (100%)</td>
</tr>
</tbody>
</table>

Out of the 100 breastfed children, 69% integrated into the groups without problems, 28% could integrate with little problems and 3% were not able to integrate. Out of the 100 non-breastfed children, 44% integrated into the groups without problems, 35% could integrate with little problems and 21% were not able to integrate.
Out of the 100 breastfed children, 63% had excellent school results, 37% had average school results and 0% had serious problems with learning. Out of the 100 non-breastfed children, 48% had excellent school results, 43% had average school results and 9% had serious problems with learning.

Discussion
The objective of this work was to find the proof of the importance of breastfeeding to health of babies and to their school results.
We assumed that breastfed children will be less ill than non breastfed and this assumption was confirmed. We found out that breastfed children suffered less from allergies, middle ear inflammation, eczema and diarrhea compared with non breastfed children. Nevoral and
Paulova (2007) also mentioned the positive influence of breastfeeding to the elimination of allergies, diarrhea and middle ear inflammation. Danish scientists conducted the wide research of three thousandths of Danes. Researched subjects completed IQ tests and the results was that the breastfeeding longer than nine months gave them the long term intellectual advantage. Those results were published in the Journal of American Medical Association. The results were clear – longer period of breastfeeding correlates with the higher level of IQ (Mydlilová, 2005).

Also scientists from New Zealand monitored thousand children till the age of 18 and than they measured their IQ, reading skills and mathematics. The results also confirmed the relation of longer breastfeeding with better results (Mydlilová, 2005).

Also in the United States was conducted the research which examined the differences in the mental and motor skills between breastfed and non-breastfed children. Again, it was proven that the longer period of breastfeeding the results of IQ tests are higher (Mydlilová, 2005).

With the problematic of propagation and support of breastfeeding deal in the Czech Republic the Lactation league.

**Conclusion**

Maternal milk is the most natural and the most valuable nutrition for newborn and infant and it is not possible to replace it in its full specter of effects.

Our research confirmed that breastfeeding can eliminate the occurrence of allergies, diarrhea, middle ear inflammation or eczema and it can positively influence the school results and ability to integrate into groups.

Breastfeeding is a gift, majority of mothers is able to breastfeed and in is important to support them maximally.

**References**


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Netography


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MOTIVATION IN EDUCATION OF DIABETIC PATIENT IN VASCULAR SURGERY

Edita Hlinková, Jana Nemcová, Katarína Žiaková

Department of Nursing, Jessenius Medical Faculty in Martin, Comenius University in Bratislava, Slovakia

Introduction: The presence of chronic complications of diabetes mellitus (DM) as well as comorbidities may reduce the motivation, adherence and compliance in therapy, but on the contrary, lack of motivation and non-compliance, may be an important cause of their origin. The aim of the intervention (uncontrolled) study was to analyze the dimension of motivation in patients with DM in vascular surgery (with diabetic foot syndrome, DFS and ischemic disease of lower extremities, IDLE).

Methodology: In the examined file the effect of intervention was compared with data acquired before education and after 6 months. To collect empirical, data, we applied diagnosis contextual analysis in medical documentation, a structured dialogue, a structured observation and own construction questionnaire. We analyzed the practical reasoning by means of qualitative research method of casuistic.

Results and discussion:
We did not observe any differences in position of surgical diagnosis before education. Both patients sampled did not show enough purposeful will, to act non-autonomous under external pressure. Statistically significant relationships measured at 5 % significance level, we confirmed in terms of education (p=0.023), marital status (p=0.001) and membership in a club diabetics (p=0.006). Patients with IDLE were motivated and willing to learn after education (p = 0.037) and by group educated (p = 0.001).

Conclusion: Based on the statistical results of the study were enrolled in educational assessment of diabetic patients in vascular surgery category will, willingness and motivation to learn (compliance is / adherence).
Keywords: motivation in educational process, a vascular-surgery patient, Diabetic Foot Syndrome (DFS), Ischemic Disease of Lower Extremities (IDLE), social interpretation method

Introduction
In the context of education of patients with DM are important results of the impact of DM on the motivation. DM is one of the most challenging diseases in terms of changes in physical, psychological and social (Jirkovská, 2006). Several theories attempt to describe the motivational phenomenon. However, none are thorough regarding the process. It is worth highlighting that despite their diversity, the renowned approaches are not contradictory. Rather, they are complementary and, thus, permit understanding a certain motivational phenomenon that, in the present study, leads to treatment compliance or non-compliance. The theories that aim to describe motivation as well as the influencing factors include: Leventhal’s model of Behaviour Self Regulation, Treatment Compliance Models, The Health Belief Model (Apostoló et al, 2007), Health Action Model, Protection Motivation Theory, Social Cognitive Theory, Theory of Reasoned Action, Theory of Planned Behaviour (Rankin-Stallings-London, 2005). Education of diabetes patients is not only an integral part of treatment, but it is a separate section in accordance with the Declaration of Saint Vincent, the Acropolis Affirmation Diabetes Care and the Lisbon Agreement. Therefore, it is referred to as therapeutic education. It focuses on changes in the sphere of knowledge, understanding of each other. Purpose must become desirable, must have some, patients received value, bringing a shift in beliefs and attitudes. Important is to assist patients in obtaining skills, especially the result in a change of lifestyle (Žiaková, 2000). Patient education is the process of influencing behaviour, producing changes in knowledge, attitudes, and skills required to maintain and improve health. The process may begin with the imparting of information, but it also includes interpretation and integration of information to bring about attitudinal or behavioural changes that benefit a person’s health status (Rankin, 2001).

The present research represents a new, systematic approach to providing information and education of diabetics in vascular surgery. Using methods of humanitarian conditions of interpretation reveals the effectiveness of education, which has affected the patient's behavior and actions to reduce the incidence of diabetic ulcers and amputations in group 2 diabetes. Finding new approaches to effective education of diabetics in preventing DFS is an effort to ensure the quality of nursing care and meeting the requirements of The International Diabetes Federation (Brussels, 2008).
The presence of chronic complications and comorbidities may reduce the motivation, adherence and compliance in patient therapy, but conversely the lack of motivation and non-compliance, may be an important cause of chronic complications of diabetes (Santos, 2005).

**Goals of research**

The goal of our research was grounded in identifying the differences in patients from the standpoint of age, gender, education, social status, duration of illness, self-help club membership in relation to variables monitored in patients with DFS and IDLE with a practical reasoning scheme (motivation) of a rational actor; in identifying the differences in the respondents’ motivation from the standpoint of gender, age, education, duration of DM, repeated hospitalizations, membership in self-help clubs; analysing the variables monitored as well as ascertaining the strength rate between (among) them from correlation coefficients; in evaluating the determinants of educational judgement to secure educational efficiency.

**Subjects, Methods**

Our research sample (n=100) was made up of vascular surgical patients with diagnosed chronic DM 2 complications – diabetic foot syndrome (Wagner 0 to 5) and peripheral arterial disease - who are registered as out-patients in the Department of Vascular Surgery, University Hospital in Martin (UNM), or were hospitalized in the Clinic of Transplant and Vascular Surgery UNM, as well as in the Surgical Clinic UNM. Patients from all Slovakia are hospitalized in UNM, or attend regular check-ups.

Of the total respondents (n = 100) mean age was 61.08 years (± 6.54 years). Age range of the research sample from 43 to 70 years. This in the age group <60 years 43 and 57 respondents in the category of ≥ 60 years. Duration of DM in the sample of respondents ranged from 1 to 35 years, average duration of DM 13.12 (± 8.03).

We performed an experimental interventional (unchecked) study. The file researched was affected by schooling, e.g. by educational interventions. The efficiency of interventions was compared with data gained before schooling. As the main pre-schooling research tools for the collection of empirical data in clinical practice, content analysis of findings in patient health records, structured interviews and structured observation were used. After schooling, contents analysis of findings in patient health records and as well as our own questionnaire were used, for statistical processing, PASW Statistics software programme. Based on descriptive characteristics, the number of respondents (n – sample size), arithmetic mean (x),
standard perturbation (s), median, maximum and minimum scale value were
determined for each item. From inductive statistical methods, One Way ANOVA,
correlative Cramer’s Quota V Coefficient, Chi-square Test of Independence, Pearson
’s Correlation Coefficient, Geminate t-Test, Multivariate Analysis of Variance were
used. The statistically significant average difference was indicated by p value less
than the chosen significance level 0.05=5%.

Results

In terms of surgical diagnosis

There is no statistically significant relationship between surgical diagnosis (diabetic foot
syndrome vs ischemic disease of lower extremities) and readiness, motivation to change one’s
behaviour and to perform activities in diabetic foot care (p=0.190; correlation 0.132). Similar
statistically insignificant results were achieved through item analysis of motivation and
willingness/readiness as independent variables (table 1).

<table>
<thead>
<tr>
<th>Tab 1 Readiness, motivation to change in terms of surgical diagnosis before education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimension</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>motivation</td>
</tr>
<tr>
<td>willingness</td>
</tr>
<tr>
<td>readiness, motivation to change</td>
</tr>
</tbody>
</table>

Legend: s - standard perturbation; p – level of significance; DFS – diabetic foot syndrome; IDLE – ischemic disease of lower extremities

In terms of demographic: gender, age, education, marital status

There is no statistically significant relationship between gender and readiness, motivation to
change one’s behaviour and to perform activities in diabetic foot care. From the total (n=100)
in our respondent file, the average age was 61.08 years of age (±6.542 years). Therefore,
when dividing the respondents according to their age, we came out of WHO periodization,
e.g. the middle age up to 59 years of age, the early old age over 60 years of age. For the
purpose of statistical processing , just these age groups are distinguished (n < 60 years in 43
respondents; n ≥ 60 years in 57 respondents). The relationship between age and readiness,
motivation to change is statistically insignificant. There is a statistically significant
relationship \(p=0.023, \text{correlation} 0.274\) between education (primary, secondary, university) and readiness, motivation to perform interventions to prevent diabetes complications (table 2). The respondents with university education reached significantly meaningful results (\(x=89.58\)). In our file, the influence of marital status (single, married, widowed, divorced) on readiness, motivation to learn and perform activities to prevent DM complications (\(p=0.001, \text{korelácia} 0.396\)) was proved. The lowest level of readiness and motivation (\(p=0.001\)) occurred in the widowed individuals (widowed \(x=67.32\%\)) (table3).

**Tab 2** Readiness, motivation to change in terms of education (primary, secondary, university)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Education (arithmetic mean ± s)</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>primary</td>
<td>secondary</td>
</tr>
<tr>
<td>motivation</td>
<td>76.85 ± 33.20</td>
<td>83.90 ± 21.66</td>
</tr>
<tr>
<td>willingness</td>
<td>54.63 ± 38.63</td>
<td>64.41 ± 36.02</td>
</tr>
<tr>
<td>readiness, motivation to change</td>
<td>74.84 ± 17.20</td>
<td>80.01 ± 16.72</td>
</tr>
</tbody>
</table>

Legend: s - standard perturbation; \(p\) – level of significance

**Tab 3** Readiness, motivation to change in terms of marital status

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Marital status (arithmetic mean ± s)</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>single</td>
<td>married</td>
</tr>
<tr>
<td>motivation</td>
<td>87.50 ± 17.68</td>
<td>85.29 ± 21.26</td>
</tr>
<tr>
<td>willingness</td>
<td>62.50 ± 53.03</td>
<td>62.13 ± 34.69</td>
</tr>
<tr>
<td>readiness, motivation to change</td>
<td>91.67 ± 5.89</td>
<td>81.92 ± 14.89</td>
</tr>
</tbody>
</table>

Legend: s - standard perturbation; \(p\) – level of significance

**In terms of duration of DM, hospitalization, membership in diabetic self-help clubs**

Statistically significant results were achieved only from the standpoint of membership in diabetic self-help clubs in relation to the spheres of motivation (\(p=0.006, \text{correlation} 0.202\)).

**In terms of effectiveness of educational interventions**

Among patients with DFS as IDLE influence educational interventions have reported differences in the willingness and motivation to learn (\(p = 0.037, \text{correlation} 0.259\)). Patients with IDLE compared with those of DFS were willing and motivated to learn (IDLE \(x = 78.551\); DFS \(x = 70.427\)) (table 4).
Tab 4  Readiness, motivation to change in terms of surgical diagnosis after education

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Patients with DFS (n=52)</th>
<th>Patients with IDLE (n=48)</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>arithmetic mean ± s</td>
<td>arithmetic mean ± s</td>
<td></td>
</tr>
<tr>
<td>motivation</td>
<td>77.42 ± 23.59</td>
<td>86.03 ± 21.49</td>
<td>( p = 0.129 ) eta = 0.190</td>
</tr>
<tr>
<td>willingness</td>
<td>49.19 ± 32.59</td>
<td>63.24 ± 33.28</td>
<td>( p = 0.091 ) eta = 0.211</td>
</tr>
<tr>
<td>readiness, motivation to change</td>
<td>70.427 ± 16.50</td>
<td>78.55 ± 14.29</td>
<td>( p = 0.037 ) eta = 0.259</td>
</tr>
</tbody>
</table>

Legend: s - standard perturbation; \( p \) – level of significance; DFS – diabetic foot syndrome; IDLE – ischemic disease of lower extremities

We note differences between resultant percentage score willingness, motivation to learn the respondents depending on the organizational form of teaching: education of the individual (68,81), education of the group (81,525). Analysis of variance showed a dependence on the readiness, motivation to change one’s behaviour and to perform activities in diabetic foot care from organizational form of teaching \( (p = 0.001) \). The correlation between education and the readiness, motivation is the mean \( (0.404) \). Similar statistically significant relationships we obtained the evaluation of motivation \( (p = 0.007) \) and willingness \( (0.023) \) as independent variables. Correlation relationships motivation to change behavior and organizational form of teaching is the mean \( (0.331) \) and the relationship will and the organizational form of teaching is low, almost medium \( (0.283) \) (table 5).

Tab. 6  Readiness, motivation to change in terms of organizational form of teaching

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Education of individual (n=35)</th>
<th>Education of group (n=30)</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>priemer ± s</td>
<td>priemer ± s</td>
<td></td>
</tr>
<tr>
<td>readiness, motivation to change</td>
<td>68.81 ± 16.02</td>
<td>81.52 ± 12.65</td>
<td>( p = 0.001 ) eta = 0.404</td>
</tr>
<tr>
<td>motivation</td>
<td>75.00 ± 26.43</td>
<td>90.00 ± 14.08</td>
<td>( p = 0.007 ) eta = 0.331</td>
</tr>
<tr>
<td>willingness</td>
<td>47.86 ± 32.86</td>
<td>66.67 ± 31.71</td>
<td>( p = 0.023 ) eta = 0.283</td>
</tr>
</tbody>
</table>

Legend: s - standard perturbation; \( p \) – level of significance; DFS – diabetic foot syndrome; IDLE – ischemic disease of lower extremities

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Discussion

To lover with a chronic incurable illness is to live in state of constant uncertainty. There is more to the challenge of adjusting to a chronic illness than the simple biophysical adaptation to its process. In fact, multiple adaptations are required, and the implied state of uncertainty is deep and personal experience (Landis, 2001; In Ápostolo, 2007). Portugal’s multidisciplinary team realized a study in 2007, whose aim was to determine whether there is a correlation between the degree of uncertainty and motivation for treatment of DM 2. Uncertainty is consideret a major factor affecting adjustment to the illness. The concept of illness uncertainty has been changing over time. These aspects can interferate with the motivational process as well as treatment compliance (Ápostolo et al., 2007). The results of that research has shown that the survey sample was higher intrinsic motivation (x = 5635) as extrinsic (x = 4.48). The overall motivation for treatment x = 5.25 (min.1-max.7). Statistical processing has been concluded that the higher the uncertainty of the diagnosis if treatment is, the less intrinsic motivation to make lifestyle changes, diet, physical activity, glycemic control. Since patients have a low uncertainty degree, it is presumed that they have adopted coping strategies, which humans usually use to face, stress-inducing events, appropriate to their situation, and uncertainty is acknowledged as an opportunity to grow and change. Motivation is a complex variable that integrates the operation of personal human resources (needs, interests, values) against the background of the impact of external resources from the environment, whether accidental or deliberate (educational environment, family and society-wide). These incentive funds can be stable, long-term, respectively. uncertain, short-term. Given a classroom incentive to include more stable source of internal characteristics that develop due to age (Marušincová - Kollárik, 2003).

Confirmed our education as an important factor for the willingness and motivation to learn. A higher level of readiness and motivation in individuals with university education correlates with their personality characteristics (needs, interests, values) when compared to the respondents with primary or secondary education (Marušincová, Kollárik, 2003). We expect

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1 The illness-associated stimuli cause reactions that are, supposedly, explained by the uncertainty theory in four stages: the first comprises the antecedents that generate uncertainty; the second regards perceiving uncertainty as either a threat or an opportunity; the third corresponds to the coping strategies adopted to reduce uncertainty that is considered a threat or, on the other hand, to maintain the uncertainty that is considered an opportunity; and finally, the fourth regards the state of adaptation that results from the adopted coping strategies (Landis, 2001; In Apóstolo, 2007).
the patients with higher education to realize the severity of their health condition (even if no differences from the standpoint of education achieved were proved in the knowledge sphere).

In our file, the influence of marital status (single, married, widowed, divorced) on readiness, motivation to learn and perform activities to prevent DM complications ($p = 0.001$, korelácia 0.396) was proved. The lowest level of readiness and motivation ($p=0.001$) occured in the widowed individuals (widowed $x=67.32\%$).

Reiber et al. (2002) researched the post-amputation diabetic patients and drew the conclusion of a double probability in them to be divorced or widowed. These patients were socially more isolated with disturbed social contacts. In relations with Reiber’s study conclusions, we researched marital status in post-limb-amputation patients as well. After 6 months, high amputations were reported in 2 patients, bellow-the-knee amputations in 4 patients and TMT-area amputation in 3 patients. 6 out of 9 patients were widowed or divorced.

Based on theoretical groundwork on self-help clubs and groups (Majerníková- Jakabovičová-Obročníková, 2008) as well as the results of research essays (Nquyen et al., 2008), describing basic workings (consulting, schooling, rehabilitation, cultural and sporting activities) and benefits of diabetic patients’ clubs (economical benefits, social, legal, emotional, technical help and support, etc.), we studied the spheres in vascular and surgical patients in which there would be statistically significant results (DFS, IDLE). We identified a positive impact on the respondents’ knowledge level, their motivation and the sphere of interests.

Talk about motivation in the education of the patient is aware that: 1) the patient's motivation to learn, the acquisition of knowledge and skills. Motivation is important for identifying and persuading the patient - motivation as one of eight-phase sequence of learning and remembering (motivation - apprehending - acquisition - retention - recall - generalization - performance - feedback); 2) together to shape the themes, create and strengthen the motivation to achieve a change in procedure and behavior - motivated actions and behavior.

Our program has been designed on the basis of motivation theory, we respect the sequence of learning and memory in the processing, where the motivation comes first (Biggie-Sherm, 1999; In Rankin, 2001).

Based on previous experience during the pilot study with a given group of patients we used practical ideas for creating and enhancing motivation: seven motivational factors according to Petty (1996); recommendations for motivating patients by Rankin, Stallings (Rankin, 2001); Prochaska’s stages of change (1994), activating learning (Petlák-Komora, 2003; Zelina,

Practically we have insufficient supply of educational interventions that have been associated with the above elements of motivation in our group of respondents. This resulted in an increased level of motivation among patients with IDLE, compared with patients with DFS. Patients are able to view the photo documentation of images with ulceration, which could lead to negative motivation by fear in a group of patients with DFS, to the denial (Vymětal, 2003). Some authors speak of destructive denial, especially in patients who are highly stressed, his health situation and using the mechanism of denial as a way of coping with intense fear (In Rubin, 1996). Cooperation is maintained through the education of the patient is considered Martinka (2008) as one of the preconditions for achieving the criteria for intensive treatment. Patient compliance in enhancing effective strategies to show cognitive - behavioral therapy, recommended for management education of letters such as educational DESG (DESG, 2001). The scheduling objectives in therapy, recognizing the unconscious negative thoughts automatických that may occur in patients with non-compliance regime, positive reinforcement, incorporating the experience (and mistakes the patient) in long-term monitoring, including keeping a journal on strategies that use cognitive - behavioral therapy (Křivohlavý, 2002; Vymětal, 2003).

We confirmed the assumptions that the group is an important motivating factor (Silberman, 1997; Vymětal, 2003). Analysis of variance (ANOVA) showed a dependence on the willingness and motivation for implementation of activities in the prevention of DM complications from the organizational forms of instruction (p = 0.001). Patients in groups showed statistically significant higher mean score for willingness, motivation and willingness to individually. According to Rankin (2001) learning environment can be a positive motive and the type of interaction (Vymětal, 2003). If you can not use motivational techniques, it is necessary to review the patient reassessment. It may have been changes in the patient's own situation and previous designs are more efficient. Perhaps something has changed in the patient’s situation that makes previous motivators ineffective. For example, a low-to-moderate level of anxiety is an intristincs motivator and may used effectively to motivate the patient with coronary artery disease to learn about necessary diet, medication, and lifestyle changes. However, if this patient has a successful coronary artery bypass graft operation,
therefore, anxiety may no longer be an effective motivator. The health care provider must now reassess the patient to identify other motivators (Rankin-Stallings-London, 2005). Some authors recommend an individual to achieve education has compliance (Jirkovská et al., 2006), our assumptions, however, confirmed the importance of group-teaching, which may have an incentive nature (Křivohlavý, 1995). Working in groups is natural, corresponds to the basic psychological needs and promote the natural activity (Petláč, 1997). Individual education is effective in cases where the focus is on intimate issues.

Conclusions
In patients with DM 2, we meet with an extremely wide range of psychological and social problems which, while we can designate, but we realize that is always a particular individual with a degree of severity of health problems and his personality with individual dispositions, certain characteristics and properties with the degree of resistance to stress, personality experiences, family environment, social support and a variety of other intervening factors. Therefore, nursing assessment should not be underestimated, which should include an assessment of the motivation.

Recommendations for the development of science and education in nursing:
- conduct research on patient motivation (intrinsic and extrinsic motivation, incentive) using a standardized research tools,
- continue our research extended to a larger sample and to improve the research design of the study - a prospective controlled intervention study,
- implement training of competent assessors, educational needs of nurses: clinical practice observation skills, communication, interpersonal, managerial and others.

Recommendations for clinical practice
- differentiate nursing care in terms of education and social status of the patient's motivation to obtain the cooperation of the patient (patient compliance and adherence),
- to strengthen the motivation and getting the patient group for cooperation preferred form of education,
- provide contact-vascular surgical patients with diabetes club.

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Pripomienky: prosím upraviť v texte odsadenie % od čísla, v angl. v desatiných číslach používať „.„ Nap. 33.33, 1.24, upraviť zátvorky na hranaté podľa požiadaviek.
The role of physiotherapy in patients with malignant lymphoedema

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1 National Institute of Oncology, Bratislava, Slovak Republic
2 University of South Bohemia, České Budějovice, Czech Republic

Abstract

Malignant lymphoedema is an edema which is formed when there is the disorder or blockade of lymph vessels. It can be caused by the direct infiltration of a tumour, metastases in the lymph-nodes or by blocking up the lymph-vessels by tumour cells. It is a frequent symptom in the palliative medicine and it decreases the quality of life. Consequent complex therapy (modified manual lymphdrainage, drainage exercises, drainage positioning, hygiene of the derma) is the core of the physiotherapeutic treatment. Malignant lymphoedema is not only a medical problem but it is also a problem of the whole society.

Key words: malignant lymphoedema - causes of the origin - therapeutic modality - quality of life - social impact

Introduction

Lymphoedema is a chronic edema which is formed by influencing the lymph drain [Badger at al. 2007; Bates 2010; Pschyrembel 2002; Stančiak at al. 2009]. The common lymph load cannot be transported due to the influenced transport capacity of lymph vessels. There is an accumulation of liquid in the interstice which is rich in proteins and other macromolecular substances.

Classification of lymphoedema:
I. primary -secondary
II. malignant - benign

III. plain lymphoedema – combined lymphoedema (with other diseases)

IV. urgent lymphoedema - chronic lymphoedema

Edema can be generalized or localized only to some regions and organs of the human body. In the early stage it is soft, easily moveable, when pressing there is a small hole. In the later stage the increased concentration of proteins in the interstice during months and years leads to thickening of derma and proliferation of tissue. Forming of a small hole in the compact tissue is more difficult [Pritschow and Schubert 2008]. The clinical symptom – positive Stemmer mark (forming of skin fold on the finger of the hand or leg) is a clear proof of lymphostasis. A skin fold is more firm and wider than on the contralateral side.

**Material, Methods and Results**

**Causes of the origin of malignant lymphoedema:**

70. It appears suddenly during several days as a symptom of until unknown malignant process.

71. The recurrence of an oncologic disease by compression or dissemination of tumour cells into the lymph-vessels connected with consecutive blockade of lymph flow.

72. A lymph vessel may form a malignant tumour itself (Steward - Treves syndrome) which blocks the lymph flow. Steward-Treves syndrome may appear also with a long-lasting lymphoedema which is irritating the lymph vessel wall by hyperregeneration [Pohtarst and Steckkonig 2009; Pritschow and Schubert 2008].

For anamnesis of the malignant lymphoedema i typical a sudden edema, sharp pain or progression of the existing edema.

**Clinic report**

Edema is centrally prominent, there is the possibility of paresis even plegia of a limb, we can see vessel collaterals, edema is shining and tense (Picture 1), lymph nodes are enlarged and palpable, there is deficit of movement in joints, wounds are cured badly, there are lenticular
metastases, tumour infiltration of drain lymph vessels (lymfangiosis carcinomatosa), spots similar to hematoma (angiosarcom) (Picture 2).

Picture 1. Malignant lymphoedema of the upper limb in progression of breast cancer (own set)

Picture 2. Lymphangiosarcom (own set)

Physiotherapy in the palliative treatment has an important place in the interdisciplinary care of a patient. It is a coordinated and targeted process with the aim to improve the quality of patient’s life and it is motivation not only psychological but also physical. The most important place in the physiotherapy has the decongestive treatment which is represented by lymphdrainage, compressive bandage and drainage exercises. Manual lymphatic drainage is a relative contraindication in malignant processes, but in individual cases in palliative medicine
has its justification modified manual lymph drainage [Albert at al. 2009; Albert at al. 2010a; Albert at al. 2010b; Foldi and Strossenreuther 2007; Hrašnová at al. 2007a; Hrašnová at al. 2007b; Husarovičová and Poláková 2008a; Husarovičová and Poláková 2008b; Potharst and Steckkonig 2009; Pritschow and Schubert 2008; Pschyrembel 2002].

**Therapy**

**Treatment of malignant lymphoedema by methodologies of physiotherapy:**

24. **Drainage positioning**
   Use of the position of a limb for drainage of lymph by gravitation

25. **Modified manual lymphdrainage**
   Touch technique oriented to the lymph system. The transport of a lymph is increased, the bigger capacity of a lymph stretches the wall of lymphangions and increases their mobility. The pressure of touches must not exceed 5.3 kPa. We support the movement of lymph fluid through interstice, extravasating it to the nearest intact lymph capillars. Lymph drainage is accustomed to the clinic state of the patient, touches and time are modified [Foldi and Strossenreuther 2007; Kopáčiková at al. 2009; Kopáčiková at al. 2010; Musilová 2009; Novotný at al. 2007; Novotný at al. 2010]. Machine compressive treatment in malignant lymphoedema is contraindicated!

26. **Compressive bandage**
   External barrier by means of short draft bandage to keep the form of a limb. There is stimulation of lymphdrainage, endogenous fibrinolysis, decreased capillary filtration. Bandage has low rest and high work pressure. The short traction of the bandage forms together with the work of muscles high work pressure and it helps return the extracellular fluid. The pressure of the bandage must not cause cuts on the skin and in this way to make more difficult the flow of lymph. If there are defects on the skin, sterile covering is necessary [Husarovičová and Poláková 2008a; Husarovičová and Poláková 2008b; Kopáčiková at al. 2010; Musilová 2009; Novotný at al. 2010; Potharst and Steckkonig 2009; Pritschow and Schubert 2008; Testa and Nackley 1994].
27. Drainage exercises
Activating the muscle pump we support the flow of lymph from the hit quadrant of the body. We make use of the elements of vessel gymnastics. During the exercise unit we respect the subjective tolerance of the patient to the load and we take into account also the clinic report.
If the patient does not cooperate we force passive exercises.

28. Subcutaneous drainage
Modified manual drainage with external compression has not the same effect with all patients with malignant lymphoedema. If these techniques are not effective we can use the subcutaneous drainage of the edema which leads to the improvement of the quality of the patient’s life [Potharst and Steckkonig 2009; Pritschow and Schubert 2008; Pschyrembel 2002; Stančiak at al. 2009; Testa and Nackley 1994; Topáková and Husarovičová 2010; Zákon č. 574/2004].

Discussion and conclusion
The quality of the patient’s life becomes one of the basic values and aims. It is information which is described to patients according to their subjective perception. One part of it is also the feeling of being healthy which is defined as the lack of signs and symptoms of the disease. During the disease the perception of the quality of life depends on intensity, variety, duration and dynamics of changes of the clinic symptoms. We can foresee the differences in the quality of life in different phases of this disease. They cause the gradual loss of positive thinking which we can be stopped or softened by complex therapeutic management. Personal elements play an important role as e.g. age, sex, characteristic features which influence adaptation to the disease [Testa and Nackley 1994; Topáková and Husarovičová 2010; Zákon č. 574/2004; Závodná 2002].
Malignant lymphoedema is an interdisciplinary problem and it causes not only the social burden but also the costs on the public and private health care are high. Malignant lymphoedema may cause the function deficit. The patient is stigmatized and psychologically burdened. The patient’s family as well as the wider social environment are usually supportive elements. They help a patient adapt to the disease and so they take part in the improvement of the quality of his life. In the opposite case they may even worsen the disease and therefore the
question of attitudes and acceptance of the patient with the disease is important [Husarovičová and Poláková 2008b; Kopáčíková at al. 2010; Novotný at al. 2007; Testa and Nackley 1994; Topáková and Husarovičová 2010]. The patient is aware of the fact that his social status at work is influenced by the disease. The patient loses social contacts, self-assurance but he often meets with the lack of understanding among his closest relatives. The disease causes disability and so the patients lose their previous financial standard. When losing self-sufficiency they may be excluded from the social life. The interest of every developed society should be looking for ways and financial resources to secure the proper living of patients with malignant lymphoedema.

Physiotherapy in oncology demands time, financial resources, personnel and material equipment. The important role is played by education which is realized in specifically prepared setting including the interaction of a doctor, nurse, physiotherapist and the patient. It enables an individual approach and respect of the individualities of a patient as well as it enables to speak about the specific problems [Foldi and Strossenreuther 2007; Hrašnová at al. 2007a; Hrašnová at al. 2007b; Kopáčíková at al. 2010; Potharst and Steckkonig 2009; Testa and Nackley 1994].

Acknowledgement
Technical assistance of Mgr. et Bc. Matúš Albert is kindly reported.

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Zákon č. 574/2004 o zdravotnej starostlivosti, službách súvisiacich s poskytovaním zdravotnej starostlivosti a o zmene a doplnení niektorých zákonov.
THE EFFECT OF CLINICAL PRACTICE SETTING OF NURSING STUDENT ON ACADEMIC MOTIVATION

Neziha Karabulut

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INTRODUCTION

Nursing is a practice based discipline (1). Nursing education is a process that needs to make observations and comments and it requires the acquisition of theoretical knowledge and skills (2, 3).

Clinical education plays a crucial role in undergraduate nursing programmes. Not only does it provide opportunities for students to apply the theory learned in the classroom to the real world of clinical nursing, it is also a socialization process through which students are inducted into the practices, expectations and real-life work environment of the nursing profession (4).

The clinical placement represents an integral part of nursing education curricula, so the place where practical work is done becomes a fundamental part of the students’ global learning experience. It has been stated that students should learn as much in the clinical setting as in the classroom with theory integrated with practice (5, 6).

Academic motivation is defined as the production of the energy which is required for academic studies (7). Motivation is an important key in training field. Individual’s having an efficient training life is closely related to individual’s motivation level. Studies on this topic show that motivation has an important and powerful impact on academic outcomes (7, 8).

The main objective for a nursing lecturer is to program and prepare quality and positive clinical experiences for the students so that they can attain a full professional development and academic success (9).

Therefore, this study was an attempt to find the answers to following the questions;

1. How do nursing students evaluate their clinical learning environment?
2. How do clinical practices affect academic motivation of nursing students?
AIM
This study was carried out to determine the effect of clinical practice setting of nursing students on the academic motivation.

METHOD AND MATERIAL
One hundred and twenty seven nursing students who had training second, third and fourth grade in Giresun University Faculty of Health Sciences were enrolled in this descriptive study. The data were collected during Medical, Surgical, Gynaecology and Psychiatry clinical practices of nursing students in 2010 and 2011 academic period. The ‘Clinical Learning Environment Scale’ and ‘Academic Motivation Scale’ were used in the collection of data.

‘Clinical Learning Environment Scale’ developed by Dunn and Burnett in 1995 (10) and its validity and realibility in a Turkish setting was tested by Sarı in 2001 (11). Cronbach’s alpha value of the scale is 0.82. The scale is 5-point Likert type. 5; strongly agree 4; agree 3; neither agree nor disagree 2; disagree 1, strongly disagree. The highest score is 110 and the lowest score is 22 in this scale. The increase in the total point indicates that students have found clinical learning environment appropriately.

‘Academic Motivation Scale’ developed by Bozanoglu in 2004 in Turkey. Cronbach’s alpha value of the scale is 0.87. The scale is 5-point Likert type. 5; strongly appropriate 4; appropriate 3; undecided 2; unappropriate 1, strongly unappropriate. The highest score is 100 and the lowest score is 20 in the scale. The score increase indicates that academic motivation is higher.

Statistical Package for Social Sciences (SPSS) for windows version 12.0 was used for data entry and analysis. The data were evaluated using the percentage distribution, chi square test and Pearson Correlation. Prior research, written approval from the institution and verbal contents from the students were obtained.
RESULTS
Table 1. Socio-Demographic Characteristics of Nursing Students

<table>
<thead>
<tr>
<th>Age (Mean±SD)</th>
<th>21.2 ± 1.57</th>
</tr>
</thead>
<tbody>
<tr>
<td>n Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>105</td>
</tr>
<tr>
<td>Male</td>
<td>22</td>
</tr>
<tr>
<td>n Class</td>
<td></td>
</tr>
<tr>
<td>Second class</td>
<td>44</td>
</tr>
<tr>
<td>Third class</td>
<td>47</td>
</tr>
<tr>
<td>Fourth class</td>
<td>36</td>
</tr>
<tr>
<td>n Reason of choosing the profession</td>
<td></td>
</tr>
<tr>
<td>Easeness of finding work after graduation</td>
<td>56</td>
</tr>
<tr>
<td>Family wish</td>
<td>13</td>
</tr>
<tr>
<td>Random</td>
<td>11</td>
</tr>
<tr>
<td>Voluntarily</td>
<td>47</td>
</tr>
<tr>
<td>n The expectations of nursing students in the clinical practice*</td>
<td></td>
</tr>
<tr>
<td>Maintaining care and treatment of patients</td>
<td>24</td>
</tr>
<tr>
<td>Best attitudes of health care members</td>
<td>42</td>
</tr>
<tr>
<td>Having good physical conditions in hospitals</td>
<td>45</td>
</tr>
<tr>
<td>Having sufficient material in hospitals</td>
<td>52</td>
</tr>
<tr>
<td>Emphathetic approach of teaching staff</td>
<td>36</td>
</tr>
<tr>
<td>Having research opportunities</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
</tr>
</tbody>
</table>

* Marked more than one option

In the study 36.2% of the students think the purpose of clinical practice that theory learned in the classroom integrated with clinical practice. 50.4% of the students want to use nursing process, 48% individual teaching, 50.4% group teaching, 46.5% observation and 45.7% case presentation in the clinical practices.

Table 2. The comparison of the ‘Clinical Learning Environment Scale’ and ‘Academic Motivation Scale’

<table>
<thead>
<tr>
<th>Clinical Learning Environment Scale</th>
<th>R</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Motivation Scale</td>
<td>0.254</td>
<td></td>
</tr>
</tbody>
</table>

When the ‘Clinical Learning Environment Scale’ and ‘Academic Motivation Scale’ are compared, there is statistically a positive correlation between the scales (r = 0.254, p< 0.05).
As the scores of students' clinical learning environment are higher, their academic motivation scores also increase.

**Table 3. The comparison of the scales between classes**

<table>
<thead>
<tr>
<th></th>
<th>Second Class</th>
<th>Third Class</th>
<th>Fourth Class</th>
<th>Statistical Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean±SD</td>
<td>Mean±SD</td>
<td>Mean±SD</td>
<td></td>
</tr>
<tr>
<td>Clinical Learning Environment Scale</td>
<td>69.9±8.17</td>
<td>66.7±7.81</td>
<td>62.6±9.09</td>
<td>F=7.598 p&lt;0.05</td>
</tr>
<tr>
<td>Academic Motivation Scale</td>
<td>69.0±9.23</td>
<td>70.5±10.74</td>
<td>63.5±12.11</td>
<td>F=4.630 p&lt;0.05</td>
</tr>
</tbody>
</table>

Statistical analysis showed that there is a significant difference statistically between classes (p<0.05). Clinical learning environment scores gradually decrease from the second class to graduation and as the scores that nursing students gained from clinical learning environment decrease, their academic motivation decreases.

**CONCLUSION**

*According to these findings;*

6. Nursing students prefer group teaching as a training method and they want to use the nursing process in clinical practices.

7. At the same time it is observed that as the scores they gained from clinical learning environment increase, their academic motivation also increases.

**PROPOSALS**

It is proposed that physical environment of clinical practice is improved and research opportunities are given to nursing students.
REFERENCES

EVALUATION OF THE PAP SMEAR TEST STATUS OF WOMEN AND OF THE FACTORS AFFECTING THIS STATUS

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Abstract

Introduction: Pap smear has an important value in the early diagnosis of cervical cancer that is a serious problem in women health. This study aimed to determine the status of women having Pap smear test or not and the factors affecting this.

Material and Method: This cross-sectional study was conducted on 301 volunteer sexually active women ever in their lives, aged 18 to 61. These all women were selected from those who applied to Atatürk Univerststy Obstetric and Gynecology Outpatient Clinic between June-August 2010. The data were collected using a questionnaire determining the socio-demographic features and medical status of the women. Data were analyzed by descriptive statistics, frequencies, and Chi-square test.

Results: Sixty six of the 301 women (21.9%) indicated that they heard a Pap smear test and 16.6% of women had a Pap smear test. It was determined that, the number of women who had a Pap smear was increasing with age, duration of marriage, number of birth, knowledge about Pap smear and perception of risk for cervical cancer.

Conclusion: Importance of Pap Smear Test and have it made what purpose and how often explain to women from the gynecological examination by health staff, awareness of women about cervical cancer and is thought to be beneficial in terms of regular pap smears to enroll.

Key Words: Uterine cervical neoplasms; early diagnosis; vaginal smears.

Introduction

Cervical cancer has an important place among women’s cancers. It is estimated that 50% of the cancers of female reproductive system are caused by the cervix. Although cervical cancers are more common among women from the age group of 40-55 years, it has recently begun to be seen in younger women as well. This is associated with the developments in early diagnosis methods.1-3 The prevalence of cervix cancer in the world is gradually decreasing. In 2007, 473,430 new cervix cancer cases were diagnosed in developing countries and 272,238...
died because of this disease. On the other hand, 87,466 new cases were diagnosed and 42,101 deaths were reported in developed countries. In the same year, a total of 555,094 new cases and 309,808 deaths were reported worldwide. The expected rate for 2010 across the world is 12,200 new invasive cervix cancer cases and 4,210 female deaths due to this disease.\textsuperscript{4} The incidence of cervix cancer in Turkey in 2008 was reported as 4.2 in 100,000. The incidence of cervix cancer in Turkey is gradually increasing and available data indicates that cervix cancer comes the third among most common gynaecological cancers after endometrial and ovary cancers with a rate of 4.8 in 100,000.\textsuperscript{1,5}

Cervical cancer is one of the main cancer types in which early diagnosis approach produces successful results. Cervical cancer can be caught in “\textit{insitu}” phase with the help of “\textit{Pap Smear Test}” which is very simple and highly effective in terms of sensitivity-selectivity in the early diagnosis of cervical cancer. When the prognosis of the disease is considered, there is a 10-year period between the “\textit{insitu}” phase and “\textit{invasive}” phase. This period is an important time span for the treatment of cancer. Patients are likely to be cured by the treatment given in this phase. American Cancer Society notes that sexually active women older than 19 years old should take the Pap Smear Test once a year for early diagnosis.\textsuperscript{6}

There are several health behaviours that minimize the risk of cervix cancer, but no behaviour is as effective as taking the Pap Smear Test.\textsuperscript{7,8} It is reported in the literature that cervical cancer death rates tend to decrease in counties where periodic controls and screenings are performed. The number of women, who take the Pap Smear Test which is highly important in early diagnosis, is not at a desired level both around the world and in our country. It is a known fact that pathological changes reach an irreversible state in several diseases as the disease progresses. Therefore, “preventing” comes into prominence instead of treatment in providing cancer control and sustaining health.\textsuperscript{8,9}

Behaviours of taking Pap Smear Test differ according to women’s age, education, race, socio-economic status and cultural characteristics.\textsuperscript{10} It has been reported that the rates of taking Pap Smear Test are lower among elderly, poor and minority groups in developed countries, and a similar study conducted in Turkey demonstrates that this rate increases with the increase in age and education level and in the presence of social insurance.\textsuperscript{11,12} Akyüz et al. (2006) have noted in their study that the rate of taking Pap smear test increases in parallel with the increase in women’s age, duration of marriage, number of births, and level of knowledge about Pap smear.\textsuperscript{8}
The fact that the behaviour of taking Pap smear test differs according to different cultures, groups and socio-demographic characteristics is an important knowledge that will affect the way health personnel provides distinct groups with necessary service. Thus, this study was designed as a descriptive study in order to investigate the status of taking the Pap Smear Test and associated factors among women who applied to Atatürk University, Aziziye Research Hospital, Obstetrics and Gynaecology Polyclinic.

**Material and methods**

The study was conducted as a cross-section study on women between 18-61 years of age who were or had been sexually active and who applied to the Obstetrics and Gynaecology Polyclinic of Atatürk University Süleyman Demirel Medical Centre Aziziye Research Hospital in Erzurum province in Turkey between June 2010 and August 2010 for any reason.

Study sample included 301 women who met the research criteria between the above mentioned dates and who volunteered to participate in the research. Before the initiation of the study, legal permission was received from the hospital and clinic where the data would be collected, and verbal consent was received from the participants after they were informed about the research. Data were collected by the researcher, applying face-to-face interview technique and a questionnaire developed after a relevant literature review. The questionnaire consisted of two sections. The first section included the socio-demographic characteristics of women, and the second section included questions about their knowledge of Pap smear, their status of taking the Pap smear test, and associated factors, as well as their risk perceptions of cervical cancer.

**Statistical analysis**

Data were assessed by SPSS 11.0 packet program. Mean, percentage, and Chi-square tests were used in statistical analysis. Significance level was taken as p< 0.05.

**Findings**

Socio-demographic characteristics of women who participated in the study are summarised in Table 1. The age, marriage age and marriage duration of the women included in the study were $36.26\pm11.48$, $18.20\pm4.08$ and $15.98\pm12.24$, respectively. It was determined that 72.4% of the women were primary school graduates, 54.8% lived in the village, and
92.7% had social insurance. In addition, 40.5% of the women were married for 1-10 years, and 36.2% had 1-2 children (Table 1).

### TABLE 1: Socio-demographic characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-28</td>
<td>89</td>
<td>29.6</td>
</tr>
<tr>
<td>29-39</td>
<td>102</td>
<td>33.9</td>
</tr>
<tr>
<td>40-50</td>
<td>68</td>
<td>22.6</td>
</tr>
<tr>
<td>51-61</td>
<td>42</td>
<td>14.0</td>
</tr>
<tr>
<td>The average age of the women = 36.26±11.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>218</td>
<td>72.4</td>
</tr>
<tr>
<td>Secondary school</td>
<td>31</td>
<td>10.3</td>
</tr>
<tr>
<td>Higher education</td>
<td>33</td>
<td>11.0</td>
</tr>
<tr>
<td>University</td>
<td>19</td>
<td>6.3</td>
</tr>
<tr>
<td>Residential place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>129</td>
<td>42.9</td>
</tr>
<tr>
<td>Town</td>
<td>7</td>
<td>2.3</td>
</tr>
<tr>
<td>Village</td>
<td>165</td>
<td>54.8</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>21</td>
<td>7.0</td>
</tr>
<tr>
<td>No</td>
<td>280</td>
<td>93.0</td>
</tr>
<tr>
<td>Social insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insured</td>
<td>279</td>
<td>92.7</td>
</tr>
<tr>
<td>Uninsured</td>
<td>22</td>
<td>7.3</td>
</tr>
<tr>
<td>Economic status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income &gt; expenditure</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Income &lt; expenditure</td>
<td>103</td>
<td>34.2</td>
</tr>
<tr>
<td>Income = expenditure</td>
<td>198</td>
<td>65.8</td>
</tr>
<tr>
<td>Duration of marriage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10</td>
<td>122</td>
<td>40.5</td>
</tr>
<tr>
<td>11-20</td>
<td>81</td>
<td>26.9</td>
</tr>
<tr>
<td>21-30</td>
<td>52</td>
<td>17.3</td>
</tr>
<tr>
<td>31-40</td>
<td>37</td>
<td>12.3</td>
</tr>
<tr>
<td>41-50</td>
<td>9</td>
<td>3.0</td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>27</td>
<td>9.0</td>
</tr>
<tr>
<td>1-2</td>
<td>109</td>
<td>36.2</td>
</tr>
<tr>
<td>3-4</td>
<td>70</td>
<td>23.3</td>
</tr>
<tr>
<td>&gt; 4</td>
<td>95</td>
<td>31.6</td>
</tr>
</tbody>
</table>

As demonstrated in Table 2, the rate of taking the Pap smear test is higher in women who are in the age group of 40-50 years, who are university graduates, who are employed, who are married for 21-30 years, and who give birth 3-4 times. A statistically significant relationship was found between the status of taking Pap Smear Test and women’s age, education level, employment status and parity (p<0.05).
TABLE 2: Women’s status of taking Pap Smear Test according to their socio-demographic characteristics.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Taken Pap smear test n=50(%)*</th>
<th>Not taken Pap smear test n=251(%)*</th>
<th>χ²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-28</td>
<td>8(9.0)</td>
<td>81(91.0)</td>
<td>9.476</td>
<td>0.024</td>
</tr>
<tr>
<td>29-39</td>
<td>19(18.6)</td>
<td>83(81.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-50</td>
<td>18(26.5)</td>
<td>50(73.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51-61</td>
<td>5(11.9)</td>
<td>37(88.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>26(11.9)</td>
<td>192(88.1)</td>
<td>19.306</td>
<td>0.000</td>
</tr>
<tr>
<td>Secondary school</td>
<td>6(19.4)</td>
<td>25(80.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher education</td>
<td>9(27.3)</td>
<td>24(72.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>9(47.4)</td>
<td>10(52.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>7(33.3)</td>
<td>14(66.7)</td>
<td>4.557</td>
<td>0.033</td>
</tr>
<tr>
<td>No</td>
<td>43(15.4)</td>
<td>237(84.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration of marriage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10</td>
<td>14(11.5)</td>
<td>108(88.5)</td>
<td>8.819</td>
<td>0.066</td>
</tr>
<tr>
<td>11-20</td>
<td>14(17.3)</td>
<td>67(82.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>15(29.4)</td>
<td>36(70.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td>5(13.5)</td>
<td>32(86.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41-50</td>
<td>2(22.2)</td>
<td>7(77.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>3(11.5)</td>
<td>23(88.5)</td>
<td>13.081</td>
<td>0.004</td>
</tr>
<tr>
<td>1-2</td>
<td>17(15.6)</td>
<td>92(84.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-4</td>
<td>21(30)</td>
<td>49(70)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;4</td>
<td>9(9.5)</td>
<td>86(90.5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Row percentage is given.

The women included in the research were asked to state their opinion about having medical examination when they encounter any gynaecological problem, and the relationship between these findings and the status of taking the Pap Smear Test was evaluated. As illustrated in Table 3, it was determined that Pap Smear Test was taken by 27.5% of the women who had gynaecological examination when they had any complaints and by 11.9% of the women who saw a doctor only when their complaints became unbearable, and a significant relationship was found between women’s having gynaecological examination and taking the Pap Smear Test (p<0.001).

TABLE 3: Women’s status of taking the Pap Smear Test according to their status of having gynaecological examination

<table>
<thead>
<tr>
<th>Getting gynaecological examination</th>
<th>Taken Pap smear test n=50(%)*</th>
<th>Not taken Pap smear test n=251(%)*</th>
<th>χ²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>-I get medical examination when my complaints become unbearable - I get medical examination when I have any complaint -I get medical examination on a regular basis</td>
<td>28(11.9)</td>
<td>207(88.1)</td>
<td>19.559</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>11(27.5)</td>
<td>29(72.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11(42.3)</td>
<td>15(57.7)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Row percentage is given.
Table 4 demonstrates that Pap smear test was taken by 57.6% of the women who were aware of the test and by 5.1% of the women who were never aware of the test. There was a statistically significant difference between the two groups in terms of taking the pap smear test (p<0.001).

It was observed that women failed to define the group that should take the Pap Smear Test, and that the rate of taking the test was high among those who were aware that married women should take the test and low among those who did not have such knowledge. The rate of knowledge about the use of Pap Smear Test for gynaecological cancer diagnosis was high, while the rate of knowledge about the required frequency of taking the test was low. A significant difference was found between the women in terms of taking the Pap Smear Test regarding their level of knowledge (p<0.001). When we examined the number of Pap Smear Test taken by women who had taken the test before, we found that 54% of the women had taken the test before only once (Table 4).

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Had taken Pap smear test before n=50(%)*</th>
<th>Had never taken Pap smear test before n=251(%)*</th>
<th>( \chi^2 )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge about the Pap smear test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heard before</td>
<td>38(57.6)</td>
<td>28(42.4)</td>
<td>102.411</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Never heard before</td>
<td>12(5.1)</td>
<td>223(94.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Defining the group that should take the Pap smear test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All women</td>
<td>10(5.9)</td>
<td>159(94.1)</td>
<td>132.712</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Married women</td>
<td>34(75.6)</td>
<td>11(24.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not know</td>
<td>6(6.9)</td>
<td>81(93.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge about the type of disease for which Pap smear test is taken</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knows</td>
<td>31(70.5)</td>
<td>13(29.5)</td>
<td>107.854</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Does not know</td>
<td>19(7.4)</td>
<td>238(92.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge about the frequency that Pap smear test should be taken</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knows</td>
<td>21(84.0)</td>
<td>4(16.0)</td>
<td>89.384</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Does not know</td>
<td>29(10.5)</td>
<td>247(89.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of Pap Smear Tests previously taken n =50</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>27(54.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-4</td>
<td>17(34.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 and more</td>
<td>6(12.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Raw percentage is given.
As illustrated in Table 5, Pap smear test was taken by approximately half of the women who considered themselves in the risky group for cervix cancer, 12.8% of the women who did not consider themselves in the risky group, and 15.8% of the women who did not know whether they were in the risky group. A significant relationship was found between the women’s seeing themselves in the risky group and taking the Pap Smear Test ($p<0.001$). According to the women who considered themselves in the risky group, being a woman and being married were the factors causing this risk (87.5%) (Table 5).

**TABLE 5**: Women’s classification of taking the Pap Smear Test according to their risk perception about cervix cancer

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Had taken Pap smear test before n=50(%)*</th>
<th>Had never taken Pap smear test before n=251(%)*</th>
<th>$\chi^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Women’s risk perception about cervix cancer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Considers herself in the risky group</td>
<td>13(52)</td>
<td>12(48)</td>
<td>24.945</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Does not consider herself in the risky group</td>
<td>28(12.8)</td>
<td>191(87.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not know whether she is in the risky group or not</td>
<td>9(15.8)</td>
<td>48(84.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reasons for considering themselves in the risky group (n=24)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence of cancer in the immediate environment</td>
<td>2(8.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple abortions</td>
<td>1(4.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being a woman and being married</td>
<td>21(87.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Row percentage is given.

**Discussion**

Cervix cancer, which is the second most prevalent gynaecological cancer type worldwide and the first in developing countries, has a very high rate of mortality unless it is diagnosed in the early stage.\(^1\) There are several studies on the cervix cancer and screening of cervix cancer which is one of the most common cancer types in the world. Different rates of taking Pap smear test was reported in various studies; for example, 20% in Kenya, 40.3% in Jordan, 69% in Spain, and 93% in the United States of America.\(^13\text{-}16\) In the studies conducted in Turkey, this rate was reported as 51.32% by Akyüz et. al., 19.4% by Ak et. al., 20% by Kalyoncu et. al., 32.8% by Dönmez, 28.9% by Gürel et. al., and 16.2% by Karaca.\(^8\text{-}12,17\text{-}20\) It was determined in our research that 50 of 301 women (16.6%) included in the study had taken Pap Smear Test before, while 251 women (83.4%) had never taken the test before. The rates of taking the Pap Smear Test among women in Turkey according to their socio-demographic characteristics have been investigated in various studies conducted by Turkish researchers. For example, Akyüz et al. noted that the rate of taking the Pap smear test was highest among
women who were from the age group of 30-39 years, who were secondary school graduates, who were unemployed, who were married for 11-20 years and who gave birth four times and more; Kalyoncu et al. reported that this rate increased in women older than 35 years and with longer marriage period. On the other hand, Ak et al. reported this rate to be low among women with low education level and who lived in rural areas. Karaca indicated that having social insurance and the availability of gynaecological examination in university hospitals had a positive effect on the rates of hearing about and taking the smear test. Kalyoncu et al., age average was higher among women who took Pap smear test, and these women had more gynaecological examinations, lived in the city centre, had higher socio-economic level as well as higher level of knowledge about pap smear test and higher education level. In our study, the rate of taking pap smear test was observed to be higher among women who were from the age group of 40-50 years, who were university graduates, who were employed, who were married for 21-30 years, and who gave birth 3-4 times (Table 2). A statistically significant relationship was determined between status of taking pap smear test and women’s age, education level, occupation status and number of births given (p<0.05). The increase in the rate of having obstetric or gynaecological examinations and therefore taking the pap smear test can be associated with the increase in women’ age, marriage duration and number of births given. In our research, the rate of taking Pap Smear Test was observed to be higher among women with higher level of education. Many studies conducted on this subject reveal similar findings supporting our research. In some studies, unlike our research, it was reported that the rate of taking Pap Smear Test decreased despite the increase in education level, and janitors comprised the group with the highest rate (68.9%) while this rate was the lowest in doctors (18.9%). This marked decrease in the rate of taking pap smear test among groups with higher education level was associated with higher awareness about the risk factors in cervix cancer, the use of barrier methods, and commitment to virginity and to monogamy in active sex life. Similarly, Akyüz et. al. reported a lower rate of taking pap smear test in those with higher education level, as well as a higher average of marriage age and shorter marriage period among those with higher education level. In the Turkish society, since individuals begin active sex life generally with marriage, the rate of having obstetric or gynaecological examination increases with the increase in marriage duration, and lower rates of taking pap smear test among women with higher education level are associated with the fact that these women get married at an advanced age.
It was established that women’s opinions affecting the their frequency of having gynaecological examination was also effective in taking the Pap Smear Test, and a significant relationship was found between having gynaecological examination and taking Pap Smear Test (p<0.001) (Table 3). The research conducted by Akyüz et. al. reveals findings similar to ours. Behbakht et. al., also similar to our study, reported that the rate of taking Pap Smear Test was lower in women who found it difficult to see a doctor compared to women who found it convenient. Mete stated that women avoided gynaecological examinations due to several reasons, such as lack of knowledge, disregard, embarrassment, and fear of being diagnosed with a disease. According to Gürel et. al., neglect with a rate of 87% was the primary reason among women for not taking the Pap Smear Test. It is important that physicians and nurses know that women’s thoughts about gynaecological examination affect their awareness about having gynaecological examination and taking the test, so that they can adopt the appropriate approach in informing and educating women on this subject.

With the increase in the education level of women who participated in the study, a parallel increase was observed in the rates of hearing about the Pap Smear Test (12.8% in primary school level, 73.7% in university level) and taking the Pap smear test (11.9% in primary school level, 47.4% in university level). There was a significant relationship between women’s education level and the rate of hearing about and taking the Pap Smear Test (p<0.001). In parallel with our study, Ak et. al. reported an increase in the rate of hearing about the Pap smear test among women with the increase their education level (38.5% in primary school level, 61.5% in higher education level). Kalyoncu et. al. established a positive relationship between education level and rates of hearing about the test, and reported a rate of 72.92% regarding women who heard about and took the Pap smear test. Our research also revealed a significant difference between women who had heard about the Pap smear test before and those who had never heard about the test (p<0.001) (Table 4). When women’s status of taking Pap smear test was examined in terms of their level of knowledge about the test, the rate of taking the test was lower among women who did not know who performed the test, which disease the test was performed for, and how often the test should be taken, and the difference was found to be statistically significant (p<0.001) (Table 4). Other studies also report an increased rate of taking the test among women who has knowledge about cervix cancer and Pap Smear Test.
Regarding the Pap smear test for the early diagnosis of cervical cancer, the American Cancer Society (ACS) has announced that women should take Pap smear test 3 years after their first sexual experience or at the age of 21 regardless of whether they are sexually active or not; once a year if they are 30 years of age and older; every 3 years in case the results of the 3 successive tests have been negative; and that women who are 70 years of age and older, whose Pap tests in the last 10 years have not revealed abnormal results, and who has three or more normal Pap test results should be excluded from the cervical cancer screening program. Similarly, the American College of Obstetricians and Gynaecologist (ACOG) announced that all women who have been sexually active in any period of their lives or are still sexually active, or who have reached the age of 21 should have annual pelvic examination and take Pap Smear Test, and women who are older than 30 years of age and who have normal pelvic examination and Pap smear results for 3 successive years may be monitored up at longer intervals.15,26

However, it was observed in our study that women failed to define the group that should that Pap smear test and the frequency at which the test should be taken. This finding indicates that women are not adequately informed by the health personnel about the significance of the issue. In addition, although 16.6% of the women (n=50) had previously taken Pap smear test, 54% of these women (n=27) had this test only once, indicating that the obtained results were far from reaching the goals. Because the smear test taken only once is not sufficient for the early diagnosis of cervix cancer.

Among women who had heard about Pap Smear Test, 56% heard it from health institutions, 30% from the media and 14% from their friends/neighbours. The rate of those who heard about Pap Smear Test mostly from health institutions was 60% among those who took the test. Accordingly, it may be concluded that women change their behaviour according to their source of information, and are more likely to reflect the information obtained from health institutions to their lives. In a study conducted in Kenya, 87% of the participants heard about the test from a health institution, 7% from a friend and 3% from the media; and the rate of hearing about the test from a health institution was reported as 57% by Ak et. al. and 82% by Kalyoncu et. al.13,17,12

It was detected that the Pap Smear Test was taken by 52% of the women who considered themselves in the risky group for cervix cancer and 84.2% of the majority of those who were not sure whether they were included in the risky group did not take Pap Smear Test,
and a significant relationship was found between women’s status taking the Pap Smear Test and whether they considered themselves in the risky group (p<0.001) (Table 5). In other studies, parallel to our research, it was established that women who considered themselves in the risky population for cervix cancer had higher rates of taking the Pap Smear Test.8,13,21,22

Conclusion

Consequently, it was determined that women’s decisions and awareness about taking Pap Smear Test was affected by their opinions of gynaecological examination, socio-demographic characteristics, knowledge about Pap smear test, and risk perceptions about cervix cancer; yet, despite all these factors, the significance of Pap Smear Test was not fully acknowledged among women.

In line with the obtained findings, it may be suggested that Pap smear test, as in all developed countries, should be performed as part of the annual pelvic examination 3 years after the first sexual experience in our country, as well. Furthermore, health personnel should provide all women with more extensive knowledge about Pap smear and cervix cancer, risk factors, early diagnosis and screening; and if necessary, women should be encouraged to participate in education programs. Also, women who are admitted for gynaecological examination should be informed by the health personnel about the objective and significance of Pap Smear Test and how often it should be performed; and health education programs on this subject should become widespread and screening programs should appear more often in the media, for example by inserting these slots into the commercial breaks of prime time news programs and TV series and an effective screening program should be developed. These activities will be highly effective in providing women with awareness about cervix cancer and encouraging them to take regular Pap Smear Tests.

References


NURSES´ OPINIONS ON THEIR OWN MORTALITY IN THE CONTEXT OF SOCIAL ASPECT OF THE PROFESSION OF A NURSE IN PALLIATIVE NURSING

Helena Kisvetrová

Department of Nursing, Faculty of Health Sciences, Palacky University in Olomouc, Czech Republic

Abstract

Introduction: Nurses in hospices are within the bounds of their profession confronted with dying and death of other people, which leads to awakening to their own mortality and worries about their own death. Carrying out social dimension of palliative care assumes that nurses taking care of terminally ill will get to grips with their own mortality.

Aim of the study: To find subjective opinions of nurses in hospices in the Czech Republic on their own mortality. To define further nurses’ problems associated with the care of the patient who experiences death anxiety, and to map nurses’ interest in the problems of negative emotions of a terminally ill person.

Material and methods: group of respondents: nurses in inpatient hospices in the CR; half-structured questionnaire in the phase of pre-test.

Results: significant difference \( p=0,001 \) between the opinions of nurses-believers and atheists on reconciliation with their own mortality. However, there was not proved any relationship between the reconciliation of a nurse with her own mortality and the problems related to the care of the patient who suffers death anxiety \( p=0,219 \). 99,1% nurses are interested in the problems of negative emotions, but, on the other hand, there was no statistically significant association between the interest in education in this field and the length of nurses’ practice \( p = 0,591 \).

Conclusions: The attitude to the life finality and own mortality participates in the ability of nurses to care of and communicate with the patients in terminal phase of their lives and also with their families.

Key words: nurse, mortality, hospice, dying, death anxiety
Introduction
Incomprehension of a social aspect of the profession of a nurse in palliative care can lead as far as to social isolation of the terminally ill [Stevens et al., 2009]. This is a consequence of nurses’ fear of death and awakening to their own mortality, which inevitably happens if the nurse often meets with dying and terminally ill people [Kastenbaum, 2000; Yalom, 2008]. This fact also determines the nurses’ readiness to discuss the problems of death with patients and their families [Deffner, Bell, 2005], their escape to other activities, psychosomatic problems, emotional flatness or even burnout syndrome. Hospice philosophy gets down to death as to the basic part of life, and open communication about the problems connected with the fact of forthcoming death is one of the factors characterizing the social dimension of the profession of a nurse while accompanying dying people in hospices. Therefore the nurses working in the facilities providing hospice care are supposed to be reconciled with their own mortality.

Material and methods
There was used a method of deliberate choice to define the basic group of respondents which consisted of general nurses working in inpatient hospices in the Czech Republic at the time of research investigation (n = 102). A half of them (49 %) was at the age category up to 35 and nearly three quarters of nurses (70,6 %) had been working in a hospice for up to 5 years. As for education, there predominated high school education (60,8 %) and 18,6 % of nurses had university education. Two thirds of nurses (68,8 %) stated that they regard themselves as believers. The research was made in the period of January / February 2010 in inpatient hospices of the Czech Republic which were operating at that time [UZIS CR, 2010]. Empirical data were gathered by a quantitative research method - a half-structured questionnaire prepared by the author. The questionnaire was used for gathering data in the phase of pre-test. Empirical data collection was arranged by I. Hodrová under the author’s leadership.

Results and Discussion
A – nurses’ opinions on the reconciliation with their own mortality
The results showed that 92.2% of general nurses assume they are reconciled with their own mortality. The nurses who indicated themselves as believers answered positively in 98.6%, those regarding themselves as atheists in 78.1%. Fisher’s exact test showed this difference as statistically important (p = 0.001). Similarly also the comparative study realized among Czech nurses working in inpatient hospices and facilities for long-term ill patients shows that the person for whom the existence has a spiritual dimension understands better the sense of suffering and the finity of his own existence [Kupka, Řehan, 2008]. The impact of religiosity on reconciliation with nurses’ own mortality was also confirmed by the study concerning the level of death anxiety of the personnel taking care of terminally ill people in the U.S. and Lithuania [Roff et al., 2006]. Lithuanian respondents showed higher level of anxiety for the process of dying and fear of the unknown after death, which the authors regarded as the consequence of a violent repression of religiosity by the totalitarian regime in the countries of the former Soviet Union. Gómez [Gómez et al., 2007], too, confirms the importance of reconciliation with nurses’ own mortality because death anxiety can prevent them from social interactions with the patients in the terminal phase of their life. It may lead to the nurses’ growing stress and burnout. The fact that in hospice facilities there work nurses who nearly in 70% indicated themselves as believers distinguishes these facilities from the spectrum of other health and social institutions in the Czech Republic, where the composition of personnel rather copies the state of religiosity of the present Czech society. According to the latest statistical data 59.9% of inhabitants of the Czech Republic regard themselves as atheists [www.czso.cz]. Also the fact that a half of nurses (49%) working in hospices in the Czech Republic is at the age up to 35, and 41.2% of nurses work in these facilities more than 4 years, contradicts the myth of the Czech public that in hospices there work rather older nurses and there is big fluctuation of workers as a consequence of their frequent contact with death. On the contrary, the research confirms that young nurses up to the age of 35 are interested in palliative care in spirit of hospice philosophy. This may be influenced by the fact that they got their professional education only after the fall of the totalitarian regime when on the educational programmes of medical professionals are also put psycho-social dimensions of the care of terminally ill people. We can suppose that the interest in hospice care and post-totalitarian system of professional education in nursing influences as well nurses’ opinions on their own mortality. This reality then retroactively forms the attitude of nurses to their own
care of the dying, and at the same time it confirms correctly chosen personnel strategy of the management concerning the choice of staff in particular hospice facilities.

94 nurses (92,2 %) who stated they were reconciled with their own mortality further answered the question about what helped them to reconcile with their own mortality. Their responses, to be made clear, were categorized into five groups (see pict. 1). On the first places there appeared the items: work in a hospice (33 %) and faith (26,6 %). Foreign studies as well say that nurses in hospices try less to avoid thoughts about death and show lower levels of death anxiety, burnout and stress in comparison with nurses in emergency wards [Payne et al., 1998].

Pict. 1 – Factors influencing nurses´ reconciliation with their own mortality

**Factors influencing nurses´ reconciliation with their own mortality**

- no answer: 2,10%
- other: 6,40%
- life experience: 11,70%
- awareness of the reality of mortality: 20,20%
- faith: 26,60%
- work in a hospice: 33,00%

**B – Problems of nurses taking care of patients who experience death anxiety**

78,4 % of nurses from hospices in the Czech Republic stated that every day they met with the patients who suffered from the problems of death anxiety. The question whether it is difficult for the nurses to take care of the patients suffering from death anxiety was answered by 96,1 % respondents that they did not take this as a problem. Only one respondent did not say anything to this question, and four nurses (3,9 %) admitted that they took that care as a problem. Those four nurses did not state spirituality as a source of help for coping with stress connected with care of the dying. Two of them stated that taking care of the patients suffering
from death anxiety was for them personally psychologically difficult and they had a problem with the care of such patients on one hand, but, on the other hand it was at the same time very enriching experience for them. Among defence mechanisms which help to cope with demanding care of the terminally ill and dying according to the nurses belong: relaxing, good interpersonal relationships at their workplace and separating private life from the problems connected with their profession. Nevertheless, there was not proved any statistically important link between the fact whether nurses are reconciled with their own mortality and the problems related to the care of the patient suffering from death anxiety (p = 0.219).

C – Nurses’ interest in the problems of death anxiety

Most nurses (99.1%) took interest in information concerning the problems of the phenomenon of death anxiety. One third (34.3%) of nurses, however, stated that they were not informed about the actions oriented on these problems. A quarter of nurses (25.5%) goes to the seminars on palliative problems and a quarter of nurses gets necessary information by studying specialized literature. 87.3% of nurses think that experience and information concerning negative emotions of the terminally ill gained by further education can be used within the bounds of social dimension of palliative nursing. But there was not proved any statistically important link between the interest in education and length of work (p = 0.591). The fact that getting information on the problems of death anxiety is very important for the nurses who take care of the terminally ill is also approved by Dunn [Dunn et al., 2005]. He recommends creating educational programmes within the bounds of continual education which will teach nurses effective coping strategies as prevention of death anxiety and will enable them to identify barriers that may negatively influence the care of terminally ill people.

Conclusions

The attitude to the finity of life and their own mortality determines the ability of nurses to take care of and communicate with the patients in terminal phase of their lives and with their families. This is the reason why it is so important to study the attitudes of nurses in hospice facilities to the finity of life [Rolland, Kallman, 2009]. The results of the study showed significant differencies between the opinions of nurses-believers and nurses-atheists on reconciliation with their own mortality. However, no link was proved between nurses’ reconciliation with their own mortality and the problems related to the care of a patient suffering from death anxiety. Most nurses took interest in the problems of negative emotions
within the bounds of their practice. But no link was proved between the interest in education and the length of practice in a hospice.

Comprising and acceptance death into life enrich life of a man. This enables him to free himself from killing narrow-mindedness and to live more purposefully and more earnestly. Even though death is a primary source of a man’s anxiety and he tries to defend himself against it by means of a whole series of personal reactions, full awareness of and reconciliation with his own finity may be a radical impulse of a personal change [Kutnohorská, 2008; Lento, Stein, 2009]. As far as a nurse taking care of the terminally ill in hospice facilities accepts these facts, she is reconciliated with her own finity and has an opinion that the meaning of a man’s existence is also influenced by his transcendental character, in the context of a social dimension of a profession of a nurse she can emphatically accompany a patient and so create a social event from death when the patient won’t feel lonely and abandoned in the final phase of his life.

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Parental knowledge and attitudes towards prevention of hepatitis in children

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ABSTRACT

Background: We surveyed attitudes of parents of children on the prevention of viral hepatitis A, the level of awareness and knowledge of parents about the possibilities of preventing VH-A, prevention by vaccination and rates of utilization of children vaccination by parents.

File and methods: The research sample consisted of 100 respondents randomly selected. We used the questionnaire method. The results were processed statistically. Processed results are shown in tables and graphs. The tables give the number of responses (n) and percentage (%) by respondent’s education.

Results: We found that most parents are well informed about the importance of preventive vaccination and possible prevention of VH-A vaccine and as most of them also indicate that their child will be vaccinated against VH-A.

Conclusion: We suggest to develop and provide to parents of underage children information material (not promotional!) on VH-A, which includes not only basic information about disease and possible preventive vaccination, but also a brief statement on the current epidemiological situation in the occurrence of VH-A, on high-risk groups in terms of preventing disease, and the importance of hygiene in the prevention of this disease, so that each parent could consider the risks of disease for VH-A and the need of prevention VH-A in children by vaccination, increase the expertise of nurses and knowledge of nurses about their role and importance within prevention of infectious diseases.

Key words: Viral hepatitis - Viral hepatitis A - Prevention
Introduction

Viral infections of the liver represent one of the most serious global health problems. This fact is caused both by a huge number of people who are infected with viruses and by seriousness of the consequences that may in some cases arise after a longer time duration of infection. Their seriousness is mainly in the fact that some types of viral hepatitis (VH) can lead to chronic infections and may become the cause of the development of chronic liver diseases [Covisa 2006; Husa 2005; Husa 2006]. Despite the fact that in recent years the presence of VH-A has the downwards trend in Slovakia, the disease cannot be considered as a disease belonging to the past. As a result of low long-term disease of VH-A increased the percentage of receptive population, which under certain conditions allows creation of smaller and also larger epidemic [Regional Public Health: Annual Report, 2005]. The highest occurrence of hepatitis A is among preschool and school aged children. Considering the children in a group cannot be fully supervised, the risk among them is greater [Lacko at al. 2007; Lukáš at al. 2005; Lukáš at al. 2007]. In children, viral hepatitis has an easier course than in adults - often very easily and invisibly - without any clinical symptoms and children easily transmit the virus into their families, where after the transmission in adult the disease takes place nearly always with clear signs of a more serious form.

VIRAL HEPATITIS

They form a group of diseases caused by primary hepatotropic viruses that cause in the liver parenchyma inflammation and necrotic changes, which in typical cases reflect in acute illness with icterus. Among primary hepatotropic viruses now include A, B, C, D, E, in recent years in this group of activators were added viruses of hepatitis G, TT and SEN [Pásztorová 2004]. Viral hepatitis has substantially the same clinical picture they differ significantly only in length of the incubation period.
The clinical picture depends on the type of infectious dose and the patient's age. The typical icteric course of acute viral hepatitis at which there is present the yellow color of the conjunctiva and skin, is well known, is usually present only in 20-40% of cases. Many more cases will proceed without typical symptoms or take place without any reflections [Lacko 2007]. During the icteric form of the disease is distinguished preicteric, icteric and posticteric stage.

Course of the disease may be acute or chronic form. Only some viral infections can pass from acute to chronic stage [Strehárová at al. 2007]. Currently, there's six known viruses that cause viral hepatitis and in practice are marked by abbreviations, which come from their English names: HAV, HBV, HCV, HDV, HEV, HGV. In practical terms the most important is dividing of viral hepatitis by the method of transmission of disease generator [Šišková 2006]. Enteral transmitted viral hepatitis have relatively short incubation period and the infections do not pass into chronic. Parenteral transmitted VH are more or less likely to pass into a chronic disease and can cause serious consequences of the disease - liver cirrhosis and hepatocellular carcinoma [Schréter 2001; Urbánek 2002].

<table>
<thead>
<tr>
<th>Type of hepatitis</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>Picornaviridae</td>
<td>Hepadnaviridae</td>
<td>Flaviviridae</td>
<td>Satelite virus</td>
<td>Non classified</td>
</tr>
<tr>
<td>Genus</td>
<td>Heparnavirus</td>
<td>Hepadnavirus</td>
<td>Hepacivirus</td>
<td>Deltavirus</td>
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<tr>
<td>Type of viral NA</td>
<td>RNA</td>
<td>DNA</td>
<td>RNA</td>
<td>RNA</td>
<td>RNA</td>
</tr>
<tr>
<td>Incubation period in days</td>
<td>15-45</td>
<td>30-180</td>
<td>15-150</td>
<td>30-180</td>
<td>15-60</td>
</tr>
<tr>
<td>Transmission</td>
<td>Faecalooral</td>
<td>Perinatal</td>
<td>Sexual?</td>
<td>Sexual</td>
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<td>Family?</td>
<td>Family</td>
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<tr>
<td>Viraemia</td>
<td>Temporary</td>
<td>Temporary</td>
<td>Temporary</td>
<td>Chronic</td>
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<td></td>
<td>2-4 weeks</td>
<td>Chronic</td>
<td>Chronic</td>
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Table 1. Characteristics of different types of hepatitis [Schréter 2002]
Viral hepatitis A

The infection is endemic and occurs in all parts of the world. In recent years, has occurrence of VHA in Slovakia downward trend, but occurrence of disease in the Roma settlements in the population with very low hygienic standards of living and social standards continues to affect the level of disease in this diagnosis [Stančiak and Břendová 2010]. Hepatitis A is a disease mainly of pre-school and school aged children. The highest age-specific disease has long been recorded in a group of 1-4 year olds and 5-9 year olds. Especially for small children is very often asymptomatic form of infection and so easily and undetected transmit the disease from the group of children to their own family or among other children with whom they play. With rising age, however, is the disease course often more serious and convalescence takes longer [Stančiak and Břendová 2010]. In elderly patients, disease may end up in death. We can bring hepatitis A from a foreign holiday, especially from countries with lower hygiene standards.

The transmission of hepatitis A occurs most frequently in areas with low hygienic standards. Outbreaks or areas with a higher occurrence of the disease are abroad and also in Slovakia. In Slovakia last year most cases occurred in the district of Spišská Nová Ves and in eastern Slovakia overall. Hepatitis A is widespread worldwide while the highest occurrence reaches in Africa, South America, South Asia [Šišková 2006; Urbánek 2002].

<table>
<thead>
<tr>
<th>Enteral transmitted</th>
<th>Parenteral transmitted</th>
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</thead>
<tbody>
<tr>
<td>VH-A</td>
<td>VH-B</td>
</tr>
<tr>
<td>VH-E</td>
<td>VH-C</td>
</tr>
<tr>
<td></td>
<td>VH-D</td>
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<td></td>
<td>VH-G</td>
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Table 2. Distribution of viral hepatitis by the method of transmission of infection [Husa 2006]
Prevention and epidemiological measures for VH-A

Prevention and epidemiological measures are divided into preventive and repressive: 

**preventive:** a purposeful avoidance of the possibility of contagion and contact with the sick, raising personal and total hygiene, ensuring the supply of uncontaminated drinking water and protecting food from contamination (to follow the health examinations of staff in school canteens, cafeterias...); active and passive immunization of persons who were in contact with sick on VH-A, people who leave for areas with endemic occurrence of VH-A and also immunization of persons at risk of exposure to VH-A. These are health care workers and people working with waste water. The risk groups are also homosexuals, hemophiliacs, drug addicts, promiscuous persons or persons who have been in contact with the sick [Stančiak at al. 2007; Stančiak at al. 2010].

**repressive:** early diagnosis and isolation of the sick at Department of Infectious Diseases, mandatory reporting of disease, anti-epidemiological measures in the outbreak [Husa 2006].

Very important group in terms of prevention of viral hepatitis A are children. Only if good hygiene habits, diet, physical activity, but also maintenance and environmental protection and epidemiological regulations may favorably affect the diseaseness of viral hepatitis A and to avoid minor or major epidemics [Ehrmann and Schneiderka 2006; Sandtnerová 2004; Zadák 2008].

For **active immunization** against infection of VH-A virus is currently available vaccine called Havrix and vaccine Avax. Vaccine Havrix junior can be used since one year old child. After the first dose the immunity rises against VH-A in 2-4 weeks and it is expected that antibodies persist for at least one year in the most vaccinated. The second dose, important for long-term protection, is applied between 6 to 12 months after the first dose and provides protection against VH-A for at least 10 years [Husa 2005; Husa 2006; Lacko 2007]. Vaccination against VH-A belongs to the group of vaccinations to own request, however, vaccines may in some cases also indicate, and is fully paid by health insurance, and that is at the decision of the regional epidemiologist from the Regional Public Health Authority of increased health supervision (§ 4 of the Act of National Council of Slovak Republic no. 272/1994 Coll. on the protection of human health as amended) for people in direct contact with sick with viral hepatitis A, health workers in the pediatric, gastroenterology and infectious workplaces, employees in the collection of waste materials, solid and liquid waste landfills and
canalization, among members of special units of the Armed Forces of the Slovak Republic, the Prison and Court Guard, Rapid Intervention units, special drug squads, Civil Protection regiments, fire brigades, traffic police, criminal police, escort units. Fully covered single dose of vaccine is also for children after completing one year of life in areas with very low socio-hygienic standards and in the exceptional events such as flooding [Government Regulation no 337 2006]. Available is also a combined vaccine against VH-A and VH-B - Twinrix, since the mandatory vaccination of children against VH-B is current only since 1998 and current adolescents is not protected against viral hepatitis B [Lacko 2007; Schréter 2001; Urbánek 2002].

The main objectives of prevention include providing information and raising the level of knowledge on hepatitis prevention. Considering the continuous need for systematic action in prevention, the most appropriate method of care is the educational process. According to Závodná is the educational process defined as a certain form of transmission of particular information, which takes place in a certain environment between nurse and parents of the children. Educational environment is adapted to the needs of target group of parents, in order to increase the efficiency of the educational process [Závodná 2005].

Objective of the thesis is to identify attitudes of parents of children on the prevention of viral hepatitis A as follows:

29. level of awareness of VH-A among parents of children under school age,
30. knowledge of parents about the possibility of VH-A prevention by vaccination
31. utilization rate of vaccination by parents.

MATERIAL AND METHODS

Characteristics of researched sample and methods

The empirical study had the nature of applied research in kindergartens in Trnava. The researched sample consisted of 100 respondents. Selection of respondents was random. The basic criterion for selection of respondents was chosen:
- parents who have children in pre-school age,
- parents whose child attends kindergarten.
The main method for obtaining information, we selected multi-item questionnaire as the best method for obtaining views and opinions of more respondents on given issue. The questionnaire was anonymous. In addition to identifying information contained open, closed and semi-closed questions. Respondents had a choice among various options, or alternatively even fill in.

The survey was executed from April to December 2008. The questionnaire was handed out to 120 respondents. Returned was 100 questionnaires (80 %).

The survey results were statistically evaluated, processed into tables and illustrated graphically.

RESULTS

The largest group of 50 respondents is parents in the age group of 30-40 years old, 48 parents reported the age of 20-30 years old. Least parents (2) were in the age group over 40 years old. 56 parents reported secondary education, 34 parents in the file had university education and primary education had 10 parents (Chart 1).

![Chart 1. Distribution of respondents by age and education]
Only 22 respondents of total reported two possible ways of transmission of VH-A. Most, 31.1 % percent of respondents think that VH-A is transmitted by blood, 29.9 % reported transmission from person to person, 16.4 % are aware of the possible transmission of VH-A by diet, 6.4 % fear of transmission by inhalation and 16.3 % do not know any of the ways of transmission of VH-A. Only 45.8 % of respondents know at least one way of transmission of VH-A.

![Chart 2](Attachment:chart2.png)

**Chart 2.** Knowledge on ways of transfer of VH-A

Even in this item the respondents had an opportunity to indicate more than one symptom, which is not among the symptoms of VH-A disease. 58.2 % of the total number of responses correctly excluded from the symptoms of VH-A skin rash over the whole body and 12 % excessive thirst. Among other symptoms typical for VH-A 14.9 % does not associate VH-A with itchy skin, 7.5 % with muscle pain, 4.5 % to 3 % with reluctance and with yellowing of the skin. All respondents considered fatigue as a symptom of VH-A. Most of the respondents answered correctly (Chart 3).
63.3 % of the total number of responses correctly points out supporting immunity by appropriate physical load, none of the respondents considered an increased supply of sugar to be appropriate to support the immunity of the child, 14.5 % does not pay attention to the problem, but even the remaining 21.8 % of the responses cannot be considered as the right opinion to enhancing the immunity of the child because large doses of synthetic vitamins cannot replace the stay and exercise in the fresh air (Chart 4).

We can state that 92 % of respondents is aware of the connection between respecting hygienic standards and infection prevention. Only 8 % expressed the opinion that respecting basic hygiene is not important in the prevention of infectious diseases, and they were respondents with secondary (4 %) and university education (4 %) (Chart 5).
94 % out of questioned respondents is aware of the possibilities of preventing VH-A by vaccination, 8 % do not have knowledge of this possibility and 2 % of respondents deny given statement. In the group of university educated respondents, all identified the correct answer (Chart 6).

58 % expressed the view that certainly will have their child vaccinated against VH-A, 24 % of respondents is not convinced of the necessity of such vaccination and 18 % will have their
child vaccinated with respect to the financial costs associated with vaccination. None of the respondents stated the possibility that their child will not be vaccinated (Chart 7).

**Chart 7.** Attitude of parents to the prevention of VH-A by vaccination

Considering the fact that the actual expenses of the child's vaccination against VH-A are around 4000 SKK, we can state that 24 % of questioned respondents will have their child vaccinated, because 20 % accepts any expenses and 4 % accept expenses up to 4000 SKK. 48 % of respondents is willing to accept the amount of 1000 SKK and 10 % up to 2000 SKK which means they have no information about fees for vaccination against VH-A. The real expenses are willing to accept especially respondents with university education (Chart 8).

**Chart 8.** Acceptation of financial costs
94% of respondents had knowledge that preventive vaccination is used to protect humans against infectious diseases, 6% were unable to comment given issue. The possibility of preventing VH-A by vaccination has information 90% of respondents, 8% do not know whether vaccination is one of the possibilities of prevention VH-A and 2% do not consider vaccination as the possibility of prevention of VH-A. 58% of respondents indicate that they will surely have their child vaccinated against VH-A in time, 18% will have vaccinated their child with respect to the financial costs, 24% of respondents are not convinced of the need for vaccination against VH-A, none of the respondents indicate that will not have vaccinated their child against VH-A (Chart 9).

![Chart 9. Use of Vaccination](image)

60% of surveyed respondents were educated on protection against infectious disease by doctor, 22% was not informed yet at all and alarming is that only 18% of respondents were educated about the prevention against the infectious disease by nurse (Chart 10).

![Chart 10. Role of Health Professionals in the Prevention of Infectious Diseases](image)
DISCUSSION

The survey that was carried out to identify awareness of target group - parents of children pre-school age who are the highest risk group in prevention of VH-A (poor standards of hygiene, frequent stay in a team, persistent bad habits - sucking fingers, inserting various objects into the mouth, frequent contact with hands of other children - at play, walk, ...) we can state that the awareness of parents about VH-A is satisfactory, although the area of awareness about the possibilities of transmission of VH-A is not at the required level. Survey concluded that the proportion of health workers in education and enlightenment in the prevention of infectious diseases greatly stays behind the mass-medias or other sources of information (internet). Nurses play only a minimal role in informing the population on infectious diseases and their prevention. Reserves can be found not only at the level of primary care, where the priority role for nurse is to educate parents on the possible risks of infection, methods of protection, the possibility of vaccination, but also departments nurses should actively include into the nursing plans not only preventive measures against direct threat of the patient, but also client education to health safety, the prevention of transmittable diseases, proper lifestyle and sometimes also to good hygiene habits.

Positively evaluated is also the knowledge of parents about the importance of keeping the hygiene and right lifestyle, but strange is the fact that only a minority of respondents apply this knowledge in practice. This fact forces us to continue to appeal on the impact of nutrition on health, disease prevention and population diseaseness. By active health education, personal example, we have to try to influence the eating habits of parents and children, to instill to parents the impact and importance of physical activity for children in relation to the immune response of the organism, highlight the negative consequences of childhood obesity, inactivity, negligent hygiene.

Most parents are well informed about the importance of preventive vaccination and possible prevention of VH-A by vaccination and as most of them also indicate that their child will be vaccinated against VH-A (58 % definitely, 18 % with respect to financial costs). We propose to develop and provide parents of under-aged children with information material (not publicity!) about VH-A, which includes not only basic information about diseases and possible preventive vaccination, but also a brief indication about the current epidemiological situation in the occurrence of VH-A, about high-risk groups in terms of prevention of disease
and the importance of hygiene in the prevention of this disease, so that each parent could consider the risk of VH-A and the need for prevention of VH-A in children by vaccination, improve professional knowledge of nurses, as well as knowledge of nurses about their roles and the importance of prevention infectious diseases.

We suggest to orient activities of nurses on eliminating or at least reducing the deficit of knowledge not only about the ways of transmission of VH-A, but globally about the possibilities of prevention of infectious diseases of children by active participation of nurses in the education of the population in ambulatory care (especially in pediatric clinics) by using the available and effective methods, such as informal conversation, dialogue aimed at finding the areas of knowledge deficit, underpin poor standard of hygiene and lifestyle of children.

CONCLUSION

Viral hepatitis type A is a disease that in most cases does not endanger human life and especially does not enter into a chronic disease, and even leaves a lifelong immunity. It is a disease which occurrence in our population over the past five years rapidly dropped down and many people consider it a disease belonging to the past [Závodná 2005]. By a layman view we could also agree, but the opposite is true. Jaundice would not mean a great danger to people if it's viruses were not so resistant and infectious and at the same time. Just due to consequences of long-term low diseaseness of VH-A significantly increased percentage of the susceptible population which under certain conditions, greatly eases the generation of epidemics.

In parallel with to highlight the constantly ongoing risks of disease we wanted to remind the fact that VH-A is a disease that is preventable and highlight the importance of health education within prevention and influence of social environment to the formation of this infectious disease.

Many people consider names of life and health as equivalent. They forget that it is not the same, although nothing is so close and personal to a human as their own health.
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PRACTICAL TRAINING OF STUDENTS OF GENERAL NURSING OR PRACTICAL TRAINING IS WHERE IT ALL BEGINS

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Abstract
Professional nursing education must comply with the requirements of the European Union. In practice this means that a large part of the training is spent in clinical workplaces. To ensure quality and effectiveness of such practical training of future professionals, the training must be well thought out. Not only academics but also professional practitioners are involved in the education whether by leading students in a hospital (clinical) setting or by leading the students by "real example". Academic staff is responsible for implementation of such an educational programme which enables a graduate to practice the medical profession. Professional practitioners pass on their experience and prepare students in a practical sense. During the practical training, students are under the influence of various factors that may affect the final quality of learning. The paper presents partial results of a survey which focused on the factors influencing the course of practical training of students of general nursing. In conclusion, recommendations are designed to improve the whole concept of professional training practice.

Key words
Student, general nurse, practical training, influencing factors.

Material and methods
A training practice of students of general nursing is characterised by taking place out of university grounds, in clinical settings and usually without the direct presence of a university teacher. During the practical training the student is integrated into normal work tasks in the conditions and environment of their future profession, and is thus given an
opportunity to confront their own theoretical readiness with the practical reality (Vašutová, 2002).

During such practical training, the desirable skills that students acquired in the laboratory-like conditions of school are complemented, deepened and strengthened. These skills will be applied when providing nursing care. The purpose of practical training is to enable the students to practice communication and practical skills but also to equip students with a set of competencies that are achievable for them. Perhaps the most important competence for practice is responsibility which is defined as follows: "Responsibility is a personality feature which is manifested in an individual's ability to decide in a particular situation, in accordance with their conscience and beliefs but also by being prepared to bear the consequences of such a decision" (Krátka, 2010).

Perhaps the most influential factor on responsibility development in non physician health care students is embodied in practical training. The objectives of practical training of nursing subjects can be best formulated if they are derived from practice, and if they develop the required practical skills of students (Cichá, Dorková, Zacharová, 2009, p. 12). To ensure that all objectives are met, it is necessary that the process involves students, nurses, other health professionals but also patients who can not be and who we do not wish to exclude from the process of practical training of future nurses. The educational process is thus entered in by many factors, which ultimately influence the whole process of practice.

The paper presents partial results of a survey, which focused on factors influencing the course of professional practical training of students of general nursing.

The aim was to determine which factors influence students during their training and how the students are affected by other persons involved, i.e. nurses, patients and other medical personnel.

**Characteristics of respondents**

The group of respondents consisted of 56 students of the 2nd and 3rd year of a Nursing degree program, course General Nurse, at Tomas Bata University in Zlín. Most of them, i.e. 50 respondents (89.29%) are secondary school graduates of a medical specialisation. 46 respondents graduated as a Medical Assistant, 3 of the respondents graduated in General Nursing and one respondent studied at a Medical Lyceum. The remaining 6 respondents completed a grammar school or other secondary technical school.
Immediately after their graduation 50 respondents (89.29%) entered the current university, 4 respondents (7.14%) came from a job and the remaining 2 respondents (3.57%) did not specify what preceded their present study at the university. None of the respondents holds a "Certificate of medical profession without professional supervision in the field of General Nursing" (registration).

**Methods**

Before the survey itself, which was conducted by a questionnaire, a diary keeping method had been used. Information obtained through the respondents’ diaries were used to formulate the questionnaire items.

The gathered results were arranged into tables in Microsoft Office Word 2007 with values given in absolute and relative frequencies. Responses to open questions were divided into categories.

**Results**

Due to the limited range of the paper only certain parts of the survey which ran from 10/2010 – 12/2010 are being presented. The actual survey had been preceded by a pre-survey, i.e. keeping diaries. Diaries were used to form target questionnaire items. The respondents regularly recorded their observations and experiences in the course of their practical training (in the winter semester of the academic year 2010/2011). Notes from the diaries were used to create questions in the questionnaire.

The survey revealed that during their practical training the students were influenced by the following factors: type of service (for 30 respondents, which is 53.57%, the most popular type of service was day care/shift), fear of the staff and their attitude (43 respondents, which is 76.79 %), fear of the new environment (35 respondents, which is 62.5%), but also fear of manipulation with equipment (28 respondents, which is 50%). Almost half of the respondents were concerned by the lack of appropriate aids (26 respondents, which is 46.43%), followed by the lack of time for nursing tasks (18 respondents, which is 32.14%), feeling of uselessness, being ridiculed by the staff etc. Less than a quarter of the respondents expressed concern that they might harm the patient. Students were clearly discouraged by distrust, whether by nurses, other health professionals or patients.
The source of respondents’ uncertainty in training were mostly nurses, who chastised the students unnecessarily, did not have enough time for them, were rather haughty over them, provided them with inconsistent information, ridiculed them, were reluctant or even unpleasant, impatient, assigned many tasks simultaneously, and so on. The students were also highly sensitive to bad behaviour of nurses to patients, which evoked much criticism of the nurses. 41 respondents (73.22%) claimed that praise was clearly an encouraging factor, along with a welcoming approach of nurses and other medical personnel, then success of their own work, gratitude shown by the nurses or the patients, and what is interesting, also plenty of activities so that the students felt useful. The students’ testimony proved that the nurses who supervised them during their practical training were mostly responsible, which was manifested primarily by allowing the students to work according to the right principles, i.e. as they were taught at school. Still, 12 respondents did not consider the supervising nurses as their professional role model.

According to the survey, most respondents said that all the nurses, not just the ones in charge of them (the supervisor or the mentor) attended to them. This answer has been given by 19 respondents (33.93%). A striking fact is that 3 respondents (5.36%) reported that no one was in charge of them and that the tasks during the practice were assigned to them by all the attending medical staff, including the auxiliary (orderly) staff (18 respondents, which is 32.14%). This type of practical training is completely inadequate. Only 8 respondents (14.29%) responded that they had one mentor or a nurse in charge.

Nurses greatly influenced the students by how they behaved, whether or not they paid enough attention to them and whether they were willing to give advice and so on. A certain effect of other students was reported by 28 respondents (50%). More than half of the respondents (total 36, which is 64.28%) expressed a wish to undergo practical training with at least one other student. The influence of other students were both positive, i.e. mutual support, not being alone in the new environment, but majority of the respondents also spoke of the negative influence, mainly having less work and a lack of tasks to perform when more students were present.

Patients influenced the students by praise for example, or by expressing gratitude, which encouraged the students, however 30 respondents (53.57%) reported that some patients refused treatment provided by a student. The students were aware that it was the patient’s right, but it still made them feel uneasy and they perceived it negatively.
Most respondents considered the practical training as the best way to link theory with practice and the length of practical training was reported as adequate. A small portion of respondents, a total of 5 (8.93%) considered the practical training a waste of time, the same number of respondents considered it unnecessary. 17 respondents (30.19%) felt welcome in the workplace but 12 respondents (21.70%) felt that nurses were indifferent towards them, the same number of respondents stated that they had the impression that they even bothered the staff.

**Discussion**

Training practices are an integral part of nursing studies and allow students to confront their theoretical knowledge gained so far, with reality. The survey above demonstrates that students intensely perceive the relationships nurse – student, nurse - nurse, nurse – patient, where in all cases the nurse can be a source of encouragement and support, but at the same time a source of uncertainty. Practical training was an important experience for most students, which may be reflected in their attitude to their future profession. It is therefore essential not to underestimate the training environment. If we want to propose effective measures they must be based primarily on the real conditions of health care facilities (hospitals). Most hospitals in the Czech Republic are currently facing a shortage of nurses who are thus being faced with ever higher requirements. If they are to supervise students as a part of their workload, suitable conditions must be created. On one hand, supervising students "stalls" nurses from their work (all activities take longer), on the other hand, students can be of a significant help with proper guidance. It is up to the nurses themselves to realise the importance of their role in training their future colleagues and to be able to pass on their experience without unnecessary antipathy to students.

The survey results do not bring any extraordinary discoveries, but there are certain interesting findings and certain warnings which might make it possible to realise what situations students encounter in their practical training, what is it that affects them and can then be projected even onto a patient who becomes an inseparable part of the whole educational process of future nurses.

The exploratory survey in hand has enabled us to draw the following recommendations: select an appropriate training workplace and provide professional leadership of the student by an experienced nurse, who would present a real life role model; to
ensure that the student is given instructions always by one nurse only who has supervision over him/her; create optimal conditions for training practice and ensure adequate number of students; integrate the student into the multidisciplinary team in a nursing care unit; gradually shift responsibility to the student, so that they are able to propose solutions; provide support and assistance in difficult situations; link theory with practice; prefer learning by demonstration; encourage student to make questions; set such tasks that the student is capable of doing (to experience success); enable the student to practice nursing interventions without time stress; motivate the students; support self-confidence and competence to interventions; ensure compliance with standardised procedures; conduct a thorough inspection of all student’s activities and provide the student with feedback; lead the student to evaluate their own work (such as thinking through the consequences and considering the risks); teach the student to justify their work and decisions; discuss problem situations; evaluate the student fairly (with kind justice); not to tolerate late arrivals, early departures or absence in the workplace; encourage the student’s responsibility for his/her own decisions and actions (Krátká, 2010).

It is equally important to acquaint patients with the presence of students in nursing care units and explain to them what the student presence means to them. Patients must be familiar with the fact that the practice is supervised, builds on theoretical training and that the students are bound by confidentiality as any other health care professionals; that the students must comply with applicable procedures and work under the supervision of experienced nurses; that performing of certain procedures may take longer than when performed by a skilled nurse and so on. Each patient must be able to decide freely whether they will consent to a student taking care of them and that they may withdraw their consent at any time without giving a reason.

When following the recommendations above, there is mutual trust between the nurse, the patient and the student, which is the essence of a quality nursing care.

Conclusions

The need for good and well-planned cooperation between educational institutions and medical facilities, where students’ practical training takes place, is undeniable. The students acquire certain patterns of behaviour and assume a model based on nurses who can adequately support activities that are desirable, and conversely inhibit inappropriate actions and behaviour. We cannot do without the help of professional nurses when educating future nurses. The authors are aware that the survey results cannot be generalised but believe that
professionalisation of training practice of students is the first step to their adaptation in the clinical workplace, which will manifest itself in their performance and behaviour towards patients. The paper provides only few factors of influence, but the survey helps to understand the feelings of students who are trying to navigate a future role in health care. Their situation is even more strenuous by knowing that their behaviour or decisions can cause irreparable damage even on the life of man. It is necessary to develop their potential, hand in hand with the development of their responsibility. Not so that the responsibility would limit them but so that it would become an important component of their competence and imminent part of their professional image, because professional training is the first step for them to understand their role - the role of a nurse.

References

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OBESITY- NURSING PROBLEM

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Introduction
The contribution presents information and knowledge about childhood obesity. Obesity in
children is one of the most serious public health problems, which developed world is facing,
but it is growing in developing countries as well. Obesity spreads among children of all ages
(The European Economic and Social Committee, 2005). No wonder that obesity is the fastest
expanding epidemic at present. It is the second most frequently developed disease after dental
caries (Žofčáková, Kuchta, 2005). Kovács, et al. (2008) state that up to 96 % of cases is
obesity in children caused by unhealthy dietary habits, physical inactivity in combination with
genetic factors. In 1997, the World Health Organization declared morbid obesity a disease and
in 2005 WHO classed obesity as a disease. It has even its code in the International
classification of diseases – E66. The European Economic and Social Committee (2005) state,
that obesity is „a Gordian knot“ which blended psychological, sociological, economic,
cultural aspects and behaviour of individuals “. The primary mechanism of developing
overweight is an imbalance of intake and energy expenditure. Reduction of physical activity
reducing and sedentary lifestyle contribute to this problem (Tebeľáková, Bašková, 2010).
Quantitative overnutrition and qualitative unbalanced overnutrition and inadequate nutrition
regime influence its development. Obesity is not the result of high absolute energy intake, but
regular intake that exceeds the energy needs (Freemark, 2010). Obesity influences
unfavourably physical, social and psychical child’s development and presents unwanted
„handicap“for future social life. Obese children are clumsy, immobile, unattractive, and oft
unhappy, they tend to be socially isolated, tend to be addicted, depressed, and anxious. Obese
children are at a risk of developing cardiovascular changes: arteriosclerosis of heart and brain
vessels, arterial hypertension. From pulmonary complications may occur Pickwick syndrome,
from endocrine and metabolic complications the impairment of glucose tolerance, diabetes
mellitus, hyperlipoproteinemia, hyperuriemia, hyperinsulinemia, insulin resistance.
Occurrence of cholelithiasis, pancreatitis, or hepatic steatosis is not rare. Obesity exposes
children to backache, flat feet, intertrigo (Kúseková, 2007).
Our objective is to determine the prevalence of overweight and obesity among children of primary school age, assess eating habits and compare the mean value of weight, height, BMI among children of primary schools. This problem solving was influenced by the information of The Statistical Office of the EU stating that more than 14 million of school-age children are overweight and 3 million of them are obese. The number increases annually in 400,000 overweight children, 85,000 from them are obese.

**Material and methods**
On the basis of literary sources and surveys carried out in this problem, we set the main research objective: *To find out the overweight and obesity incidence in selected children of primary school age in a city and a rural community.* After the analysis of questionnaire results we found and compared eating habits of primary school children and their BMI percentile. We have expected that there is a statistically significant difference in BMI mean values in pupils living in the city and in the rural community. We have assessed, whether the place of residence influences eating habits of pupils.

**Research sample**
The basic research sample consisted of 129 selected pupils of primary schools in a city and rural community. The first research sample comprised of 74 pupils of primary school in the town Rajec, 23 pupils attending class 7, 28 pupils attending class 8 and 23 pupils attending class 9. The second sample comprised of 55 pupils of primary school in the rural community Kamenná Poruba, 28 pupils attending class 7, 14 pupils attending class 8 and 13 pupils attending class 9.

**Methods**
The main research method was a structured interview. Biometric method was used for investigating pupils’ weight and height. Based on these data we calculated BMI and identified the percentile. Statistical tests were carried out by Student’s t-test for two independent samplings and chi-square test of independence for contingency table with standardized contingency coefficient with significance $\alpha = 0.05$. With the method of comparison we compared the research findings with results reached by Babinská, et al. (2007), Fraštiová (2010) and Pagurková (2010).

**Results**
To determine the obesity incidence in the sample, we assessed weight, height and BMI of primary school pupils. BMI values are shown in Fig. 1.
BMI values between 3rd and 10th percentile defined as underweight had 5.4% of pupils in the town and 7.3% in the rural community. Values between 5th and 75th percentile defined as a normal weight had 70.4% of pupils in the town and 76.4% in the rural community. Values between 90th and 97th percentile defined as overweight had 12.1% pupils in the town and 14.5% in the rural community. Values over 97th percentile defined as obesity had 12.1% pupils in the town and 1.8% in the rural community. The first file contained the BMI values of pupils living in the town. The frequency of this file was \( n_1 = 74 \) and the BMI mean value \( \bar{x}_1 = 21.5 \). The file contained BMI values of pupils living in rural community. Its number was \( n_2 = 55 \) and the BMI mean value \( \bar{x}_2 = 20.3 \). After testing the null hypothesis we found that \( t \approx 2.02 \).

The calculated value was compared with the critical value of the test criterion for selected significance level 0.05 and relevant number of degree of freedom (\( t_{0.05}(n_1 + n_2 - 2) = 1.978819508 \approx 1.98 \)). Because the calculated value was higher than the critical value, the null hypothesis had to be rejected. It means that we accepted the alternative hypothesis; there are statistically significant differences between the BMI mean value of pupils living in the town and the BMI mean value of pupils living in the rural community.

Tab. 1: Eating habits

<table>
<thead>
<tr>
<th></th>
<th>Pupils from the town</th>
<th>Pupils from the rural community</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>They eat more regularly at the weekend than during the week.</td>
<td>15</td>
<td>20.27</td>
<td>16</td>
</tr>
<tr>
<td>At the weekend they eat like during the week</td>
<td>23</td>
<td>31.09</td>
<td>9</td>
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</table>
They eat sometimes more regularly at the weekend than during the week.

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<tbody>
<tr>
<td></td>
<td>25</td>
<td>33,78</td>
<td>10</td>
<td>18,18</td>
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</table>

They eat regularly every day.

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<tbody>
<tr>
<td></td>
<td>11</td>
<td>14,86</td>
<td>20</td>
<td>36,37</td>
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Total

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<tbody>
<tr>
<td></td>
<td>74</td>
<td>100</td>
<td>55</td>
<td>100</td>
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</table>

When assessing eating habits of pupils, we found that only 24.04% of pupils eat regularly. Nearly the same relative frequency was recorded in number of pupils boarding more regularly at the weekend than during the week. 24.8% of pupils boarded alike as during the week, but many times irregularly. 27.31% of pupils boarded more regularly at the weekend than during the week. We investigated, whether there is a relation between two random variables „residence“ and „regular meals“. We found that there is a relation between the variables „residence“ and „regular meals“. The calculated value for a standard contingency coefficient $C_{norm} = 0.423$ showed, that the relation between two variables is close to a certain extent.

**Discussion**

To achieve the objectives we have carried out research in pupils attending grades 7-9 of primary school in the town Rajec and primary school in the rural community Kamenná Poruba. The research was carried out on relatively small research sample that statistically does not present a representative sample. Questionnaire findings and biometric measurements we have compared with the study results of Babinská, et al. (2007), Fraštiová (2010) a Pagurková (2010). We have recorded differences in food consumption of less than five times daily depending on the place of residence. It was recorded in 50% of pupils living in the town and up to 74.6% of pupils living in the rural community. The optimal daily food intake had 41.9% of pupils from the town and 26.1% of pupils from the rural community. 60.5% of pupils participating in the research consumed food less than five times daily, similarly than 55% in the survey of Pagurková (2010). The food consumption of more than seven times a day we found a decrease of 26.3% in favour of our research sample. Preferring bakery products was nearly at the same level. The greatest differences we saw in the consumption of wholemeal products and pastries in favour of primary school in the town. In comparison with the study of Babinská, et al. (2007) our research showed the preference of white pastries. There was an increase in its consumption in 6.1% in favour of our sample. The positive finding was that the consumption of wholemeal pastries was higher in 0.8% in our research. Daily intake of fluids, including soups, in both primary schools was balanced and can be assessed as satisfactory. In
the study of Babinská, et al. (2007) 86.9% of children reported fluid intake of more than 1 l and 13.1% less than 1 l. Compared with our research we have seen an increase in fluid intake over 1 l in 5.3% and less than 1 l in 5.3%. A positive finding was the result showing that preferred form of drink among students in our study was water or mineral water up to 54.3%, as in research carried out by Fraštiová (2010) in 31%. We can say that with age the number of students who do not have breakfast was increasing proportionally. Babinská, et al (2007) in their study further indicates that significantly more subjects who do not have breakfast were from the rural community. In our research we came to the opposite findings; more students having any breakfast were from the town. The comparison of Babinská study recorded 0.4% difference in eating fast food several times a week in favor of our research sample. Even bigger difference in 9.6% in our study was in eating fast food 1-3 times a week. Using the analysis of biometric measurements, we found that the average weight, height and BMI in primary school classes were significantly different in favor of pupils living in the rural community. The comparison of mean values between the sexes, the biggest differences in weight and BMI in the 7th, 8th and 9th year were to the detriment of boys living in the town.

**Conclusion**

We found that nutrition and physical activity are closely linked with the negative results of overweight and obesity incidence among primary school pupils. Most of primary school pupils in the town and rural community had unhealthy eating habits. Many of them consumed food more than 7 times a day, they preferred sweetened drinks especially Coke, Fanta and Sprite, they did not have breakfast and dinner, they did not consume fruits and vegetables, they consumed large amounts of sweets a day, and they ate irregularly and preferred white bread to whole grain. Obesity with BMI value above the 97th percentile we found up to one eighth of primary school pupils in the town and five tenth in the rural community. The results of the research show that it is necessary to appeal to nurses and other healthcare professionals to be more actively engaged in the National program for preventing obesity and with an active participation to contribute to the prevention of obesity in childhood.

**Summary**

In the WHO European region every third child is overweight and rising of the annual rate of childhood obesity is up to ten times faster than it was in 1970. According to the results of the Public Health Authority of the Slovak Republic (PHA SR) from 2001 12.5% of boys of the total population had BMI above the overweight and 7.8% were obese (Hlavatá, Kovács,
In our research sample we found that a quarter of primary school pupils in the town and in rural community were suffering from overweight and obesity. Most of pupils ate unhealthy and preferred sedentary leisure time activities to physical activity. Therefore, we recommend improving diet regime and quality of nutrition, and in schools it is suggested to introduce a nutritionally balanced snack, increase the number of hours of physical education, supplement the lessons focused on healthy lifestyle, limit sedentary activities, and promote active sport in children.

References


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POSTGRADUATE EDUCATION FOR NURSES IN HEALING CHRONIC WOUNDS

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Introduction
Evaluation, nursing and documentation of chronic wounds are the most frequent acts performed by general nurses. To provide this service really expertly, they need to have not only adequate knowledge but also skills to assess and treat defects.

Nursing care, not only for patients with chronic wounds, is provided by healthcare professionals (HP) on a scale stipulated by Act 105/2011 Coll. and a special decree – Public Notice 55/2011 Coll. which stipulates activities of healthcare professionals and other nonmedical professionals. This public notice took effect as of March 14, 2011 terminating effectiveness of Public Notice 424/2004 Coll. and connecting Public Notice 401/2006 Coll. was canceled.

Education of healthcare professionals eligible to perform the profession without professional supervision after acquiring professional competence takes place in two forms in the Czech Republic: a) as qualification study that takes place in higher nursing schools and colleges in accordance with the respective directives of the EU, b) in the form of lifelong education by which healthcare professionals renew, increase, deepen and complement knowledge, skills and competence in the respective field in accordance with the development of the field and the latest scientific data.

Goal of work
Submit current knowledge of the possibilities of postgraduate study for general nurses in the area of nonhealing wounds.

Material and methods
Critical study of available source literature, performing background search, analyzing and interpreting source literature. Background search performed for the period of 2001-2011.
Background search took place in the medvik.cz, medline.com, tribune.cz, solen.cz, geum.org, PubMed.com, google.books.com, google.cz, scholar.google.cz, nconzo.cz databases, and many others. Due to the specificity of the chosen problem, not enough information was found in the selected databases, so the remaining information was complemented from Czech professional periodicals and other sources: Sestra v diabetologii (Nurse in Diabetology) ISSN 1801-2809, Pomocník diabetologa (Diabetologist’s Aid) ISBN 978-80-86 256-74-0, Hojení ran (Healing Wounds) ISSN 1802-6400, Florence ISSN 1801-464X, Sestra (Nurse) ISSN 1210-0404, and others.

Results

Education of nurses in terms of treating nonhealing wounds should be an inseparable part of professional preparation on all levels of education (starting with pre-graduate education all the way to postgraduate). The requirement for effective preparation for caring for patients with a chronic (newly nonhealing) wound ensues from normal work content stipulated by regulations: Act 105/2011 Coll. and Public notice 55/2011 Coll. Individual educational activities within lifelong education (specialization education, certified innovation courses, specialized exchange programs at accredited workplaces, participation in conferences, publication and scientific activities, studying connecting college programs and individual study of specialized publications) are stipulated by Public Notice 423/2004 Coll., which stipulates a credit system for issuing a certificate to perform the job of healthcare professionals without direct leadership or professional supervision by healthcare professionals (Public Notice 321/2008 Coll., which amended Public Notice 423/2004 Coll., took effect as of August 29, 2008). For amendment see Public Notice 4/2010 Coll.

So far, nurses were compelled to acquire at least 40 attested credits in the registration period. According to new Act 105/2011 Coll., § 69, if a healthcare professional applies for revalidation of his/her certificate 60 days before its expiration at the latest, and submits the necessary documents, it is possible to extend validity of the certificate by another 10 years (Act 105/2011 Coll.).

Public Notice 55/2011 Coll. dealing with activities of healthcare professionals and other specialized workers mentions under § 4, paragraph 1, letter g) that: “Nurses assess and treat defects of skin integrity, chronic wounds and stomias” and paragraph 3, letter d) specifically mentions that “General nurses carry out the treatment of acute and surgical wounds

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including the treatment of drains”. § 55–67 in the fourth part of this public notice, which also comprises “Nurses for care in surgical fields” (§ 61), mentions that after acquiring specialized competence they may perform activities regarding adult patients according to § 54, and also may perform – without specialized supervision and a physician’s indication – consulting and dispensary activities focused on the problems of illness requiring surgical treatment, indicate healthcare means, assess and treat chronic wounds and recommend suitable dressing materials.

They acquire special competence by participating in certified courses – in the NCO NZO (the National Center of Nursing and Nonmedical Healthcare Fields) in Brno, the IPVZ (the Institute of Clinical and Experimental Medicine) in Prague, the Department of Nursing with the Medical Faculty of Masaryk University (KO LF MU) Brno, and Nemocnice Podlesí, a.s. (Podlesí Hospital, Inc.), Třinec. In spite of this, competences regarding etiology, complications scale and other characteristics defining wounds have not been solved yet and nurses face this problem in on a daily basis, just like in case of nurses within home care (Kudlová, 2010).

**Postgraduate education of nurses in the field of chronic wounds**

There are several possibilities of postgraduate study in the field of nonhealing wounds in the Czech Republic. Competences of postgraduate events participants, however, are not yet clearly defined and approved. General nurses can attend accredited certified courses organized by the Health Department of the Czech Republic, specialization education focused on different fields (a module focused on treating wounds), courses led by companies distributing healthcare aids, constitutional seminars, e-learning education, etc.

32. **Certified courses on treating chronic wounds** Currently, there are 3 accredited qualification courses offered to general nurses in the Czech Republic which are focused on treating chronic wounds and 1 certified course focused on podiatry. Requirements for being admitted to such courses are: a three-year practice, professional qualification, and a certificate to perform the job without professional supervision. After completing the first three courses a graduate acquires specialized qualification to provide preventative, diagnostic, treatment and nursing care to persons with chronic wounds in accordance with Public Notice 424/2004 Coll. § 4 (Stryja, Pokorná, 2011, p. 47—48). The podiatry course graduates get, among other things, a
special competence to treat plantar hyperkeratosis in diabetic persons, and for basic cleaning of plantar ulcerations in diabetic persons (see Fig. 1 and 2). Among the first three courses are:

1) A course organized by NCO NZO in Brno: “Specific nursing care for chronic wounds and defects”. Teaching is divided between theoretical and practical parts. The theoretical part is provided by NCO NZO, the practical one by Faculty Hospital Brno Bohunice and Pardubice Hospital. Graduates receive 48 credits and specialized competence to determine suitable procedures of local treatment of chronic wounds and defects, including choosing dressing materials and coordination of changes in procedures in the treatment of chronic wounds and defects.

2) A course organized by KO LF MU Brno: “Course of specific nursing care for chronic wounds and defects”. Teaching includes information on modern diagnostic procedures – e.g. TIME management, Focus charting® documentation, NIC and NOC classification, etc. (Pokorná, 2009, p. 52). The course has received support from the operating program of the E.U. and the participants’ costs are covered from subsidies.

3) A course organized by Nemocnice Podlesí, a.s. (Podlesí Hospital, Inc.), Třinec: “A course on complex care for wounds and skin defects”. The course has 150 lessons (80 lessons of theory and 70 lessons of practice), the graduates receive 90 credits, the course takes place in the workplace of accredited Nemocnice Podlesí a.s. The course has received support from the operating program of the E.U. and the participants’ costs are covered from subsidies (Stryja, Pokorná, 2011, p. 47—48). A fourth course from the field of podiatry is

4) an IKEM course in Prague: “Certified course for general nurses in podiatry”.

It includes a theoretical module (4 days) and a practical module (3 days) with practice (placement) at a podiatric emergency ward. The theoretical and practical parts are based on a document “Diabetic Foot Care Education Programme for training of certified Diabetic Foot Care Assistants (Jirkovská, 2010, p. 64—65) – see Fig. 1 and 2.

33. Pharmaceutical firms that produce and distribute dressing materials or nutrition which support healing of wounds. Companies organizing such events are Aura, Cetrex, Hartmann-Rico, ConvaTec, Coloplast, or Nutricia. These events are focused on nurses, but also on diabethologists from bed wards, emergency wards and home care. Education is held in the form of specialized seminars, workshops, but also in
comprehensive practical exercises held directly at workplaces, where besides printed materials and spoken comments on new means also practical demonstrations are shown. Technical level is guaranteed by the lecturers – specialists on treatment of chronic wounds. Special attention is paid to shin ulcers, decubituses, diabetic ulcers, and malignant wounds.

34. **Education centers/institutions** hold specialized courses and seminars for nurses: e.g. NCO NZO Brno, IKEM Prague, VFN Prague – Geriatric clinic, FN Brno-Bohunice, Rajhrad, Aesculap Academie, the Podiatric Section of ČDS (Czech Diabethologic Association), ČAS (Czech Association of Nurses). E.g. teaching programs under specialized guarantee of Aeskulap Academy – one-day courses named *Care for wounds for consultants and specialized nurses* and *Care for wounds including large laparoscopic defects*. The Center of Vessel and Mini-invasive Surgery with Nemocnice Podlesí a.s. organizes a one-day course “*Repetitorium of complex care for chronic wounds*”, which is followed upon by a two-day course named “*Repetitorium of complex care for chronic wounds*”, which is more focused on practical demonstrations of working with therapeutic materials and discussions. Both courses are designated both for nurses and physicians from all fields (Repetitorium of complex chronic wound management, 2010). A new thing in the field of seminars in 2011 are “traveling” seminars named “The diabetic foot syndrome” organized by the Podiatric Section of ČDS in medical centers that are interested in these events. The goal of these seminars is to improve care for patients with the diabetic foot syndrome.

35. **International congresses, symposiums, nationwide conferences including workshops** with a huge attendance of healthcare professionals of all categories and various specializations. One of the biggest event in this country is a nationwide congress organized by the Czech Wound Management Association (ČSRL) in Pardubice every year.

36. **Regional seminars** organized by clinics which deal with the problems of wound healing in detail. Such events are either one-field or multi-field.

37. **Czech Wound Management Association (ČSRL)**. Their goal is to participate in complex solution of the wound-healing problem, improving the quality of care for patients with chronic wounds in hospitals, emergency wards and at home, too. They organize specialized events and seminars focused on diagnostics and wound
management (e.g. the above-mentioned congress in Pardubice). They participate in forming specialized standards in care for patients with chronic defects. Their activities are focused both on healthcare professionals and laymen. Members of ČSLR in NCO NZO Brno participate in teaching courses in modern understanding of wound treatment. Through the activity Hojení 21 (Healing 21) they help teach especially laymen/caretakers and patients. Members of ČSLR are physicians and nurses from various fields, scientific professionals and others. Even layman-caretakers can become members. Since 2003 ČSLR has collaborated with EWMA (European Wound Management Association). There are position documents and recommended procedures on various topics on web pages of ČSLR. Presumably these procedures will help support competences of nurses in the future and thus will make it easier for nurses to manage chronic wounds by creating multidisciplinary teams, comprising nurses, physicians, diabethologists and other professionals.

38. Elaborated guidelines for the management of shin ulcers, chronic wounds and decubitus, Standards diabetic foot syndrome management, which are a certain diagnostic and therapeutic manual. The Czech Wound Management Association (ČSLR) has elaborated position documents and recommended procedures on various topics: Difficult-to-heal wound, Sub-pressure wound management therapy, Early infection management, Early infection criteria, etc. In the category of recommended procedures there are these procedures: Recommended procedure WUWHS – Exudate and function of therapeutic dressing, Minimization of pain while redressing wounds, Compression in shin ulcers of venal origin, Diagnosis and wound, V.A.C: recommended usage. The recommendations are meant for physicians and specialized general nurses (Position documents of the EWMA, online). In the field of decubitus the EPUAP issued the following three recommendations: Recommended procedures for prevention, Recommended procedures for the management of decubitus and Recommended nutrition procedures for the prevention and management of decubitus. The results of two or more randomized case-studies, supervised clinical studies studying decubitus in humans, or indirectly if it is suitable, the results of two or more supervised studies on an animal model. Further assessment requires one or more of the following requirements: results of one supervised study, results of at least two case-studies DESCRIPTIVE studies on decubitus in humans, or a professional
opinion (Recommended procedures of the European Pressure Ulcer Advisory Panel, online).

39. **Individual study.** Within individual study nurses can get specialized information from many modern specialized monographies, serial publications (e.g. wound healing), or web pages. For example a new education and information portal on wound healing was founded in 2011 – see [www.hojeniran.cz](http://www.hojeniran.cz). Information on products and technologies used in wound management are posted here. Web portal [www.merudia.cz](http://www.merudia.cz). Also serves for systemic education of healthcare professionals. It is an e-learning application that enables distance education. The teaching is divided according to topics and level of difficulty into 5 levels. A system of specialized seminars follows upon e-learning courses. These seminars are focused on several topics and healthcare professionals will have a chance to participate in them in person (Stryja, 2011, p. 14).

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**Discussion**

Elementary setting of general nurses activities is based on Public Notice 55/2011 Coll. § 4 letter g) saying that a general nurse assesses and treats defects of skin integrity and chronic wounds.

It is necessary to assess skin integrity shall there be any defects. The assessment according to § 4 of Public Notice 55/2011 Coll., is performed by a nurse. The public notice, however, does
not answer questions regarding competences of a nurse while assessing etiology of wounds, their scale and depth, or the presence of a physician while redressing the wounds. Implementing “Grid of nurse competence” into practice could solve this problem of redressing decubituses (Koutná, 2009, s. 17—22). Shall the grid attest well in practice (it is now being attested in several healthcare centers), it will help the nurse decide when to call a physician to a defect and when not.

Regulations (§ 4 letter g) and § 61 of Public Notice 55/2011 Coll. stipulate that redressing a wound is in the competence of a nurse. This public notice, § 4, paragraph 1, letter g) stipulates that: “A nurse assesses and treats defects of skin integrity, chronic wounds and stomias”, and paragraph 3, letter d) specifically mentions that “General nurse performs treatment of acute and surgical wounds including the treatment of drains”. § 55–67 of the fourth part of this public notice, which includes the specialization “Nurse for care in surgical fields” (§ 61) says that after obtaining specialized competence they can perform activities on adult persons according to § 54, and furthermore can, without professional supervision and indication of a physician, carry out advisory and dispensary activities focused on the problems of diseases requiring surgical treatment, indicate healthcare aids, assess and treat chronic wounds and recommend suitable dressing materials.

Shall it be necessary to perform surgery while performing redressing (debridement using an excochleation spoon or necrectomy), this intervention is fully in a physician's competence, unless the nurse just took a certified course at IPVZ in Prague “for general nurses in podiatry” after which graduates receive specialized competence to treat plantar hyperkeratosis in diabetic persons and to elementary cleaning of plantar ulcerations in diabetic persons.

Once done redressing, the nurse will record it and sign it in nursing documentation, state what kind of therapeutic dressing was used and time of next redressing. What should a record in nursing documentation of chronic wound contain – is specified on the web pages of ČSLR (Kvasnicová, 2010).

Conclusion

Education of general nurses in terms of caring for nonhealing chronic wounds should be an inseparable part of professional preparation on all levels of education (from pre-graduate to postgraduate education). The requirement of effective preparation for caring for patients with
chronic wounds ensues from routine work stipulated by regulations. Competences of postgraduates, however, are not clearly defined and approved yet.

Summary
This work deals with the possibilities of postgraduate study for general nurses in the field of nonhealing wounds in the Czech Republic. The goal of this work was to search for relevant information about postgraduate study of general nurses in the field of nonhealing wounds in the Czech Republic and also analyze and interpret the respective regulations.

General nurses can attend accredited certified courses organized by the Health Department of the Czech Republic, specialization education focused on different fields (a module focused on treating wounds), courses led by companies distributing healthcare aids, constitutional seminars, e-learning education, etc.

Key words
chronic wounds, nurses, education, pre-graduate, postgraduate, regulations

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Act 105/2011 Coll. which substituted Act 96/2004 Coll. as of April 22, 2011


Public Notice 55/2011 Coll. which stipulates activities of healthcare professionals and other nonmedical professionals. This public notice took effect as of March 14, 2011 terminating
effectiveness of Public Notice 424/2004 Coll. and connecting Public Notice 401/2006 Coll. was canceled.


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Sociocultural presuppositions of meeting with death of nurses in palliative oncological nursing care

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Abstrakt

Introduction: Medical personnel often and closely meet with death, they need professional training and sociocultural presuppositions that should get intensified during their practice. Physical nearness and contact with a dying person do not necessarily have to mean a real closeness and understanding.

Aim of the study: Aim: To find nurses’ motivation for working in palliative oncological nursing care, their opinions on perception and acceptance of death, their relation to nursing care of a dead body, to get a response to open questions of practice and education of clients/patients, of their family members and also of students of the branch of study.

Material and Methods: Respondents - Nurses in palliative oncological nursing care. Students of Medical School. Quantitative methods, technique of a questionnaire.

Results: 65% of nurses want to get lifelong theoretical as well as practical education in palliative care. Nursing care of oncological patients led to self-reflection on acceptance of their own death and influenced their perception of sociocultural life values. The cultivation of their social feelings improved their emphatic abilities and the ability to accompany a patient better. The need to help other people predominates over the motivation.

Conclusions: The social aspect is absent above all in searching for the cultural ritual of our time, which is also mirrored in self-reflection of nurses at their contact with a death. There is missing education of the general public and although experts have been trying hard, this matter is still a taboo.

Key words
Empathy, dignity, motivation, dead body
**Introduction**

All of us wish to die in dignity, with our dear around us, without pain. Dying can come unexpectedly, a person who was enjoying life can be changed in a ruin during a short while. What seemed as granted – enjoyment of life - is disappearing into distance. You cannot get prepared for dying and death, no-one can be sure that the moment of death hits as a hard fist. This is the fact that we have to accept. However, we can be prepared for accompanying, and we need for that to perceive our experiences, our values, our selves.

**Material and methods**

In the research investigation was found out the motivation of nurses for their work in palliative oncological nursing care, their reaction to a dead body, empathy, need to educate themselves, selfreflection of nurses. The research investigations were carried out in the year 2010 by means of the technique of nonstandardized questionnaires created on the basis of experience from practice. Those who were enquired were the nurses working at standard oncological beds, at beds of aftercare and at beds of palliative care, and in hospice facilities.

**Results**

Every man creates the world in which he lives and at the same time he forms his relationship to himself as well as to other people. The term social environment or just social usually means in society or belonging to society. Human work that is a deliberate and purposeful activity therefore in its most essential determination means „one’s own manifestation of life“, the way of coming into the limelight, realization of aims. Work is the space of human selfconfirmation, human selfrealization [Pelcová 2010].

What are sociocultural presuppositions for meeting with death in the present society where despite the efforts of experts from the fields of philosophy, ethics, culturology, social work, psychology this is still a taboo topic. Social aspect for meeting with death expressed by motivation is number one in the table – see Tab.No. 1 [Švecová 2011].
Meeting with death influences nurses’ hierarchy of values and makes them more emphatical. This ability undergoes transformation. We supposed that empathy would get deeper with increasing practice. However, we came to the opposite findings. Younger nurses with shorter length of practice are more emphatical. Older nurses with longer practice show lower empathy and higher professionalism – e.g. they have no problem with the care of a dead body – see Tab. No. 2 [Švecová 2011], where, however, is not presented correlation with age. In the research investigation there was a question whether nurses would be able to grasp the wish of the dying person. The could choose from more answers and they could add any patient’s wish – see Tab.No.3 [Žabková 2011]. From the results of the research investigation emerged that nurses are interested in lifelong education – see Tab.No.4 [Žabková 2011]. 65% of nurses want to be educated in palliative care theoretically as well as practically all through their life . From other research probes, too, emerged that the nurses who come into contact with the dying would like to be further educated, but among the offers of education the topic concerning dying and death is absent. Present comprehension of work with a person is characterized by emphasising the respect to human dignity as the basic human right. This principle can be fulfilled only in the context with other principles such as respect, autonomy etc. A man is also influenced by cultural heritage and mutual appreciation. How can nurses cultivate their own sociocultural presuppositions in meeting with death and at the same time enable a person to die with the feeling of his own dignity and dignity of his life? Dying provides possibility to find the sense of the past life as a whole. A dying person wants to reconcile with his past life. One of the possibilities is a patient’s biographical story which the nurse helps to close and so enables the person to find the sense of his existence here on the Earth, and this helps the nurse in selfreflexion of awareness of the value and mission of her profession. She also needs selfreflexion in order to be able to participate in the „healing“ of the others – see Tab.No.5 [Vaculín 2010].

The term respect is connected with dignity. Nursing personnel takes it as respect of a person to himself and respect to other people as well. They show by respect to themselves how much they appreciate themselves and by respect to the others, on the other hand, they express what value they can see in them. The way the nursing personnel treat a person is reflected in their
perception of themselves and in their self-evaluation and self-respect. Nurses in palliative care have a unique and unsubstitutable role in accompanying a patient on his journey to „eternity“. Nurses help patients to talk about what they are afraid of most and what they are worried about most. This is obviously very demanding on psyche and it requires a personality with clear hierarchy of values, with the ability of self-reflection, with social feelings.

Comprehension of human dignity is a sociocultural phenomenon with which mankind has been concerned since the time of Renaissance. For dignified dying, which is emphasized nowadays often without specifying the contents of this term, it is necessary to realize that it is the respect to life that is very important, and this concerns the care of a dead body as well. Nevertheless, the person is not alive but his mortal frame that was the holder of life also deserves respect because it is the dot after his life and dying. Albert Schweitzer (1875-1965), a doctor, philosopher, moral philosopher, humanist, who emphasizes above all self-reflexion, says that only a person who has respect to himself can have respect to the others.

Discussion
Above all, the attitude of a dying person towards the process of dying decides if dying is good and dignified. What is also extremely important is the attitude of the family and the nearest, and not less important is the attitude of medical personnel towards death. Good dying is influenced by palliative care, nursing care, psychological and other needed care which should be in the final moments of life on the highest level. This care should not be concentrated only on the last hours and minutes, but on a longer period so that an ill person could feel that the last phase of his life is meaningful and of a good quality. Loss of hope accompanies loss of sense of life.

Social aspects of dying are in the Czech cultural environment a sensitive problem. Social aspect is absent particularly in searching for the cultural ritual of the time, which mirrors in self-reflexion of nurses at their contact with death. From the research emerges the fact that students do not come to practice well prepared.

Conclusions
The phenomenon of death and dying touches each of us personally, and both doctors, nurses and other medical personnel meet with dying and death more often than the rest of population. Progress in medicine played an important role in prolonging and improving the quality of life of the inhabitants, but the
attitude towards death, the way we look at it, whether we take it as a threat or a challenge, this depends on every man personally.

<table>
<thead>
<tr>
<th>Attachments</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need to help the others</td>
<td>57</td>
<td>31,1</td>
</tr>
<tr>
<td>Branch of interest</td>
<td>43</td>
<td>23,5</td>
</tr>
<tr>
<td>Personal experience</td>
<td>34</td>
<td>18,5</td>
</tr>
<tr>
<td>Use of psychological attitude to patients</td>
<td>26</td>
<td>14,2</td>
</tr>
<tr>
<td>Practice at palliative care wards</td>
<td>12</td>
<td>6,6</td>
</tr>
<tr>
<td>I am interested in life stories of patients</td>
<td>8</td>
<td>4,4</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
<td>1,6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>183</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Tab.No. 1: Motivation for work in palliative oncological nursing care

| I take it as part of profession                  | 83        | 61,0       |
| This care is not pleasant for me                 | 19        | 14,0       |
| I feel sorry                                     | 17        | 12,5       |
| I feel anxiety                                   | 14        | 10,3       |
| I feel fear                                      | 3         | 2,2        |
| **Total**                                        | **136**   | **100**    |

Tab. No.2 Reaction of nurses to dead body

<table>
<thead>
<tr>
<th>Wish of a dying person</th>
<th>Absolute frequency (n)</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t want feel pain.</td>
<td>117</td>
<td>18,5</td>
</tr>
<tr>
<td>I don’t want to be alone.</td>
<td>114</td>
<td>18,1</td>
</tr>
<tr>
<td>I want to say goodbye to my family</td>
<td>101</td>
<td>16</td>
</tr>
<tr>
<td>I don’t want to lose dignity.</td>
<td>65</td>
<td>10,3</td>
</tr>
<tr>
<td>I don’t want to feel fear</td>
<td>59</td>
<td>9,4</td>
</tr>
<tr>
<td>I need a priest</td>
<td>43</td>
<td>6,8</td>
</tr>
<tr>
<td>I want to be sure my family will cope without me.</td>
<td>2</td>
<td>6,7</td>
</tr>
<tr>
<td>I want to reconcile with someone.</td>
<td>32</td>
<td>5,1</td>
</tr>
<tr>
<td>I want to become healthy.</td>
<td>23</td>
<td>3,6</td>
</tr>
<tr>
<td>I need to solve last will</td>
<td>17</td>
<td>2,7</td>
</tr>
<tr>
<td>Other wishes</td>
<td>5</td>
<td>0,8</td>
</tr>
<tr>
<td>I don’t know, I didn’t hear any wish from dying person.</td>
<td>13</td>
<td>2,1</td>
</tr>
<tr>
<td>Frequency</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Co-operation with psychologist</td>
<td>41</td>
<td>37.6</td>
</tr>
<tr>
<td>Practical educational stays at accredited workplace</td>
<td>38</td>
<td>34.9</td>
</tr>
<tr>
<td>Theoretical seminars</td>
<td>30</td>
<td>27.5</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>100.0</td>
</tr>
</tbody>
</table>

| Tab. No 4 Ways of getting information about death, dying and preparing for death |
|---------------------------------|----------------|----------------|
| Awareness of man’s own finality | Yes (20.4%) | No (79.6%) |
| Awareness of permanent values in life | 16.3% | 83.7% |
| Confirmation of religious beliefs | 20.4% | 79.6% |
| Fear of the unknown | 17.3% | 82.7% |
| Worries about the future | 13.3% | 86.7% |
| Fear of dying | 22.4% | 77.6% |
| Fear of pain | 41.8% | 58.2% |

| Tab. No. 5. Nurses answered the question if meeting with death brings any positive things as following |

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MEDİCAL ERROR TYPES AND CAUSES OF NURSING CARE IN TURKEY

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INTRODUCTION

Human error and preventable adverse events in clinical domains are now widely recognised as an inevitable feature of health care systems around the world (1,2).

The Institute of Medicine (IOM) report outlined recommendations to improve the quality and safety of patient care, recognizing the need for a better understanding of the incidence and causes of medical error as well as an increased awareness of the problem by the medical community (3).

The Institute of Medicine defines medical error as the “failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim.” (4).

Most people believe that medical errors usually involve drugs, such as a patient getting the wrong prescription or dosage, or mishandled surgeries, such as amputation of the wrong limb. However, there are many types of medical errors (5,6). The following eight categories summarize types and causes of medical errors made by nurse (5,6,7),

• Lack of attentiveness (e.g. missed predictable complications, such as a postoperative haemorrhage)
• Incomplete patient information (e.g. not knowing about patients’ allergies, other medicines they are taking, previous diagnoses, and lab results, for example);
• Inappropriate judgement (e.g. failure to recognise the implications of a patient’s signs and symptoms)
• Medication error (e.g. wrong drug, wrong route, wrong amount, etc.)
• Lack of intervention on the patient’s behalf (e.g. failure to follow up on signs of hypovolemic shock)
• Lack of prevention (e.g. failure to prevent threats to patient safety such as via breaches of infection control precautions)
• Missed or mistaken doctor/health care provider’s orders (e.g. carrying out inappropriate orders/ mistaking orders)
• Documentation errors (e.g. charting procedures or medications before they were completed/ failure to chart observations)

Efforts to reduce medication errors must be multidisciplinary and include pharmacists and nurses as well as physicians. A suitable work environment must be created, including the systematization of procedures for prescribing, filling, and administering medications (8).

**AIM**
This research was carried out as a descriptive study in order to determine types, causes and prevalence of medical errors made by nurses in Turkey.

**METHOD AND MATERIAL**
Seventy eight nurses who are working in a randomly selected hospital from five hospitals in Giresun city centre were involved in the study. During data collection ‘Information Form for Nurses’ and ‘Medical Error Form’ were used. ‘Medical Error Form’ consists of 2 parts and 55 items including types and causes of medical errors. In part 1, as participant answering the items related to the status of medical error seen, she responds by marking one of the choices as; Never, Rarely, Sometimes, Usually, Always. In part 2, participant indicates the items related to causes of medical error by marking one of the choices as; None, Little, Moderate, High and Very High. Statistical Package for Social Sciences (SPSS) for windows version 12.0 was used for data entry and analysis. The data were evaluated using the percentage distribution and mean. Prior research, written approval from the institution and verbal contents from the nurses were obtained.

**RESULTS**
Mean age of nurses is 25.5±6.03 and 50% of the nurses graduated health professional high school in this study. It is found that nurses’ working hours per week, total shift per month and total patients cared in a day are respectively 53.6±7.9 hour, 6.6±3.88 and 11.6±9.30.
Table 1 demonstrates the types of medical error are seen sometimes. The most common type of medical malpractice is ‘Hospital infection’ rate of 15.4%. It is reported that the types of medical errors are usually seen ‘Needle or cutting tool injuries’ rate of 3.8% and ‘Fatal or injurious falls’ rate of 2.6%.
Table 2 shows the causes of medical errors made by nurses. 38.5% of the nurses reported ‘tiredness’ as a cause of medical error highly. It is also 21.8% of the nurses reported ‘the small number of nurses working’ as a cause of medical error very highly.

Nurses were asked ‘Have you ever had a medical error that could compromise patient safety’ in the study. 1.3% of the nurses reported that they made medical errors that could compromise patient safety. 15.4% of the nurses reported that they saw medical errors of their colleagues.

**CONCLUSION**

According to the findings the rate of medical error is found to rise as working hours per week and workload of nurses increase.

**PROPOSALS**

Nursing actions include knowing the system, verifying drug orders before administration, confirming the patient’s identity, questioning inappropriate orders or dosages, listening and following up on patient concerns. These small steps can have a huge impact in decreasing medical errors in nursing care.
REFERENCES


CARE MAPS IN GENERAL NURSING

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Abstract
The aim of this study is to present the care map in general nursing care as a tool to improve nursing care for patients with thrombosis in a particular workplace. The basis for creating a map, a method of thought experiment were statistics on the number of patients treated in that work, taking into account age, disease type and the average length of hospitalization, we have obtained content analysis of patient documentation. We proposed a map of care for patients with thrombosis in 8 days using a classification system of nursing diagnoses of NANDA II. Maps are a multidisciplinary care management tool for patients. In many countries, maps are an important tool for improving the quality of work of all team members. Allow the nurse and other members of the multidisciplinary team to focus on the objectives and needs of the populations and the timing of all interventions in order to achieve specific goals in specific time periods.

Keywords: caremap, nurse, general nursing, thrombosis, quality of care

Introduction
One of the tools of managed care as care maps. Maps help nurses do their job faster, cheaper, better, more effectively and efficiently. "Maps are a multidisciplinary care management tool for patient care. They are designed for a specific diagnosis, procedure or treatment "(Skrla, Škrlová, 2003, p. 496). Reflect the way doctors, nurses and other healthcare professionals carry out their work, which should be improved, more efficient, faster and more efficiently. It identifies the key steps in the process of treatment and nursing care for patients, resulting in a maximum quality at minimum cost. "Maps of care put option for nurses focus on nursing interventions planned for each patient individually to achieve the goal" (Slezáková, 2005, p. 9). Processes, interventions and expected results are spread over time, which corresponds to
the length of hospitalization and clinical course of an average patient. The main advantage of care maps (standardized care plans) is to reduce variability in medical and nursing care. Represent a rational and elegant approach to the problem of rapidly increasing and uncontrollable costs (Mesárošová, Hazuchová, 2006). Maps are synonymous with care: care maps, critical paths,"critical pathways", critical care paths, standardized care plans (Slezáková, 2005). They are designed for a specific diagnosis (DRG), a procedure or surgery. Each day of hospitalization is expected to a plan that includes actions for the following "generic" dimensions of medical care: diagnosis, surgery, medication, diet exercise regimen, learning and the planned release. Maps are rational and elegant approach to the problem quickly and uncontrollably increasing costs in clinical practice is a tool that helps to organize, sort and make temporary basis of an intervention of medical and nursing staff and other members of the multidisciplinary team. They are designed for specific diagnoses such as asthma, AIM (Slezáková, 2005). Maps reflect the progressive care solutions to specific problems a patient or a condition associated with treatment response. Expected results of interventions and care from the perspective of the patient are therefore clearly defined and can be predicted. Represent the standard of care medical devices for the diagnosis, treatment or issue every day until the day of release. The map also allows calculate expenses for each day of such treatment.Its advantage is that it is able to demonstrate a relationship set to file the necessary interventions and expected outcomes under economically acceptable conditions for a specific medical device. "Maps but they only represent the majority and not all cases in this patient population. There will always be some deviation from this standard because the patient responded to treatment may be different "(Slezáková, 2005, s.132). The following summary is provided of how maps help us save money, increase efficiency and improve outcomes of care: care maps foster cooperation and coordination of care that minimize its fragmentation, the maximum efficiency is achieved by each team member know exactly what the process schedule and the expected results to be achieved when treating patients, the fact that the whole team involved in the preparation of maps and care that the presented strategy agrees to reduce variability of care (medical and nursing) care is limited overlap between the different providers, duplication and unnecessary wastage sources, maps, increases the sense of personal responsibility for the care and intervention, the deviation from the planned progress of treatment are monitored and appropriate corrective interventions when deviations are immediately initiated, documentation and teaching the patient / family
are more effective, nurses maps help replace the production of an individualized plan of nursing care or daily records of the lengthy course of treatment, duration of hospitalization, the incidence and severity of complications are also reduced through the standard approach to care presented in the map due care and appropriate and prompt response in the event of deviations from the expected course, maps offer an ideal tool for continuously improving quality, easy to govern in accordance with new knowledge and new needs of patients, to protect medical and nursing staff in the event of litigation, helping to monitor the reasons for deviations from the standardized care plan, reflecting how physicians and other care providers, who created it, they carry out their work (Mesárošová, Hazuchová, 2006). When using maps care is almost impossible to forget any important aspect of care and all interventions are clearly and accurately documented. Vascular diseases are the most serious health, social and economic problems not only in the Slovak Republic (Klener et al., 1999). Deep vein thrombosis is a disease with a relatively high incidence. It is measured from 160 to 180 new cases per 100 000 population per year. In 90 % of cases the pathological formation of clots in the venous system of lower extremities, only rarely affects the upper limb venous system (Bojdová, 2011). Patients with this disease can be treated conservatively or surgically. Map we care department processed for standard cardiac clinic. Data on the average length of hospitalization with thrombosis have emerged in the literature and we processed statistics diagnosed and hospitalized patients in that workplace.

Material and methods

Research sample consisted of 130 patient records of Cardiology University Hospital in Nitra, where content analysis of documents, we surveyed the number of thrombosis in patients diagnosed during 2008. In hospitalized patients in the clinic we investigated the incidence of thrombosis by age, type and average length of hospitalization. Then we thought experiment techniques developed care maps for patients with thrombosis of the leg using the NANDA classification system II. Pearson correlation coefficients, we verify the assumptions about the relationship between age, disease type and length of hospitalization.

Results

Functional diagnostics at the Department of Cardiology clinics in 2008 was 130 patients diagnosed with thrombosis of the leg. Of the total number of patients diagnosed with
thrombosis of the leg N = 130 (100%) were admitted to the cardiology clinic n = 56 (44%), number of patients admitted to other departments n = 37 (28%), number of patients receiving outpatient n = 37 (28%). Furthermore, we are only subjected to analysis of medical records of patients (total 56) hospitalized at the Cardiology Clinic Hospital Nitra. We interested in our age structure of hospitalized patients diagnosed with thrombosis. Of these patients, n = 2 aged 26-45 (4%), n = 11 aged 46-65 (20%), n = 38 aged 66-85 (67%), n = 5 aged 86 -91 (9%). Next, we focused on finding the average length of stay in connection with the age group of AM = 6 days were hospitalized patients aged 26-45 years; AM = 7.27 days aged 46-65 y., AM = 8.89 days in age 66-85 years; AM = 9.4 days aged 86-91 y. The average length of hospitalization in all patients according to age was AM = 8.14 which was the basis for the creation of draft maps of care. Based on data obtained from medical records and records of examinations in patients with a diagnosis of thrombosis, we divided the types of thrombosis. Of the total patients admitted in 2008 to the Cardiology Clinic N = 56 (100%) had a high thrombosis n = 75% (42 patients), thrombosis v saphena n = 2% (1 patient), distal thrombosis, n = 23% (13 patients). According to the observed data, we compared the length of hospitalization according to the extent of thrombosis.Of the total number of patients N = 56 (100%) was the length of hospitalization in high-thrombosis and thrombosis v saphena patients aged 26-45 AM = 7 days, aged 46-65 AM = 7.35 days, aged 66-85 AM = 9.06 days, aged 86-91 AM = 11.40 days. In patients with distal thrombosis, the mean length of hospital aged 26-45 AM = 5.00 days, aged 46-65 AM = 7.19 days, aged 66-85 AM = 8.72 days. Distal thrombosis in the age group 86-91 years had not occurred. We found moderate correlation r = 0.380 depending on the age and length of hospitalization and mean the same relationship of dependence r = 0.316 between the type of thrombosis, and length of hospitalization.

Proposal of care maps in patients with thrombosis

Diagnosis (ICD): I-802 Thrombosis

Medical equipment: Cardiology University Hospital in Nitra

Patient Name:
Telephone No:
Name of doctor:
<table>
<thead>
<tr>
<th>Day / Weekday / Date</th>
<th>1st day of hospitalization</th>
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</thead>
</table>
| Consulting           | - patient income to department  
|                      | - sign the informed consent  
|                      | - information to patient about department, diagnosis, treatment,  
|                      | - awareness of patient-care personnel  
| Tests / examination  | - blood counts  
|                      | - Coagulation tests  
|                      | - Biochemical blood tests  
|                      | - FW  
|                      | - Biochemical examination of urine  
|                      | - Chest X-ray  
|                      | - ECG  
|                      | - initial medical examination  
|                      | - Duplex examination of the lower limbs  
| Activities           | - entrance examination of the patient-doctor  
|                      | - medical history, physical examination  
|                      | - nursing documentation  
|                      | - placing the patient in bed  
|                      | - brace-legs  
|                      | - measure the circumference of the lower limbs  
| Treatments           | - nursing rehabilitation  
|                      | - prevention of decubitus  
| Medication           | - 0.6 ml Clexane 1-0-1  
|                      | - Warfarin 5mg 1-0-1  
|                      | - Analgesics as needed  
| Diet                 | - as ordered  
| Nursing diagnoses    | 00085 Impaired mobility  
| NANDA II.            | 00092 Activity Intolerance  
|                      | 00102 Deficit of self-care in dietary  
|                      | 00110 Deficit of self-care in emptying  
|                      | 00095 Disturbed sleep  
|                      | 00109 Deficit of self-care in dressing and appearance adjustment  
|                      | 00088 Impaired walking  
|                      | 00040 Risk immobilization syndrome  
|                      | 00132 Acute pain  
|                      | 00148 Fear  
|                      | 00126 Knowledge deficit (specify)  
| Nursing interventions| - patient-revenue department  
|                      | - insertion of intravenous cannula  
|                      | - fluid balance chart  
|                      | - hygiene-patient care  

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- eating-monitor the patient, the feeding  
- training - activities of daily living  
- communication with patients  
- patient rehabilitation, cooperation with a physiotherapist  
- application of therapy  
- monitoring of faecal and urine excretion

<table>
<thead>
<tr>
<th>Day / Weekday/Date</th>
<th>2 day of hospitalization</th>
</tr>
</thead>
</table>
| Consulting         | -consultation with a physiotherapist  
                      -communication with the patient (supporting patient) |
| Tests / examination| -physical examination of patients |
| Activities         | -brace-legs  
                      -help with eating  
                      - monitoring of faecal and urine excretion  
                      -painkillers (analgesics, reliever position)  
                      -collection of blood for testing  
                      -measure and record physiological functions  
                      -measure the circumference of the lower limbs |
| Treatments         | - nursing rehabilitation  
                      - prevention of decubitus |
| Medication         | -0.6 ml Clexane 1-0-1  
                      -Warfarin 5mg 1-0-1  
                      -Analgesics as needed |
| Diet               | - as ordered |
| Nursing diagnoses  | 00085 Impaired mobility  
                      00092 Activity Intolerance  
                      00102 Deficit of self-care in dietary  
                      00110 Deficit of self-care in emptying  
                      00095 Disturbed sleep  
                      00109 Deficit of self-care in dressing and appearance adjustment  
                      00088 Impaired walking  
                      00040 Risk immobilization syndrome  
                      00132 Acute pain  
                      00126 Knowledge deficit (specify) |
| Nursing interventions| -fluid balance chart  
                        - hygiene-patient care  
                        - eating-monitor the patient, the feeding  
                        - training - activities of daily living |
### Results - patient care

- patient interested in passive location
- patient has banding legs
- patient interested in reliever position
- patient has regular excretion
- patient eats properly

### Day / Weekday / Date

<table>
<thead>
<tr>
<th>Day / Weekday / Date</th>
<th>3 day of hospitalization</th>
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</thead>
</table>
| **Consulting**       | - consultation with a physiotherapist  
- communication with the patient (supporting patients)  
- communication with family |
| **Tests / examination** | - coagulation tests  
- physical examination of the patient |
| **Activities**       | - brace-legs  
- help with eating  
- monitoring of faecal and urine excretion  
- painkillers (analgesics, reliever position)  
- collection of blood for testing  
- measure and record physiological functions - education of patients and families  
- measure the circumference of the lower limbs |
| **Treatments**       | - nursing rehabilitation  
- prevention of decubitus |
| **Medication**       | - Warfarin 5mg 1-0-1  
- Analgesics as needed |
| **Diet**             | - as ordered |

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### Nursing diagnoses

**NANDA II.**

- 00085 Impaired mobility
- 00092 Activity Intolerance
- 00102 Deficit of self-care in dietary
- 00110 Deficit of self-care in emptying
- 00095 Disturbed sleep
- 00109 Deficit of self-care in dressing and appearance adjustment
- 00088 Impaired walking
- 00040 Risk immobilization syndrome
- 00126 Knowledge deficit (specify)

### Nursing interventions

- fluid balance chart
- hygiene-patient care
- eating-monitor the patient, the feeding
- training - activities of daily living
- communication with patient
- patient rehabilitation, cooperation with a physiotherapist
- application of therapy
- monitor faecal and urine excretion

### Results-patient care

- patient actively participate in care
- patient has active location
- patient has banding legs
- patient has a regular-elimination
- patient eats alone, without help

### Day / Weekday / Date

<table>
<thead>
<tr>
<th>4st day of hospitalization</th>
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<tbody>
<tr>
<td><strong>Consulting</strong></td>
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<tr>
<td>- consultation with a physiotherapist</td>
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<tr>
<td>- communication with the patient (supporting patients)</td>
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<thead>
<tr>
<th><strong>Tests / examination</strong></th>
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<tbody>
<tr>
<td>- physical examination of the patient</td>
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<td>- collection of blood for coagulation tests</td>
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<tr>
<th><strong>Activities</strong></th>
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<tbody>
<tr>
<td>- brace-legs</td>
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<tr>
<td>- measure the circumference of the lower limbs</td>
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<tr>
<td>- painkillers (analgesics, reliever position)</td>
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<tr>
<td>- collection of blood for testing</td>
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<tr>
<td>- measure and record physiological functions</td>
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<tr>
<td>- educate patient and family</td>
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<tr>
<th><strong>Treatments</strong></th>
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<tbody>
<tr>
<td>- nursing rehabilitation</td>
</tr>
</tbody>
</table>
### Medication
- Warfarin 3mg 1-0-0 (or individual)
- Analgesics as needed

### Diet
- As ordered

### Nursing diagnoses
**NANDA II.**
- 00085 Impaired mobility
- 00102 Deficit of self-care in dietary
- 00110 Deficit of self-care in emptying
- 00095 Disturbed sleep
- 00109 Deficit of self-care in dressing and appearance adjustment
- 00126 Knowledge deficit (specify)

### Nursing interventions
- Fluid balance chart
- Hygiene-patient care
- Eating-monitor the patient, the feeding
- Training - activities of daily living
- Communication with patient
- Patient rehabilitation, cooperation with a physiotherapist
- Application of therapy
- Monitor faecal and urine excretion

### Results-patient care
- Patient actively participate in care
- Patient has active location
- Patient has banding legs
- Patient has a regular-elimination
- Patient eats alone, without help
- Patient is educated about disease and prevention
- Family is informed about the treatment and prevention of disease

<table>
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<tr>
<th>Day / Weekday / Date</th>
<th>5 day of hospitalization</th>
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<tr>
<td>Consulting</td>
<td>- Communication with the patient (supporting patients)</td>
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</table>
| Tests / examination  | - Physical examination of the patient
|                       | - Coagulation tests |
| Activities           | - Brace-legs
|                       | - Measure the circumference of the lower limbs
<p>|                       | - Painkillers (analgesics, reliever position) |
|                       | - Collection of blood for testing |
|                       | - Measure and record physiological functions |
|                       | - Educate patient and family |</p>
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<tr>
<th>Treatments</th>
<th>- nursing rehabilitation</th>
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<tbody>
<tr>
<td>Medication</td>
<td>- Warfarin 3mg 1-0-0</td>
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<td></td>
<td>- analgesics as needed</td>
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<td></td>
<td>- past-chronic treatment</td>
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<tr>
<td>Diet</td>
<td>- as ordered</td>
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<tr>
<td>Nursing diagnoses</td>
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<td>NANDA II.</td>
<td>00085 Impaired mobility</td>
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<td></td>
<td>00095 Disturbed sleep</td>
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<td>00148 Fear</td>
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<td>00126 Knowledge deficit (specify)</td>
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<td>00054 Risk loneliness</td>
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<td>00053 Social isolation</td>
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<td>00075 Willing to managing the family burden</td>
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<td>Nursing interventions</td>
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<td>- fluid balance chart</td>
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<td>- hygiene-patient care</td>
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<td>- eating-monitor the patient, the feeding</td>
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<td>- training - activities of daily living</td>
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<td>- communication with patient</td>
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<td>- patient rehabilitation, cooperation with a physiotherapist</td>
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<td>- application of therapy</td>
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<td></td>
<td>- monitor faecal and urine excretion</td>
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<tr>
<td>Results-patient care</td>
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<tr>
<td></td>
<td>- patient actively participate in care</td>
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<td></td>
<td>- patient has active location</td>
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<td></td>
<td>- patient has banding legs</td>
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<td></td>
<td>- patient has a regular-elimination</td>
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<tr>
<td></td>
<td>- patient eats alone, without help</td>
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<td></td>
<td>- patient is mobile, self-sufficient</td>
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<td></td>
<td>- family cooperated with nurses</td>
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<td></td>
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<td>- communication with the patient (supporting patients)</td>
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<td>Tests / examination</td>
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<td></td>
<td>- physical examination of the patient</td>
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<td>Activities</td>
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<td></td>
<td>- brace-legs</td>
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<td></td>
<td>- measure the circumference of the lower limbs</td>
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<td></td>
<td>- painkillers (analgesics, reliever position)</td>
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<td></td>
<td>- measure and record physiological functions</td>
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<td>- educate patient and family</td>
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<tr>
<td>Treatments</td>
<td>- nursing rehabilitation</td>
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</tr>
<tr>
<td>Medication</td>
<td>- Warfarin 3mg 1-0-0</td>
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<tr>
<td></td>
<td>- Analgesics as needed</td>
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<tr>
<td>Diet</td>
<td>- as ordered</td>
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<tr>
<td>Nursing diagnoses</td>
<td>00085 Impaired mobility</td>
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<td></td>
<td>00095 Disturbed sleep</td>
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<tr>
<td></td>
<td>00148 Fear</td>
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<td></td>
<td>00126 Knowledge deficit (specify)</td>
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<td>00054 Risk loneliness</td>
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<td>00053 Social isolation</td>
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<td>00075 Willing to managing the family burden</td>
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<tr>
<td>Nursing interventions</td>
<td>- fluid balance chart</td>
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<td></td>
<td>- hygiene-patient care</td>
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<td></td>
<td>- eating-monitor the patient, the feeding</td>
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<td></td>
<td>- training - activities of daily living</td>
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<td></td>
<td>- communication with patient, education</td>
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<td></td>
<td>- patient rehabilitation, cooperation with a physiotherapist</td>
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<td></td>
<td>- application of therapy</td>
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<td></td>
<td>- monitor faecal and urine excretion</td>
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<td>- patient is mobile, self-sufficient</td>
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<td>- family cooperated with nurses</td>
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<td>Day / Weekday /Date</td>
<td>7 day of hospitalization</td>
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<tr>
<td>Consulting</td>
<td>- communication with the patient (supporting patients) and his family</td>
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<tr>
<td>Tests / examination</td>
<td>- Coagulation tests</td>
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<td></td>
<td>- ECG</td>
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<tr>
<td></td>
<td>- Duplex examination of the lower limbs</td>
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<tr>
<td></td>
<td>- physical examination of the patient</td>
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</tbody>
</table>
### Activities
- brace-legs
- measure the circumference of the lower limbs
- painkillers (analgesics, reliever position)
- collection of blood for testing
- measure and record physiological functions
- educate patient and family
- ECG-making

### Treatments
- nursing rehabilitation

### Medication
- Warfarin 3mg 1-0-0
- Analgesics as needed

### Diet
- as ordered

### Nursing diagnoses
**NANDA II.**
- 00085 Impaired mobility
- 00095 Disturbed sleep
- 00148 Fear
- 00126 Knowledge deficit (specify)
- 00054 Risk loneliness
- 00053 Social isolation
- 00075 Willing to managing the family burden

### Nursing interventions
- fluid balance chart
- hygiene-patient care
- eating-monitor the patient, the feeding
- training - activities of daily living
- communication with patient, education
- patient rehabilitation, cooperation with a physiotherapist
- application of therapy
- monitor faecal and urine excretion

### Results-patient care
- patient actively participate in care
- patient has active location
- patient has banding legs
- patient has a regular-elimination
- patient eats alone, without help
- patient is mobile, self-sufficient
- family cooperated with nurses

<table>
<thead>
<tr>
<th>Day / Weekday /Date</th>
<th>8 day of hospitalization</th>
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</thead>
<tbody>
<tr>
<td><strong>Consulting</strong></td>
<td>- communication with the patient (supporting patients) and his family</td>
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<tr>
<td></td>
<td>- education of family members</td>
</tr>
<tr>
<td><strong>Tests / examination</strong></td>
<td>- physical examination of the patient</td>
</tr>
</tbody>
</table>
**Activities**
- release patient report
- informed about date of control tests
- Informed patients about the importance of compliance with treatment regimen
- brace-legs

**Treatments**
- nursing rehabilitation

**Medication**
- Warfarin 3mg 1-0-0
- Analgesics as needed
- past chronic therapy

**Diet**
- as ordered

**Nursing diagnoses**
NANDA II.
- 00054 Risk loneliness
- 000148 Fear
- 0053 Social isolation
- 00075 Willing to managing the family burden

**Nursing interventions**
- education on the follow-up examination
- information about prevention and proper compliance with treatment regimen
- education about good nutrition

**Results-patient care**
- control tests identified the term
- patient and his family know about the need for following the proper regimen
- patient is educated good nutrition
- patient is released under home care

**Discussion**
According to Šonský (2010) the incidence of thrombosis increases with age in the group 80ročných it overcomes every year about 0.5% of the population. For each life affects the ninetieth man. These statements reflect the results of our previous studies. Treatment should begin as soon as possible - already suspected this diagnosis. It depends on the speed and completeness of recanalisation rate, valvular damage and subsequent development of long-term consequences - post-thrombotic syndrome, which develops in varying degrees, on average, one in 2-3 patients who had thrombosis. Manifestations have from about 0.5% of the adult population. Since residual disability depends on the risk of recurrence, which occurs in 10 years on average, 30% of patients (Šebo, 2010). Map was created to care eight days to help nurses to create a complete view of the procedure in the treatment of patients diagnosed with thrombosis of the recommendations Skrla, Škrlová (2003), Mesárošová, Hazuchová (2006). In the design of nursing diagnoses, we used the classification system of nursing
diagnoses - NANDA taxonomy II by Herdmana et al. (2009) for a single defining the unmet needs of patients (Vőrősová et al. 2011). The draft maps have been provided care, nursing diagnoses, which were in patients with thrombosis unlikely. We included diagnosis in the map based on an interview with the nurses working at Cardiology Clinic, comparing their experience in practice and clinic of the disease itself. The first day of hospitalization, we propose the following affiliates diagnosis:00085 Impaired mobility, 00092 Activity Intolerance, 00102 Deficit of self-care in dietary, 00110 Deficit of self-care in emptying, 00095 Disturbed sleep, 00109 Deficit of self-care in dressing and appearance adjustment, 00088 Impaired walking, 00040 Risk immobilization syndrome 00132 Acute pain, 00148 Fear, 00126 Knowledge deficit (specify). The second day of hospitalization, the diagnosis: 00085 Impaired mobility, 00092 Activity Intolerance, 00102 Deficit of self-care in dietary, 00110 Deficit of self-care in emptying, 00095 Disturbed sleep, 00109 Deficit of self-care in dressing and appearance adjustment, 00088 Impaired walking, 00040 Risk immobilization syndrome, 00132 Acute pain, 00126 Knowledge deficit (specify). On the third day of hospitalization:00085 Impaired mobility, 00092 Activity Intolerance, 00102 Deficit of self-care in dietary, 00110 Deficit of self-care in emptying, 00095 Disturbed sleep, 00109 Deficit of self-care in dressing and appearance adjustment, 00088 Impaired walking, 00040 Risk immobilization syndrome, 00126 Knowledge deficit (specify). The fourth day of hospitalization:00085 Impaired mobility, 00102 Deficit of self-care in dietary, 00110 Deficit of self-care in emptying, 00095 Disturbed sleep, 00109 Deficit of self-care in dressing and appearance adjustment, 00126 Knowledge deficit (specify). The fifth, sixth, seventh and eighth day of hospitalization, nursing diagnoses were00085 Impaired mobility, 00095 Disturbed sleep, 00148 Fear 00126 Knowledge deficit (specify), 00054 Risk loneliness, 00053 Social isolation, 00075 Willing to managing the family burden. Most nursing diagnoses related to the biological needs of the patient, so there were somatic in nature. Activities and nursing interventions reflect the recommendations of the eighth edition of the American College of Chest Physicians Evidence-Based Clinical Practice Guidelines in 2008 for the treatment of thrombosis (Hirsh, 2008). We also respect the draft recommendations for diagnosis and treatment of thrombosis Slovak Angiology Society, Slovak Society for Vascular Surgery, Slovak Dermatological Society, Slovak Society for Thrombosis and Haemostasis, Slovak Surgical Society and Slovak Internist Society where
one-fourth as stated (2008), all patients must be treated with compressive treatment is important, mobilization of the patient with a bandage or compression stockings, patients must have bed rest. Quality is under Cetlova (2011) complex very concept and has a number of dimensions.

Conclusion

Map provides a clear system of care for medical and nursing care from patient admission to the planned release, aligning the provision of nursing activities during the acute and follow-up care, closer and closer to specify what additional personnel (doctor, physiotherapist, social worker, psychologist) must cooperate with whom will care to participate. Quality nursing care is reflected not only in patient satisfaction but also helps reduce operating costs. Care maps as an option to improve nursing care and to meet all patient needs. This is a radical change in thinking to be implemented in the organizational structure of departments. For further research proposes to create new maps of nursing care using evidence-based and as recommended Solgajová, Semanišinová (2011) and applied in practice care maps, verify the use of classification systems and to develop a computer program suitable for use above mentioned new trends in nursing.

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ASSOCIATION BETWEEN BODY MASS INDEX AND HEALTHY LIFE ASPECTS AMONG MIDDLE AGE WOMEN WITH CARDIOVASCULAR DISEASES IN BAGHDAD CITY – IRAQ

Iqbal Majeed Abbas

Maternal & Child Health Nursing Department, Nursing College, University of Baghdad, MOHESR, Iraq

Abstract

Introduction: Women can now expect to live one third of their adult life beyond menopause so they need monitoring and strategic framework within health agencies in preventing and control cardiovascular diseases.

Objective: A study was conducted to identify healthy life aspects and body mass index among women with cardiovascular diseases and to find out the relationship between each aspect of life style and body mass index.

Material And Methods: A descriptive analytical study was conducted on a purposive sample of (200) middle age women with cardiovascular disease were selected and received medical services from medical popular clinics at Baghdad City. Data were collected through the use of the questionnaire during the period from the 22nd Aug to, 20th Dec 2009. Descriptive and inferential statistical procedures were used to analyze the data.

Results: The results of the study showed that the highest percentage of study sample was at age (45-49) years, most of them were housewives, illiterate and low socioeconomic status. Half of study samples were obese (≥ 30 kg/m²), the majority (94.5%) of study samples their waist circumference was more than 88 cm and the majority (73.5%) of study samples, their body frame was large. There are statistically significance relationships between exercise healthy life style aspects and body mass index and family CVD history while there are no statistically significance relationships between nutritional healthy life style aspects and body mass index, family CVD history, Age at CVD diagnosis and Previous hospitalization.

Conclusion: Cardiovascular diseases was common in middle age women with low educational and socioeconomic status. There were greater association between exercise of healthy life style and body mass index and family history, so physical activities represented a poorest tool in effective healthy life style among Iraqi women.

Key words: Relationship, Healthy life aspects, cardiovascular diseases, middle age women.
Introduction

Cardiovascular disease (CVD) is the leading cause of mortality and morbidity in women after the age of 50 years in most developed countries (Vitale et al. 2007). CVD is the world’s leading killer accounting for 16.7 million or 29.2 percentage of total global deaths in 2003 (Pande, 2009). CVD is a significant problem for women. Coronary artery disease has long been considered a man’s disease and women have been excluded as a population at significant risk for CVD. Women are poorly informed about CVD, which is the greatest risk for their health. Many of the risk factors for heart disease are similar for men and women such as age, family history, physical inactivity, unhealthy diet, cigarette smoking, hypertension, high serum cholesterol level, and diabetes. Women have unique risk factors which include menopause, oral contraceptive use, and non-contraceptive use of estrogen (WHO, 2009 & Howes, 1998). CVD are increasing in low- and middle-income countries, contributing to the increased prevalence of cardiovascular disease in these countries. Part of this increase in prevalence of these risk factors is due to aging of the population and also to urbanizations with countries. Individuals in urban settings have a different diet (more saturated fat intake, sodium intake) and higher rates of obesity associated with greater intake of calories and less physical activity (Aldana et al. 2005). It was stated that epidemiology, symptoms and progress of cardiovascular disease are different in women than men (Vitale et al. 2007). During the peri-menopausal to postmenopausal years, women experience a substantial increase in their cholesterol level (Grundy 1999). It was reported that woman gain an average of about 1 lb per year and increase their waist circumference (Vitale et al. 2007). There is a decrease in bone mineral density and muscle mass and an increase in percentage body fat even among women with no increase in total body weight (Pascot et al. 1999). Health care providers needs to understand the risk factors associated with CVD women and the important of prevention, recognition of symptoms, and timely referral(Vitale et al. 2007).

Material and Methods:

A descriptive analytical study was conducted identify healthy life style aspects physical exercise, nutrition, body mass index, Waist circumference and frame size among women with cardiovascular diseases and receive medical services from medical popular clinics at Baghdad City. Non-probability sample (purposive sample) consisted of (200) middle age women (45-65 years) who have been diagnosed as cardiovascular diseases and registered with a record card in medical popular clinics. Data were collected through the use of the
questionnaire during the period from the 22th August to, 20th Dec 2009 from four medical popular clinics in Al-Karhk and four in Al-Rusafa district at Baghdad City. The questionnaire was designed and consisted of three main parts including; Socio-demographic, reproductive, obesity and overweight variables and healthy life style aspects related to Physical exercise (10 items) and nutritional (20 items), these items were rated and scored according to Likert scale as three for always, two for sometimes and one for never, while the numeric values for the negative items of the scale were one for always, two for sometimes and three for never, so the cutoff point was two.

Obesity and overweight variables were included waist circumference (WC), frame size and body mass index (BMI). BMI was computed as weight in kilograms divided by the square of height in metres (Knox and Sarah, 2004). The investigator measures the current BMI according to WHO Categories of BMI in 2002 which are:

- Underweight = <18.5 kg/m$^2$;
- Normal weight = 18.5-24.9 kg/m$^2$;
- Overweight = 25-29.9 kg/m$^2$;
- Obesity = 30 kg/m$^2$ or greater.

Waist circumference (WC) was measured with a non-elastic tape. Waist circumference was measured 1 cm above the naval with a standard tape measure. Waist circumference is healthy if females are less than 88 cm (35 inches) according to the United States Department of Health and Human Services. Frame size: quick method is to place fingers around woman wrist: overlap - small; just touch - medium; can't touch – large (American Medical Association, 2000).

Researcher used content validity through reviewing the instrument by panel of twenty two experts in field of nursing, nursing, obstetrician and gynecologist, cardiologist & nutritionist and all expert's opinions were taken in to consideration. Reliability for healthy life aspects (exercise and nutrition) was calculated (0.80, 0.78) respectively by using a split half technique for estimating the internal consistency reliability of an instrument which considered statistical acceptable. Descriptive and inferential statistical procedures which included percentages, mean, standard deviation. mean score and chi-square test were used to analyze the data.
## Results of data analysis

Table (1): Distribution of (200) Study Sample According to Demographic and Socio- Economic Characteristics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Woman n=200</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
</tr>
</tbody>
</table>

### Age group (Years)

<table>
<thead>
<tr>
<th>Age group (Years)</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-49</td>
<td>60</td>
<td>30%</td>
</tr>
<tr>
<td>50-54</td>
<td>41</td>
<td>20.5%</td>
</tr>
<tr>
<td>55-59</td>
<td>51</td>
<td>25.5%</td>
</tr>
<tr>
<td>60-64</td>
<td>28</td>
<td>14%</td>
</tr>
<tr>
<td>65</td>
<td>20</td>
<td>10%</td>
</tr>
</tbody>
</table>

- $X = 53.93 \pm 6.54$

### Social status

<table>
<thead>
<tr>
<th>Social status</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>9</td>
<td>4.5%</td>
</tr>
<tr>
<td>Married</td>
<td>116</td>
<td>58%</td>
</tr>
<tr>
<td>Divorce</td>
<td>10</td>
<td>5%</td>
</tr>
<tr>
<td>Widow</td>
<td>65</td>
<td>32.5%</td>
</tr>
</tbody>
</table>

### Family type

<table>
<thead>
<tr>
<th>Family type</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear</td>
<td>41</td>
<td>20.5%</td>
</tr>
<tr>
<td>Extended</td>
<td>159</td>
<td>79.5%</td>
</tr>
</tbody>
</table>

*Consanguinity of marriage

<table>
<thead>
<tr>
<th>Consanguinity of marriage</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>95</td>
<td>49.7%</td>
</tr>
<tr>
<td>No</td>
<td>96</td>
<td>50.3%</td>
</tr>
</tbody>
</table>

*Degree of consanguinity

<table>
<thead>
<tr>
<th>Degree of consanguinity</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No relation</td>
<td>96</td>
<td>50.3%</td>
</tr>
<tr>
<td>First degree</td>
<td>57</td>
<td>29.8%</td>
</tr>
<tr>
<td>Second degree</td>
<td>38</td>
<td>19.9%</td>
</tr>
</tbody>
</table>

### Level of education

<table>
<thead>
<tr>
<th>Level of education</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td>81</td>
<td>40.5%</td>
</tr>
<tr>
<td>Read &amp; write</td>
<td>19</td>
<td>9.5%</td>
</tr>
<tr>
<td>Primary school graduate</td>
<td>17</td>
<td>8.5%</td>
</tr>
<tr>
<td>Intermediate school graduate</td>
<td>13</td>
<td>6.5%</td>
</tr>
<tr>
<td>Secondary school graduate</td>
<td>16</td>
<td>8%</td>
</tr>
<tr>
<td>Institution graduate</td>
<td>16</td>
<td>8%</td>
</tr>
<tr>
<td>University graduate and above</td>
<td>38</td>
<td>19%</td>
</tr>
</tbody>
</table>

### Occupation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housewife</td>
<td>120</td>
<td>60%</td>
</tr>
<tr>
<td>Government employed</td>
<td>69</td>
<td>34.5%</td>
</tr>
</tbody>
</table>
Table (1) shows that the highest percentage (30%) of study sample at age group (45-49) years, while the lowest percentage (10%) of them their ages were 65 years and the mean with SD of age was 53.93 ± 6.54 years. More than half of the study sample was married, while only (4.5%) were single. Most (79.5%) of study sample were extended family while (20.5%) were nuclear family. Half of the study sample there was no relation between study sample and their husbands while (49.7%) of them were relative. More than one quarter (29.8%) of the study sample the degree of consanguinity with their husbands was first degree and (19.9%) of them were second degree of consanguinity. (40.5%) of the study sample was illiterate, while the lowest percentage (6.5%) of them graduated from intermediate school. More than half (60%) of the study sample were housewives, while (1%) of them were self employed. The highest percentage (64%) of them were from low socioeconomic status, while (15%) of them from upper socioeconomic status. The majority (72%) of the study sample had family history of CVD, while (28%) of the study sample had no family history of CVD.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Women</th>
<th>*n = 191</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Duration of marriage/Years</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>&lt;10</td>
<td>17</td>
<td>8.9%</td>
</tr>
<tr>
<td>10-19</td>
<td>26</td>
<td>13.6%</td>
</tr>
<tr>
<td>20-29</td>
<td>55</td>
<td>28.8%</td>
</tr>
<tr>
<td>30-39</td>
<td>59</td>
<td>30.9%</td>
</tr>
<tr>
<td>30-39</td>
<td>34</td>
<td>17.8%</td>
</tr>
</tbody>
</table>
Table (2) shows that the highest percentage (30.9%) of study sample their duration of marriage were between (30-39) years, (83.2%) of study sample had five and more pregnancies, More than half of study sample had four and more deliveries, (41.4%) of the study sample had no history of abortion, (83.8%) of study sample had four and more alive child and the majority (93.2%) of study sample were fertile and (51.8%) of study samples used of contraceptive pills previously.
Table (3): Distribution of Study Sample According to Current Body Mass Index, Waist Circumference and Body Frame

<table>
<thead>
<tr>
<th>Variables</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body mass index / kg/m²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underweight = ≤18 kg/m²</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Normal weight = 18-24 kg/m²</td>
<td>16</td>
<td>8%</td>
</tr>
<tr>
<td>Overweight = 25-29 kg/m²</td>
<td>80</td>
<td>40%</td>
</tr>
<tr>
<td>Obesity = ≥ 30 kg/m²</td>
<td>102</td>
<td>51%</td>
</tr>
<tr>
<td>Waist circumference / cm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy = ≥88 cm</td>
<td>11</td>
<td>5.5%</td>
</tr>
<tr>
<td>Risk = &lt; 88 cm</td>
<td>189</td>
<td>94.5%</td>
</tr>
<tr>
<td>Body frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small = (Fingers overlap wrist)</td>
<td>20</td>
<td>10%</td>
</tr>
<tr>
<td>Medium = (Finger just touch)</td>
<td>33</td>
<td>16.5%</td>
</tr>
<tr>
<td>Large = (Finger can't touch)</td>
<td>147</td>
<td>73.5%</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table (3) shows that half of study samples were obese (≥ 30 kg/m²), the majority (94.5%) of study sample their waist circumference was more than 88 cm and the majority (73.5%) of study sample, their body frame was large.

Table (4): Distribution of (200) Study Sample According to Exercise Life Aspects for Women with Cardiovascular Diseases

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Table (4) shows that grand mean of score was lower than cut off point. The table also indicated that the highest mean of score (2.31) of the exercise aspects was item No. (7) refers to, walk whenever possible, while the lowest mean of score (1.1) was item No. (9) refers to job outside home involves walking to work.

Table (5): Distribution of (200) Study Sample According to Nutritional Life Aspects for Women with Cardiovascular Diseases

<table>
<thead>
<tr>
<th>Nutritional aspect</th>
<th>always</th>
<th>Sometime</th>
<th>Never</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>1. Select fish as animal protein.</td>
<td>102</td>
<td>51%</td>
<td>71</td>
<td>35.5%</td>
</tr>
<tr>
<td>2. Select chicken without skin</td>
<td>73</td>
<td>36.5%</td>
<td>34</td>
<td>17%</td>
</tr>
<tr>
<td>3. Select lean cuts of meat once a week</td>
<td>33</td>
<td>16.5%</td>
<td>59</td>
<td>29.5%</td>
</tr>
<tr>
<td>4. Select low fat dairy products.</td>
<td>29</td>
<td>14.5%</td>
<td>36</td>
<td>18%</td>
</tr>
<tr>
<td>5. Select beans, mushroom, soya as vegetable protein.</td>
<td>78</td>
<td>39%</td>
<td>84</td>
<td>42%</td>
</tr>
<tr>
<td>6. Eat fresh and uncooked vegetable (2,5 cup) daily</td>
<td>86</td>
<td>43%</td>
<td>84</td>
<td>42%</td>
</tr>
<tr>
<td>7. Eat 5 fruits fresh and uncooked daily.</td>
<td>100</td>
<td>50%</td>
<td>83</td>
<td>41.5%</td>
</tr>
<tr>
<td>8. Maintain salt intake.</td>
<td>97</td>
<td>48.5%</td>
<td>54</td>
<td>27%</td>
</tr>
<tr>
<td>9. Minimize food in diet that contain large amount of refined flour 1 to 2 pieces.</td>
<td>101</td>
<td>50.5%</td>
<td>42</td>
<td>21%</td>
</tr>
<tr>
<td>10. Drink fluid (8 cups or 2.5 liter of water daily)</td>
<td>121</td>
<td>60.5%</td>
<td>56</td>
<td>28%</td>
</tr>
</tbody>
</table>

Grand Mean of Score 1.49
11. Minimize intake of solid animal fats.

12. Used vegetable oils corn, olive, soya oil etc.

13. Include fiber in diet on a daily basis (nuts, banana, orange, beans, & cucumber).

14. Eat potatoes so much

15. Intake of presweetened food (chocolate) daily.

16. Eat macaroni so much

17. Minimize intake of rice in daily meal

18. Avoid fast meals

19. Eat breakfast

20. read food label and validity in package foods (cans)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Minimize intake of solid animal fats.</td>
<td>92</td>
<td>46%</td>
<td>70 35% 38 19%</td>
</tr>
<tr>
<td>12. Used vegetable oils corn, olive, soya oil etc.</td>
<td>140</td>
<td>70%</td>
<td>52 26% 8 4%</td>
</tr>
<tr>
<td>13. Include fiber in diet on a daily basis (nuts, banana, orange, beans, &amp; cucumber).</td>
<td>130</td>
<td>65%</td>
<td>59 29.5% 11 5.5%</td>
</tr>
<tr>
<td>14. Eat potatoes so much</td>
<td>42</td>
<td>21%</td>
<td>89 44.5% 69 34.5%</td>
</tr>
<tr>
<td>15. Intake of presweetened food (chocolate) daily.</td>
<td>60</td>
<td>30%</td>
<td>83 41.5% 57 28.5%</td>
</tr>
<tr>
<td>16. Eat macaroni so much</td>
<td>98</td>
<td>49%</td>
<td>64 32% 38 19%</td>
</tr>
<tr>
<td>17. Minimize intake of rice in daily meal</td>
<td>77</td>
<td>38.5%</td>
<td>78 39% 45 22.5%</td>
</tr>
<tr>
<td>18. Avoid fast meals</td>
<td>79</td>
<td>39.5%</td>
<td>66 33% 55 27.5%</td>
</tr>
<tr>
<td>19. Eat breakfast</td>
<td>162</td>
<td>81%</td>
<td>21 10.5% 17 8.5%</td>
</tr>
<tr>
<td>20. read food label and validity in package foods (cans)</td>
<td>74</td>
<td>37%</td>
<td>29 14.5% 97 48.5%</td>
</tr>
</tbody>
</table>

*Negative items

Table (5) shows that the grand mean of score was higher than cut off point. The table also indicated that the highest mean of score (2.73) of the nutritional aspects was item No. (19) refers to eat breakfast, while the lowest mean of score (1.47) was item No. (4) refers to select low fat dairy products.
### Table (6): Association between Healthy Life Style Aspects and Body Mass Index of (200) Study Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Body Mass Index</th>
<th>Family CVD history</th>
<th>Age at CVD diagnosis</th>
<th>Previous hospitalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy life style</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy life style</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>df</td>
<td>P.V.</td>
<td>$\chi^2$</td>
<td>df</td>
</tr>
</tbody>
</table>
Table (6) shows that there are statistically significant relationships between exercise healthy life style aspects and body mass index and family CVD history while there are no statistically significant relationships between nutritional healthy life style aspects and body mass index, family CVD history, Age at CVD diagnosis and Previous hospitalization.
Discussion

The present study reveals that the highest percentage of study sample are at age group between (45-49) years of age, cardiovascular disease was the leading cause of mortality and morbidity in women after the age of 50 years in most developed countries (Vitale et al. 2007). The highest percentages of the study sample are married women and not in relation (Consanguinity) with their husband. Educationally, the highest percentages of study sample are illiterate as shown in table (1). Education was the socioeconomic status indicator most strongly and consistently associated with the ability to recall risk factors for cardiovascular disease (Potvin et al. 2000). Regarding occupational more than half of study sample are housewives as shown in table (1). Over 80% of CVD deaths took place in low and middle income countries (WHO, 2007). There was a trend to a more adverse pattern of CVD risk factor levels in the lower socioeconomic status groups. The strongest associations were related to income and education with CVD (Metcalf et al. 2007).

The highest percentages of study sample are in low socioeconomic level as shown in table (1), a strong correlation between socio-economic status and the risk of CVD has been demonstrated by analyses of the death register mortality studies in Britain, Scandinavia, Western Europe, the United States and Japan (Heinemann et al. 1995). The majority of study samples are from families which had previous CVD history as shown in table (1), the highest percentage of study sample are first degree relation (parents and brothers or sisters). Half of study samples were obese (≥ 30 kg/m²) while (1%) of them were under weight (≤18 kg/m²) as shown in table (3). There are statistically significance relationships between exercise healthy life aspect and BMI as shown in table (6). BMI levels of 20–23 kg/m² are found in Africa and Asia, while levels are 25–27 kg/m² across North America and Europe. BMI increases among middle-aged and elderly people. Overweight and obesity lead to adverse metabolic effects on blood pressure, cholesterol, triglycerides and insulin resistance and are risk factors for coronary heart disease, ischemic, stroke and type 2 diabetes mellitus (WHO, 2007). Regarding waist circumference, the majority (94.5%) of study samples were at risk of CVD (< 88 cm), while (5.5%) of them were healthy (≥88 cm) as shown in table (3). A high waist circumference or a greater level of abdominal fat is associated with an increased risk for type 2 diabetes, high cholesterol, high blood pressure and heart disease (WHO, 2007). In Western populations, waist circumference (WC) is more
predictive of cardiovascular disease (CVD) risk than is body mass index (BMI). It is unclear whether the same is true in Asian populations (Wildman et al., 2005).

The highest mean score (2.31) of the exercise items were No. (A.7) refers to, walk whenever possible for example shopping or visiting Mosque as religious tasks, while the lowest mean score (1.1) was item No. (A.9) refers to job outside home involves walking to work as shown in table (2). The cardiovascular benefits of walking have been demonstrated in studies of middle-aged and older women. In the Nurses’ Health Study, an eight year follow-up of 72488 healthy female nurses aged 40–65 years, three hours of brisk walking per week had the same protective effect as 1.5 hours of vigorous exercise per week (Manson et al. 1999). The highest mean score (2.73) of the nutrition items were No. (B-19) refers to have breakfast, while the lowest mean score (1.47) was item No. (B.4) refers to select low fat dairy products, table (3). Eating whole-grain breakfast cereals seven or more times per week was associated with a lower risk of heart failure a healthy diet including whole-grain breakfast cereals along with other measures may help reduce the risk of heart failure. Even in a population with overall healthy behavior, it is possible to see less heart failure in those who eat a whole-grain cereal breakfast (American Heart Association, 2007). There are statistically significance relationships between healthy life aspects (exercise, nutrition) and family CVD history as shown in table (6), this result coincided with Cheek et al. (2008) stated that genetics cardiovascular disease had a strong genetic component, and inherited susceptibility patterns appear in families.

**Conclusion:**

- Cardiovascular diseases was common in middle age women with low educational and socioeconomic status.
- BMI increases among middle-aged and elderly people. Overweight and obesity are risk factors for coronary heart disease.
- There were greater association between exercise of healthy life style and body mass index and family history, so physical activities represented a poorest tool in effective healthy life style among Iraqi women.

**Recommendations:**

- Routine screening of hypertension and hypercholesterolemia for women in reproductive and middle age period who have a family history of cardiovascular disease.
Engaging in physical activity and consuming healthy diets are necessary to promote behavioral change by creating partnership between governments, national and international organizations, consumers and the media.

Combating obesity in women within the activities of Primary Health Care Centers services through enhancing of physical activities.

Women should be increased their awareness of the risk factors with addressing healthy life style in the school curriculum and mass media to avoid cardiovascular diseases complications.

Further research for the promotion and protecting women's health from cardiovascular diseases is needed.

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SAFETY OF ENVIRONMENT OF TRAUMATOLOGY PATIENT

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Holism is an idealistic philosophical approach, which views man as a whole being in constant interaction with its surroundings (Líšková, Nádaská, 2004, p.15).

„Safety and security represent one of the main human needs.“ (Trachtová, et al, 2001, p. 142).

Maskálová (2008, s. 122) describes this need for safety as motivation “of a person to conduct safety measures against injuries, wounds or damage“. Environment, as part of metaparadigmatic concept of nurturing is defined by Kubicová (2005, s.58). „...as internal structures and external influences, which means that whole surroundings structure affects people and their health.

“Nurturing takes into account the fact that people are in constant interaction with their surroundings, seen as a system, which significantly affects both people acting as a system, as well as health viewed as a system. Optimization of medical care asks for a balance between these two systems.”

In general, it can be said that environment is not neutral. Health can be supported, but also damaged. Man is never affected by one factor only, but rather by their sum. Some kinds of these factors can be handled by a person, but the others can produce a reaction which affects one’s health.

Environment safety is becoming a more and more common issue. It is spoken of in connection with increase in quality of medical care and hospital accreditation (Krystýnová, 2010). Presently, it is not enough for patients to be offered only quality medical and health care. Environment, in which this care is conducted, is very important as well.

How one sees safety and danger affects one’s activities in all aspects of living. Safety measures are effective only when a person is aware of the danger. Factors, which influence this need, are not innate, but acquired step by step. When growing up, people meet possible
dangers and as a result, they use various safety measures in order to prevent environment perils.

„Optimal medical environment is a philosophy, which aims at supporting patients in feeling peacefulness, hope, growth and joy. At the same time, it offers the possibility to relax, get personally enriched and spiritually encouraged, become humorous, have activated inner forces connected with the wish to get better.“ (Škrla, Škrlová, 2003, s. 120). „Positive attitude of medical staff towards patients’ safety is becoming an absolute priority, together with constant search for new ways of making the whole system of medical care safer.“ (Škrla, Škrlová, 2003, s. 127).

In medical institutions, which have become aware of the positive effect on healthy and open organisational cultures for bettering medical care, the term culture of safety has become a trendy term (Joint Commission Resources, 2007).

Ministry of health of SR issued a Concept of traumatic surgery on 24. April, 2006 and become valid on 1. May, 2006. Its work aim is “complex medical care of patients with injuries, and providing a highly specialized professional care to injured patients who have suffered from vital organs failure.“ (Koncepcia úrazovej chirurgie, 2006).

At the ward, there are patients with injured motoric apparatus, head, stomach, chest and injuries of inner organs. There is a great number of patients with multiple injuries. With patients suffering from injuries of motoric apparatus and head injuries there is a danger from further injuries and falls. Medical care and nurturing must be provided effectively and aiming at patient’s safety.

While the program of continual quality increase tries to constantly increase the quality of medical care and nurturing, management of possible risks means according to Škrla and Škrla (2008, s.17) „...process of identifying, assessing and dealing with potential or actual risks, which can be the cause of injuries, financial loss or loss of a good name of the medical facility“.

This program deals with neglecting obligatory medical and nurturing care, carelessness and matters of professional responsibility (Grohar-Murray, 2003). Insuring safety of the environment is as important as administrating economics or quality. That is why it is important to know all the factors which can endanger the patient. Staying at the medical facility means staying at a highly risky environment. Health problems, which lead to patient’s
hospitalization often worsens patient’s ability to concentrate. Important role of all medical staff is to identify factors which contribute to creation of safe environment, and elimination of all the risks, which can occur during hospitalization (Joint Commission Resources, 2007). Introduced matter is a permanent source of study problems, which has led us to investigate incidental falls at the traumatology workplace in relation to selected parameters. Risk from falling, as well as the fall itself of hospitalized patients, are intentionally selected issues, since they endanger patients of all age and various medical diagnoses, hospitalized at the traumatology ward. According to Frantová, Betkóvá (2010) patients’ falls are the most common and most risky unexpected incident, which complicates the hospitalization.

While formulating the research focus we asked ourselves various questions: Can nurses estimate the risk of fall of their patients? Are they using instruments for measuring risk from falling?

Material and methods
Research was conducted at the Clinic for trauma surgery and orthopaedics - trauma surgery ward of trauma surgery in faculty hospital in Nitra. Research sample was made of n = 75 patients at the Clinic for trauma surgery and orthopaedics - trauma surgery ward. Choice of respondents was intentional. Criteria for inclusion were patients with concrete medical diagnoses: S 06 Commotio cerebri (brain concussion), S72 Fractúra femoris (thigh bone fractures), T 07 Multiple injuries at the time of conducting the research at the Clinic for trauma surgery and orthopaedics - trauma surgery ward. According to classifying criteria we created research sample of n₁ = 25 (100%) respondents with Commotio cerebri diagnosis, n₂ = 25 (100%) respondents with Fractura femoris diagnosis and n₃ = 25 (100%) respondents with Polytrauma diagnosis.

For data collection we used method of structured interview using the Test of cognitive functions STANDARDIZED-MINI-MENTAL STATUS EXAMINATION - SMMSE according to Molloyho, Amelayho, Robertsa (1991) (Vörös ová at al., 2011), with which we tried to discover the level of cognitive functions of the respondents n₁. Test consists of 30 items and instructions and it focuses on orientation, short-term memory, concentration and
reading, memory and higher cognitive functions. It is being assessed by adding up all the points, which patients have gained in particular questions. Patients who got 30 – 24 points are inside the norm, they do not have any cognitive disorder, 23 – 20 points means moderate cognitive disorder, 19 – 10 points means medium cognitive disorder, and 9 – 0 is a serious cognitive disorder. Respondents were classified according to their age, gender and diagnosis.

In our research we used screening test for determining the risk from falling according to Conley (Conley et al., 1999), with which we determined this risk. The test includes 6 items, with which we observed and determined motoric skills, defecation, drugs medication, sensory disorder of mental status, and age. 19 – 14 points means high risk from falling, 13 – 5 points means medium risk from falling, and patients who got 4 – 0 points were without this risk. Respondents were classified according to their age, gender and diagnosis. Using the method of content analysis of documents –anamnesis, medical care records, we obtained anamnestic information about patients, we monitored how nurses recorded risk from falling and falls of patients before and after introducing measurement scales for risk from falling into practice.

**Results**

In our research we used Test of cognitive functions STANDARDIZED-MINI-MENTAL STATUS EXAMINATION according to Molloyho, Amelayho, Robertsa (1991) (further SMMSE) (Vörösová et al., 2011) and screening test for finding the risks from falling according to Conley (Conley et al., 1999).

The main research aim was to evaluate the risk from falling of injured patients during their hospitalization at the Clinic for trauma surgery and orthopaedics - trauma surgery ward.

**Quantitative analysis of risk from falling**

**Table 1** Results of comparison SMMSE test of all respondents

<table>
<thead>
<tr>
<th>SMMSE</th>
<th>norm</th>
<th>moderate cognitive disorder</th>
<th>medium cognitive disorder</th>
<th>serious cognitive disorder</th>
<th>together</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>together</td>
<td>23</td>
<td>30,60%</td>
<td>22</td>
<td>29,40%</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>20,00%</td>
<td>15</td>
<td>20,00%</td>
<td>75</td>
</tr>
</tbody>
</table>

Out of the whole number of respondents n = 75 while assessing the test of cognitive functions SMMSE we found out that 23 (30,60%) respondents were without any cognitive disorders,
moderate level of disorder were present at 22 (29,40%) respondents. Medium cognitive respondents had 15 (20,00%) respondents and the same number of respondents 15 (20,00%) had serious cognitive disorder.

Table 2 Results of comparing the risk from falling among all respondents

<table>
<thead>
<tr>
<th>risk from falling</th>
<th>without risk</th>
<th>medium risk</th>
<th>high risk</th>
<th>together</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>total</td>
<td>11</td>
<td>14,70%</td>
<td>34</td>
<td>45,30%</td>
</tr>
</tbody>
</table>

Out of the whole number of respondents n = 75 (100%), without risk from falling were 11 (14,70%) respondents, at medium risk belonged 34 (45,30%) and at high risk from falling there were 30 (40,00%) respondents.

Table 3 Risk from falling considering the set medical diagnosis

<table>
<thead>
<tr>
<th>diagnosis</th>
<th>no risk</th>
<th>medium risk</th>
<th>high risk</th>
<th>Σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>concussion</td>
<td>N 10</td>
<td>15</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>%</td>
<td>40,00%</td>
<td>60,00%</td>
<td>0,00%</td>
<td>100,00%</td>
</tr>
<tr>
<td>thigh bone fracture</td>
<td>N 1</td>
<td>15</td>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td>%</td>
<td>4,00%</td>
<td>60,00%</td>
<td>36,00%</td>
<td>100,00%</td>
</tr>
<tr>
<td>polytrauma</td>
<td>N 0</td>
<td>4</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>%</td>
<td>0,00%</td>
<td>16,00%</td>
<td>84,00%</td>
<td>100,00%</td>
</tr>
<tr>
<td>Σ</td>
<td>N 11</td>
<td>34</td>
<td>30</td>
<td>75</td>
</tr>
<tr>
<td>%</td>
<td>14,70%</td>
<td>45,30%</td>
<td>40,00%</td>
<td>100,00%</td>
</tr>
</tbody>
</table>

χ² = 45,863 p = 0,000

Based on the value of the Chi-square χ² = 45,863 and significance p = 0,000, we claim that among the monitored groups there is a statistically significant difference. In case of concussion the risk from falling is low at 40% of participants or medium at 60% of participants. In case of thigh bone fracture the risk from falling was either medium - 60% or high - 36%. In case of polytrauma the risk from falling is high - 84%. We can claim that the more serious diagnosis, the bigger the risk.

Results from assessment of content analysis of documents

In this part we focused our attention on discovering how nurses recorded the risk from falling in the patient’s medical documentation at the Clinic for trauma surgery and orthopaedics -
trauma surgery ward at CTS and. We conducted content analysis of randomly selected 25 medical records from nurturing of patients with medical diagnosis of Commotio cerebri, 25 records from nurturing of patients with diagnosis Fractura femoris and 25 records from nurturing of patients with medical diagnosis Polytrauma, who were hospitalized during the last three months before the research was conducted. We found out that the risk from falling was recorded only at some patients on the day they were admitted to the ward, using the nurse’s diagnosis A 113 – Immobility, A – 115 restricted movement and A – 116 Risk from injury and hurting according to state notice of MZ SR (Ministry of Health) nm. 306 from year 2005, which is used to set the list of nurses’ diagnoses.

Table 4 Number of recordings of risk from falling before introducing the measuring instruments into practice

<table>
<thead>
<tr>
<th>Medical records containing selected diagnoses</th>
<th>Concussion</th>
<th>Thigh bone fractures</th>
<th>Polytrauma</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>A 113 Immobility</td>
<td>0</td>
<td>0,00%</td>
<td>3</td>
</tr>
<tr>
<td>A 115 Restricted movement</td>
<td>0</td>
<td>0,00%</td>
<td>11</td>
</tr>
<tr>
<td>A 116 Risk of injuries and wounding</td>
<td>12</td>
<td>16,00%</td>
<td>0</td>
</tr>
<tr>
<td>SMMSE</td>
<td>0</td>
<td>0,00%</td>
<td>0</td>
</tr>
<tr>
<td>Test on risk from falling</td>
<td>0</td>
<td>0,00%</td>
<td>0</td>
</tr>
</tbody>
</table>

From the total number 75 (100%) of selected medical documentation we recorded patient’s falling in 7 (9,30%) cases, as recorded in patient’s medical records. The list consisted of a date, time, fall description, notifying the doctor on duty and attending nurse’s signature. Recorded were medical interventions, which were conducted after the fall and following doctor’s orders.

Table 5 Number of recorded risks from falling after introducing measuring instruments into practice

<table>
<thead>
<tr>
<th>Medical records containing selected diagnoses</th>
<th>Concussion</th>
<th>Thigh bone fractures</th>
<th>Polytrauma</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>A 113 Immobility</td>
<td>0</td>
<td>0,00%</td>
<td>3</td>
</tr>
<tr>
<td>A 115 Restricted movement</td>
<td>4</td>
<td>5,30%</td>
<td>11</td>
</tr>
<tr>
<td>A 116 Risk of injuries and wounding</td>
<td>15</td>
<td>19,90%</td>
<td>24</td>
</tr>
<tr>
<td>SMMSE</td>
<td>25</td>
<td>33,30%</td>
<td>25</td>
</tr>
<tr>
<td>Test on risk from falling</td>
<td>25</td>
<td>33,30%</td>
<td>25</td>
</tr>
</tbody>
</table>
After introducing measuring scales into practice at OÚCHaO (trauma surgery ward) we noticed that risk from falling at the selected respondents was recorded in medical records afterwards. From the total number of 75 (100%) respondents, risk from falling of patients with concussion was according to nurse’s diagnosis A 116 present at 15 (19,90%) respondents and nurse’s diagnosis A 115 at 4 (5,30%) respondents. In case of thigh bone fractures, in nurse’s diagnosis A 113 risks from falling were recorded at 3 (4,00%) respondents, A 115 at 11 (14,70%) patients and A 116 at 24 (32,00%) respondents. In case of polytrauma, risk from falling was recorded by nurse’s diagnosis A 113 at 20 (26,60%), A 115 at 1 (1,33%) and A 116 at 25 (33,30%) respondents.

With all 75 (100%) respondents, risk from falling was re-evaluated according to the Test of risk from falling by Conley and 75 (100%) respondents have conducted test of cognitive functions SMMSE.

**Discussion**

In present time all medical institutions are trying to achieve high quality of providing care, they dedicate greater attention to culture of the medical environment, and providing unproblematic hospitalization, all of which increases their public credit. We agree with the opinion of the scientists from Joint Commission Resources (Joint Commission Resources, 2007), who claim that patient’s staying in medical facility means being in a highly risky environment. Health problems, which caused patient to be hospitalized, often worsen their ability to concentrate. Falls are, at every age, the most common and most risky unexpected incident, which complicates patient’s medical treatment (Frantová, Beťková 2010).

From the point of view of assessing the risk from falling, we selected two measuring instruments. The first was Screening test for indicating the risk from falling of patients according to Conley, which we used to record the risk from falling when considering movement, excretion, drugs medication, sensory disorder of mental status, and age. The other test was the Test of cognitive functions STANDARDIZED-MINI-MENTAL STATUS EXAMINATION – SMMSE by Molloyho, Amelayho, Robertsa (1991), which we used to measure the level of cognitive functions focusing on orientation, short-term memory, concentration and reading, memory, higher cognitive functions. Both tests were applied on respondents who were divided according to medical diagnosis and age of patient, during the first 24 hours after the patient’s admission at the ward. Number of hospitalized respondents is 300.
presented in the graph 1. Out of the total number n = 75 of respondents 45 (60%) were men, and 30 (40%) were women. During the testing we were recording inter-gender comparisons of risk from falling between men and women, using statistical method Chi-square, in which the level of importance alfa is less than 0.05. Using the statistical method Chi-square $\chi^2 = 0.901$ and significance $p = 0.637$ we found out that differences between men and women are not statistically significant. That is why we viewed with the whole group as homogenous. This finding corresponds with report of Miklóšova (2010), who says in her work, that frequency of falls between men and women is unnoticeable, which further proves that gender does not affect increase or decrease in number of falls of hospitalized patients.

Based on the Chi-square $\chi^2 = 45.863$ a significance $p = 0.000$, we found out that among monitored groups of respondents with diagnosis of injury, there is a statistically significant difference concerning the risk from falling. In case of concussion risk from falling is low - 40% of participant, or medium - 60% of participants. In case of thigh bone fractures, risk from falling is medium - 60% or high - 36%. In case of polytrauma the risk from falling is high - 84%. We can state that the more serious the diagnosis, the higher the risk from falling.

According to Pokorný (2002) polytrauma is highly risky for a patient and it requires specific medical and nurturing tactics, because it makes us set the dominants of the injury from the very beginning, and conform the priorities of treatment and nurturing to them.

**Conclusions**

We can state that, without systematic monitoring of falls, analysing their causes, and concrete findings coming from preventive measures, one of the basic obligations of medical facility fails – and that is providing safe environment for patients (Joint Commission Resources, 2007)。“

„Positive attitude of medical staff towards the patients’ safety is becoming the absolute priority, when new ways for improvement of the whole system of medical care are being looked for “(Škrla, Škrlová, 2003, s. 127).
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THE SPECIFICS OF LIFESTYLE AND ATTITUDE TOWARDS HEALTH ISSUES AMONG THE MEMBERS OF THE ORTHODOX CHURCH AND AMONG MORMONS

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Abstract
This report is focused on differentiated nursing care provided to the Orthodox and Mormons minorities. The extensive research performed all over the Czech Republic mapped the differences in providing Orthodox and Mormons patients with nursing care. In questionnaire investigation the respondents answered questions related to the care for their health, to their opinions on Czech health service and to the barriers found in Czech health care facilities. The investigation confirmed that the members of the Orthodox and Mormons minorities care for their health and are satisfied with medical care in the Czech Republic. The research results are very positive. The Orthodox and Mormons communities are assimilated and have adapted to the Czech culture in a level that does not require culturally differentiated care. This fact also documents also the high quality of nursing care provided in the Czech Republic. Yet, it is necessary to perceive cultural differences, so that we can offer even more professional and individual care at top modern level.

Key words:
Orthodox – Mormon - minority – multicultural care –nursing

Introduction
There are different minorities in the Czech Republic. General nurse meets patients from religious minorities more and more frequently. That is why it is necessary to put stress on the issue of multicultural care. A qualified nurse is able to saturate the client’s needs and can approach the patients individually. If clients are members of different religious groups, the modern nurse must adapt herself and provide culturally differentiated care. The nurse
approaches the patients in holistic manner, but this is not possible without the knowledge of cultural differences (Leininger, 1994). That is why we believe it is necessary to speak about minorities and to ascertain their differences, in order to adapt nursing care adequately to their needs. This article focuses on two religious minorities in the Czech Republic - the Orthodox Church and the Church of Jesus Christ of the Latter-day Saints.

The Orthodox Church consists of a number of local churches which altogether create the Orthodox Communion. The orthodox religion has its origins in the first Christian community in Jerusalem and in the eastern part of the Roman Empire. Therefore it is also called the Eastern Church. Orthodox believers are predominantly the peoples of Greece and Russia. In the Czech Republic there are about 22 thousand inhabitants that are members of the Orthodox Church.

The members of the Church of Jesus Christ of the Latter-day Saints (further in the text 'Mormons') consider themselves to be the only Christian church authorized by Jesus Christ (Novotný, 2001). It was established in 1830 in USA and has grown significantly since then. Today, the church has more than 12 million members. In the Czech Republic, the church was officially registered in 1990 and currently has about 2 thousand members. (Anon, 2001)

**Goal**

The research is focused on the Orthodox and Mormons minorities living in the Czech Republic. The goal of the work was to detect the barriers preventing the nursing staff from providing holistic care to the Orthodox and Mormons patients. The project had set the goal to map the opinions of Orthodox and Mormons on the quality of medical services in the Czech Republic, to ascertain the communication abilities of the minorities in medical institutions, further to map the approach of the minorities to their health and to map their opinions on the approach of Czech health care workers.

**Aims**

73. Map the care of the minorities for their health.

74. Describe the specific needs and claims of the minorities.

75. Find out how the minorities satisfied with the quality of health care services in the Czech Republic.
**Methodology**

In the first phase of the research a non-standardized interview was carried out with the members of the Orthodox Church and the members of the Church of Jesus Christ of Latter-day Saints. The outcomes of the interviews were analyzed and further verified by an investigation through questionnaire. A questionnaire containing 140 questions was made up for the data collection. The respondents reacted to each of the items expressing certain degree of agreement or disagreement. The assessment scale contained five-degree statement types: I strongly agree – I agree – I don’t know – I don’t agree – I strongly disagree. (Tóthová, 1010)

The questionnaire was distributed among individual members of the Orthodox Church and the members of the Church of Jesus Christ of Latter-day Saints. The research set consisted of 268 respondents from Orthodox minority and 161 Mormons. The total amount of the questionnaires issued to the members of Orthodox Church was of 1440. For the data analysis, 268 questionnaires were used, which a 18.6 % rate of returns. Mormons were given 300 questionnaires, of which 161 returned, i.e. 53.7%.

**Research set Orthodox**

The set consisted of 58 % women and 42 % men. (diagram 1) The respondents were divided into groups by age: the group under 20 years included 7.5 % respondents, the group from 21 to 30 years included 16.4 % respondents, the group from 31 to 40 years included 25 % respondents, the group from 41 to 50 years included 18.3 % respondents, the group from 51 to 60 years included 12.7 % respondents and the least respondents were included in the group over 60 years 20.1 %. Further, the respondents were divided by education: primary education 17 %, vocationally trained 13 %, secondary education 43 % and university education 27 %. (diagram 2)

**Research set Mormon**

The set consisted of 56 % women and 44 % men. (diagram 1) The respondents were divided into groups by age: the group under 20 years included 12.4 % respondents, the group from 21 to 30 years included 11.8 % respondents, the group from 31 to 40 years included 28.4 % respondents, the group from 41 to 50 years included 19 % respondents, the group from 51 to 60 years included 13 % respondents and the least respondents were included in the group over 60 years 15.5 %. Further, the respondents were divided by education: primary education
13 %, vocationally trained 13 %, secondary education 43 % and university education 31 %.
(diagram 2)

**Diagram 1** Respondents according to sex

<table>
<thead>
<tr>
<th></th>
<th>Orthodox</th>
<th>Mormons</th>
</tr>
</thead>
<tbody>
<tr>
<td>women</td>
<td>57.5</td>
<td>56.5</td>
</tr>
<tr>
<td>men</td>
<td>42.5</td>
<td>43.5</td>
</tr>
</tbody>
</table>

**Diagram 2** Respondents according to education

<table>
<thead>
<tr>
<th></th>
<th>Orthodox</th>
<th>Mormons</th>
</tr>
</thead>
<tbody>
<tr>
<td>primary education</td>
<td>16,6</td>
<td>13,1</td>
</tr>
<tr>
<td>vocationally trained</td>
<td>12,8</td>
<td>12,5</td>
</tr>
<tr>
<td>secondary education</td>
<td>43,1</td>
<td>43,1</td>
</tr>
<tr>
<td>university education</td>
<td>27,5</td>
<td>31,3</td>
</tr>
</tbody>
</table>
**Results**

*Diagram 3 Replies of the respondents to the question whether they care for their health*

<table>
<thead>
<tr>
<th></th>
<th>Orthodox</th>
<th>Mormons</th>
</tr>
</thead>
<tbody>
<tr>
<td>I strongly agree</td>
<td>66.6</td>
<td>75.8</td>
</tr>
<tr>
<td>I agree</td>
<td>41.3</td>
<td>21</td>
</tr>
<tr>
<td>I don’t know</td>
<td>7.2</td>
<td>2.5</td>
</tr>
<tr>
<td>I don’t agree</td>
<td>3.8</td>
<td>0.6</td>
</tr>
<tr>
<td>I strongly disagree</td>
<td>1.1</td>
<td>0</td>
</tr>
</tbody>
</table>

88 % Orthodox respondents care for their health (47 % I strongly agree, 41 % I agree), 7 % Orthodox respondents do not know and 5 % respondents do not care for their health (4 % I don’t agree, 1 % I strongly disagree).

97 % Mormons respondents care for their health (76 % I strongly agree, 21 % I agree), 2.5 % Mormons respondents do not know and 0.5 % respondents do not care for their health (0.5 % I don’t agree, 0 % I strongly disagree).
Diagram 4 The respondents drink alcohol

11.3 % Orthodox respondents drink alcohol regularly, 65.8 % respondents drink alcohol occasionally and 22.9 % do not drink alcohol.

No Mormon stated that they drank alcohol regularly, 1.3 % respondents drink alcohol occasionally and 98.7 % Mormons do not drink alcohol.
21.9% Orthodox respondents stated that they smoked and 78.1% respondents stated that they did not smoke.

0.5% Mormons smoke and 99.5% respondents do not smoke.
23 % Orthodox respondents fast during hospitalization (7 % I strongly agree, 16 % I agree), 18 % Orthodox respondents do not know and 59 % respondents do not fast during hospitalization (24 % I don’t agree, 34 % I strongly disagree)
22 % Mormons respondents fast during hospitalization (10 % I strongly agree, 12 % I agree), 12 % Mormons respondents do not know and 66 % respondents do not fast during hospitalization (26 % I don’t agree, 40 % I strongly disagree)
Diagram 7 The respondents accept the pre-birth preparation

<table>
<thead>
<tr>
<th></th>
<th>Orthodox</th>
<th>Mormons</th>
</tr>
</thead>
<tbody>
<tr>
<td>I strongly agree</td>
<td>54.9</td>
<td>68.9</td>
</tr>
<tr>
<td>I agree</td>
<td>24.4</td>
<td>12.8</td>
</tr>
<tr>
<td>I don’t know</td>
<td>19</td>
<td>16.9</td>
</tr>
<tr>
<td>I don’t agree</td>
<td>0.8</td>
<td>1.4</td>
</tr>
<tr>
<td>I strongly disagree</td>
<td>0.8</td>
<td>0</td>
</tr>
</tbody>
</table>

79 % Orthodox respondents accept the pre-birth preparation (55 % I strongly agree, 24 % I agree); 19 % chose neutral answer and 2 % Orthodox respondents do not accept the pre-birth preparation (1 % I don’t agree, 1 % I strongly disagree)

82 % Mormons respondents accept the pre-birth preparation (69 % I strongly agree, 13 % I agree); 17 % chose neutral answer and 1 % Mormons respondents do not accept the pre-birth preparation (1 % I don’t agree, 0% I strongly disagree)
Diagram 8 Replies of the respondents to the question whether they require that the healthcare workers respect their intimacy

76 % Orthodox respondents require that the health care workers respect their intimacy (50 % I strongly agree, 26 % I agree); 19 % have chosen the neutral answer, and 5 % Orthodox respondents do not require that the health care workers respect intimacy (3 % I don’t agree, 2 % I strongly disagree)

78 % Mormons respondents require that the health care workers respect their intimacy (57 % I strongly agree, 21 % I agree); 17 % have chosen the neutral answer, and 5 % Mormons respondents do not require that the health care workers respect intimacy (3 % I don’t agree, 2 % I strongly disagree)
Diagram 9 The respondents require that their religious needs are respected both in health and in illness

27 % Orthodox respondents require that their religious needs are respected both in health and in illness (13 % I strongly agree, 15 % I agree); 56 % Orthodox respondents do not know whether they want that their religious needs are respected, and 17 % Orthodox respondents do not require that their religious needs are respected (7 % I don’t agree, 10 % I strongly disagree)

36 % Mormons respondents require that their religious needs are respected both in health and in illness (19 % I strongly agree, 17 % I agree); 56 % Mormons respondents do not know whether they want that their religious needs are respected, and 8 % Mormons respondents do not require that their religious needs are respected (5 % I don’t agree, 3 % I strongly disagree)
73 % Orthodox respondents are satisfied with the preventive care in the Czech Republic (26 % I strongly agree, 46 % I agree); 13 % Orthodox respondents have chosen the neutral answer, and 14 % Orthodox respondents are not satisfied with the preventive health care (11 % I don’t agree, 3 % I strongly disagree)

74 % Mormons respondents are satisfied with the preventive care in the Czech Republic (33 % I strongly agree, 41 % I agree); 14 % Mormons respondents chose neutral answer, and 11 % Mormons respondents are not satisfied with the preventive health care (11 % I don’t agree, 0 % I strongly disagree)

**Discussion**

**Eating habits**

The members of the Orthodox Church have no special eating habits. Traditionally they refuse blood and food with blood. It is banned to eat food that has been offered to other deities. They cannot eat meat during the period of fast. The church members have no restrictions as to drinking coffee and alcohol. 65.8 % respondents drink alcohol occasionally a 22.9 %
respondents do not drink alcohol. (diagram 4) 21.9 % Orthodox respondents stated that they smoked. (diagram 5)

**Mormons** recommend their members to follow healthy lifestyle. The Mormons are subjected to the so called Word of Wisdom. (Vokoun 2009) which is a teaching that bans alcohol, coffee and green and black tea, other drugs and smoking. The Church members believe that human body is a precious gift from God which must be taken care of. (section 89 The word of wisdom) 1.3 % respondents stated that they drank alcohol occasionally and 98.7 % respondents do not drink alcohol. (diagram 4) 99.5 % respondents do not smoke. (diagram 5)

**Fasting**

The Orthodox avoid meat when they fast. They observe regularly Wednesdays and Fridays without meat. 59 % respondents do not fast during hospitalization. (diagram 6)

The Mormons observe strict fasting. Once a month, usually on Sunday, they have a day without any food or liquids. Pregnant and nursing mothers, children and ill people are exempt from this. 66 % respondents do not fast during hospitalization. (diagram 6)

**Attitude towards health**

The Orthodox understand health as a gift from God. Their health is in God's hands and they pray for it. 88 % Orthodox respondents care for their health. (diagram 3) For the sake of their health they do not refuse any examination or therapeutic procedures. They will agree to transfusion and transplantation.

The Mormons consider health as the most important asset. Human body is a gift from God and must be cared for. They mustn't abuse drugs; human body must not be damaged intentionally. (Michálkova, 2010) The respondents take care of their health by a healthy lifestyle, they refuse drugs, alcohol and tobacco, they do sports. 97 % Mormons respondents care for their health. (diagram 3) In hospital they do not refuse any medical procedure for in favour of their health, they will accept transfusion and transplantation.

**Birth control**

The Orthodox reject extra-marital sexual intercourse. Contraception is not strictly forbidden and is for married women only. After-conception contraceptives are forbidden. Preparations that prevent conception are allowed. The Orthodox Church does not allow abortion. The
respondents prefer child delivery in hospital. 79 % Orthodox respondents recognize pre-birth preparation. (diagram 7)

**The Mormons** observe the commandment of chastity. Sexual intercourse before wedding is forbidden; after wedding it is allowed only between husband and wife. (Anon, 2010) The Mormons acknowledge sex only in matrimony for the sake of conceiving children, however, this rule is not strict and some members use apply birth control, a married woman can use contraception. (Michálková 2009) The church forbids abortion but if the life of the woman is at risk, they leave the decision on the individual members and their families. The respondents prefers deliveries in maternity hospitals. 82 % Mormons respondents recognize pre-birth preparation. (diagram 7)

**Specifics during hospitalization**

The Orthodox can observe their faith during hospitalization. They require the presence of a cleric in hospital. During the illness and hospitalization, the Orthodox do not fast. Most respondents stated that they were satisfied with the level of healthcare in the Czech Republic. They wish that the hospital staff treat them with higher respect. 76 % Orthodox respondents require that the health care workers respect their intimacy. (diagram 8) 56 % Orthodox respondents do not know whether they want that their religious needs to be respected. (diagram 9) 73 % Orthodox respondents are satisfied with the preventive care in the Czech Republic. (diagram 10)

The Mormons can pray in hospital. They do not refuse any medical procedure or any medicine in hospital. Most respondents stated, that they were satisfied with the level of healthcare in the Czech Republic. 78 % Mormons respondents require that the health care workers respect their intimacy. (diagram 8) 56 % Mormons respondents do not know whether they want that their religious needs to be respected. (diagram 9) 74 % Mormons respondents are satisfied with preventive care in the Czech Republic. (diagram 10)

**Conclusion**

This report is focused on differentiated nursing care provided to the Orthodox and Mormons minorities. The extensive research all over the Czech Republic shows the differences in providing Orthodox and Mormons patients with nursing care. The research results are very positive. The Orthodox and Mormons communities are assimilated and have adapted to the
Czech culture in a level that does not require culturally differentiated care. This fact also documents the high quality of nursing care provided in the Czech Republic. Yet, it is necessary to perceive cultural differences, so that we can offer even more professional and individual care at top modern level. The Orthodox and Mormons respondents stated that they were satisfied with the level of healthcare in the Czech Republic. But still they wish that the hospital staff treat them with higher respect.

The research results demonstrated that the members of the Church of Jesus Christ of Latter day Saints (Mormons) adhere to healthy life style, refuse all the types of narcotic substances (coffee, black or green tea, alcohol and tobacco). This research is focused the Orthodox and Mormons minorities consider their health as a God’s gift, which must be protected. The belief in God supports their healthy life style.

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PhDr. Andrea Hudáčková
QUALIFICATION UPGRADING OF NURSES DURING THE SECOND HALF OF THE 20TH CENTURY IN CZECHOSLOVAKIA AS A PREREQUISITE FOR PROVIDING HIGH QUALITY NURSING CARE

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Abstract
Scientific-technical progress, development and specialization of medicine field of studies during the interwar period and mostly after the WW II significantly influenced providing healthcare including nursing care. The first rate effort was to improve the level and quality of provided services in favor of patient and its family. This aspect was closely connected with the education of nurses. That time preparation of nurses was conducted by doctors and skillful nurses-colleagues and was however not sufficient. What are more the crucial changes made in education and preparation of nurses were necessary prerequisites for improvement of provided service in healthcare system. The main goal of this study is to focus on specific changes in pre-gradual preparation of nurses during the second half of the 20th Century in Czechoslovakia that contributed to the more complex approach to patients and improvement of quality of the provided nursing care. The author draws of the study from historical sources and studies of nowadays historians whereas she examines them according to historic-critical study and plot analysis. Key premise of providing high quality nursing care is represented mainly by qualified preparation of nurses in pre-gradual education, necessity of their career management, suitable technical and material equipment, safety working environment, team cooperation and holistic approach to the patients as well as satisfaction of their need. The fundamental part of this study is dedicated to in-depth analysis of important changes in nurses’ professional education and focuses on the crucial changes in conception of nursing schools after the WW II in Czechoslovakia. Attention is paid to educational process of
qualified teachers at of Higher nursing school of the Czechoslovakian Red Cross in Prague and also to changes of this process after the year 1989. The conceptual changes made at nursing schools and colleges after 1954 all together with establishment of institutional education of qualified teachers and their university education contributed to quality enhancement of provided nursing care.

Key words: quality, nursing care, education, history, Czechoslovakia, second half of 20th Century.

Sources and methodology
Historical sources, archive materials, that time newspapers, magazines and literature as well as studies of nowadays historians who cover this specific field were used during the elaboration of mentioned issue. The methodology was based on examining of work of relevant authors upon their historic-critical study, plot and comparison analysis.

Conclusion
The scientific and technical progress during the 19th Century significantly influenced the development of medicine in the first half of 20th Century. The doctors were not only devoted to the preventive, diagnosis-therapeutic care but also to conduction of research that was realized in laboratories, medical institutions and other clinical workplaces. The research in the field of medicine was based on laboratory results, clinical observation and results researches in other scientific fields, mainly chemistry, physics and theoretical medicine. These facts contributed to specialization in medicine, construction of new diagnostic instruments and to development of pharmaceutical industry. (Falisová, 1999)

Higher standards and requirements for education of doctors and nurses were set in place hand in hand with the higher development of medicine. During the interwar period the preparation and education of nurses provided by more skilled colleagues and doctors did not correspond with the uprising standards of modern medicine and nursing care. The key reasons for conception of institutional pre-graduate nursing education were the need for assistance to doctors during more complex diagnostic procedures, healing methods, satisfying the patient’s needs and maintaining the basic operation of medical facilities. Therefore the interwar period
is characterized by establishing and enlarging of nursing schools and colleges. (Morovicsová, 2005)

The continual development in medicine after the WW II solicited for transformation of nursing schools that went under jurisdiction of Ministry of Health since 1954 as 4 year secondary schools and remained in this structure till 1989. The that time changes and discoveries in the medicine projected to the curriculum of each field of studies at nursing secondary schools. Increase of pretensions for conducting of nursing care demanded rapidly for changes in education of nurses – instructors that became later on qualified teachers at nursing high schools. In the interwar period the professional preparation of nurses – instructors was realized in short term courses. The institutional preparation of nurses – instructors began in 1946 when The Higher Nursing school of The Czechoslovak Red Cross Higher Nursing School of the Czechoslovak Red Cross when a specialized one year study for nurses – instructors and nurses for managerial positions. This institution provided the education of nurses till 70s of 20th Century only with slight organizational changes. Rising standards for nursing care, necessity of team cooperation and the status of nurses in the healthcare team were in attention of numerous specialists and doctors. Therefore during the 70s of 20th Century the establishment of university education and preparation of qualified teachers for secondary nursing schools took place. This studying program was firstly proposed to be distance, later on in daily attendance form and lasted until 1981. The constitution and development of nursing care as scientific discipline brought about changes also in pre-gradual preparation of nurses. Joint standards for preparation and education of regulated occupation of nurse were answer for proposed questions related to social preparedness, maturity and status of future nurses.

Discussion

Education of nurses during the interwar period in the first Czechoslovak Republic

The professional training of nurses was provided by nursing schools that were established according to act no. 139 of Austria Ministry of Interior published in 1914 about nursing care of patients in hospitals. These schools were focused on preparation of diploma nurses for providing nursing care in hospitals, medical institutions and in families. This studying program was two years long, while in the first year the study was focused mainly on tutorial
activity. The second year was dedicated to practical exercise that took place in clinical environment and children’s clinic. The requirements for training of future nurses were becoming stricter and concluded in increasing number of taught subjects in curriculum. As Kleinchnitz (1935) argues in 1921 there were taught 14 subjects, during the years 1936 and 1948 the number increased to 23. The accent was put on mainly on practical preparation that represented up to 80 % of studying time, whereas the main 4 practical departments (internal medicine, surgery, dermatology and gynecology) were extended to 29 that clearly covered a larger scope of the practical exercise. The hour load that nurses spent at one department was from 45 up to 180 hours. [Wiltschková, 1971] The education of nurses was conducted in theoretical part by doctors, in practical part by skilled nurses from praxis, later on by nurses – instructors.

**Preparation of nurses – instructors during the interwar period**

In the time of establishing and constitution of nursing schools the nursing technique and praxis were taught by so called school nurses who were carefully selected from capable and skilled nurses. The professional training of nurses was considered later on by specialized courses for diploma nurses. Some of the school nurses passed other courses in England designed for teachers at nursing schools and nurses in managerial positions. The desire for high qualified nursing personnel was increased after the WW II significantly and lead to spreading of nursing schools networks. What is more in 1947 there were 26 State Nursing Schools in the Czechoslovakia. [Morovicsová, 2003]

**Activities of Higher nursing school of Czechoslovak Red Cross (VOŠ ČSČK) in Prague**

Elaborative nursing praxis and the focus of nursing schools doubtlessly demanded for constitution of some institution that would conduct professional preparation of school nurses. The Ministry of Healthcare with the ordinance no. VIII/2-53333-17/12 1945 from 21st December 1945 approved the Company ČSČK establishment the Higher nursing school in Prague. (Annual Report VOŠ ČSČK, 1946/47) The school was training also head nurses for managing work in nursing. The studying program consisted of theoretical and practical preparation and was designed for one year period. The curriculum was based on three main pillars according to coverage of their preparation. Main subjects were called management of nursing schools, managing of nursing care in therapeutic institutions, insurance companies
and clinics and finally social – healthcare service. The subject matter of theoretical preparation emphasizes large scope of studying program and connection of theoretical with practical preparation. Due to the active participation of trainees in particular field this field became pivotal for them and trainees were requested for their own tutorials, demonstrations and seminars. One year studying program was designed for 40 up to 42 teaching weeks. From the overall hour load 580 hours was dedicated to theoretical preparation and 1200 hours to practical exercise.

Following enlarging of nursing school’s network asked for qualified teachers that came from praxis background. The School act no. 95 from 1948 and no. 47 from 1953 did not solve qualification or pedagogical education of nurses – instructors. The only institution that educated nursing teachers – instructors was above mentioned the Higher nursing school of Czechoslovak Red Cross. It overcame several changes that concerned the duration and name of studying program, except its curriculum that remained almost unchanged. The activity of Nursing school took till 1965 [Roušarová, b.r.]

In the following period during the years 1966 up to 1971 the basic pedagogical seminar and the additional pedagogical education for nursing teachers for patients and practical exercise were provided by the Institute for Education SZP in Brno and Institute for Education SZP in Bratislava.

The activities of the Higher nursing school of Czechoslovak Red Cross significantly contributed to enhancing of quality of nursing care and praxis, opened a new possibilities in education of school nurses and nurses in managerial positions. The school largely influenced operation of each nursing schools and the quality of provided nursing care.

**University education of qualified teachers of secondary nursing schools**

The progress in medicine together with improvement of diagnosis, therapeutic and nursing methods in the second half of 20<sup>th</sup> Century requested qualitative changes in preparation of qualified teachers of secondary nursing schools. Establishment of university education was meant to ensure improvement of pre-gradual education of nurses. What is more it should evolve nursing as scientific discipline, improve the quality of provided nursing care in order with improvement of medicine sciences, actively contribute on monitoring of patient’s satisfaction, improve nurses’ social status and eliminate uneven education of pedagogical staff at the secondary nursing schools.
In the 1960 the university studying program was established at the Charles University in Prague tailored for teachers of nursing subjects at the secondary nursing schools. Several discussions between the Ministry of Healthcare and Ministry of Education took place preceding the establishment; however the Czechoslovakia became second country in which university education of nurses was present. This mentioned program later on served as template for similar studying programs established in Germany (1967), Poland (1972) and Hungary (1975). The program established at the Charles University in Prague was structured as 2 field studying program, psychology – nursing techniques in and was tightly co-organized with the Faculty of Medicine of the Charles University in Prague. This issue was in center of attention of several authors like J. Neuwirth, M Staňková, M. Váňová, I. Kočová and others.

The first attempt in Slovakia in the field of university education of nurses was made a year later, in 1961, and had the same structure as the Czech twin. The home faculty was the Faculty of philosophy at the Comenius University in Bratislava while the practical preparation was conducted by the Faculty of Medicine of the same university. To graduate in this studying program in distance form was quite difficult. Several problems had occurred during the education process such as lack of material and technical equipment, personnel, elaboration of curriculum, leadership of thesis or various problems during tutoring of medicine and nursing subjects. This was proved by notes of the Department of Psychology or Dean’s Office of Faculty of Philosophy and notes from the Dean’s Collegium of the Faculty of Medicine at the Comenius University. [Minutes of meetings of the Department of Psychology at the Faculty of Philosophy CU, Comenius University Archive, Minutes of special meetings of the Dean’s Collegium of Faculty of Medicine CU and Minutes of meetings of the Dean’s Collegium of Faculty of Medicine, Comenius University Archive]

At the Faculty of Philosophy only one cycle of mentioned studying program took place. The key reason of the downfall was the persisting lack of material and technical equipment, not sufficient amount of personnel and unclear concept of the studying program. However the realization of the first and only cycle of this educational program chalked out the direction of improvement in secondary nursing teachers’ qualification.

The university preparation of teachers of nursing subjects at secondary nursing schools was in Czechoslovakia provided only in distance form of studying program during the years 1966 and 1981. In addition it was cooperated by Faculty of Medicine and Philosophy at the Charles University in Prague. The beginning stage of the program psychology – nursing technique
was also signed with some difficulties such as absence of experience with such specific type of studying program. Therefore it was essential to make some initial changes. In the 1963 the change of name of approbation subject nursing technique to nursing care for patients occurred. The curriculum had not been changed much, however more efficient dividing of subjects and learning took place. During the academic year 1971/1972 studying combination psychology – nursing care for patients was changed to combination pedagogy – nursing care for patients. The main reason of this was the range of application of psychology at the secondary nursing schools. Most of the first graduates of this study chose the subject of their theses connected with the psychology and later pursued a careers in various psychological consulting rooms. The mentioned studying combination was better for fittings of nursing teachers’ preparation and most of them had closer relationship to pedagogy than to psychology. [Váňová, 1991]

Distance type of studying program conducted by the Faculty of Philosophy at the Charles University in Prague pursued the same difficulties as the daily twin. The problems were connected mostly with realization, personnel and with maintaining appropriate quality level of the program. The issue of establishing daily attendance studying program for nursing teacher at secondary nursing schools was rising ahead. Daily attendance studying program pedagogy – teaching of specialized subjects for nursing schools was finally established in 1980 after many discussions and meetings.

The most significant changes of university education of nursing teachers in Slovakia happened during the academic year 1981/1982 when the new of a king studying program Pedagogy – nursing care for patients was constituted at the Faculty of Philosophy of Comenius University in Bratislava. This step opened a totally new stage of university education of nurses – teachers of nursing. The studying program was realized in daily attendance and distance form that finally increased the number of graduates – teachers of specialized subjects at secondary nursing schools.

The necessity of university education of nurses working in clinical praxis at managerial positions became ravenous in the end of 90s of the previous century. One field nursing studying program was established in 1986 at the Faculty of Philosophy at Charles University that was later initiated also in Bratislava and since 1992 also at JLF UK in Martin. The curriculums of the mentioned programs were constantly reevaluated while the practical utilization of the studying program and its best possible realization was constantly seeking.
Changes made in education of nurses after the year 1989

The changes made in education of nurses after the year 1989 were influenced mostly by effort to improve the quality of provided complex healthcare for both sick and healthy people. The educational system had not changed after 1989 in the area of Czechoslovakia. Therefore some initiatives were looking for possibilities how to implement EU directives that constituted minimal standards of nurses’ qualification. These directives also specified requirements for admission to studying programs and contextual changes in education process.

Tendency for transformation of educational system of nurses that would correspond to current changes in healthcare system and society influenced the clinical praxis at the turn of 90s last century only in little way. College education of nurses in daily attendance ad distance form was constituted in 1994 on specific secondary nursing school according to legislative changes based upon new approved concept of nursing. Both type of studying programs were finished by a final school leaving exam while nurses-graduates obtained diplomas and were legitimated to use title dipl. nurse.

Significant modifications of University Act enabled the advance in education of nurses. These allowed to realize university education of nurses in every degree, in first degree as bachelor’s studying program, in second as master’s studying program and in third as doctoral (post gradual) studying program.

Post gradual education of nurses was realized in several ways. Nurses with bachelors degree could improve their qualification with specialized and certification studying programs. Systematic and lifetime education of nurses became a crucial part of post gradual education and enabled nurses to maintain specific quality of their qualification in praxis. [Regulation of the Slovak Government no. 743, 2004]

Conclusions

Assessments of quality of nursing and healthcare together with appraisal of factors that implicate its level had and still have a special purpose. The quality of provided services is tightly connected with appraisal of elements that enable optimally satisfy the patient’s needs. Assessment of nursing and healthcare is based on several aspects i.e. how successful it is upon the health condition of patient, how it is perceived by the patient or are the sources used by the process effectively. [Farkašová, 2001]
The level of nurses’ and medical staff’s education is one of the key factors that might influence the quality of provided nursing services. It is in the main concern of European countries to develop special systems of education of medical staff that would provide such knowledge that the staff will be able to provide the best possible services in order within the newest scientific findings. The reform made in education of nurses in the second half of 20th Century in Czechoslovakia was invoked by several aspects. Firstly it was the development of science and technology, modern medicine. Secondly the reform strictly respected the EU directives for nurses’ education and the necessities of that time society. The reform constituted a base stone for appraising of professional training of nurses that undoubtedly improved the quality of provided healthcare. This is just one of the factors that maintain assigned premises of high quality healthcare and nursing care. Other factors are represented by material and technical equipment in medical facilities, personalities of nurses or their social status. Assessment and searching for their optimal utilization demanded and still demands a systematic approach.

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This paper was prepared within the solution of project VEGA 2/0097/10 Social preconditions and implications of development in science and technology in the Slovak Republic during the years 1918–1989
The paper is of a high quality and is suitable for publishing.

**DIGNIFIED DYING**

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**Abstract**

**Introduction:** Dignified dying is characterized by respect for the dying, an appropriate environment for the dying in order to sharing the grief and emotions associated with dying, ensuring comfort and decision making for the dying, the close of personal matters before death. **Aim:** The goal of our study was to use the Dignified Dying Tool to evaluate the providing of hospice care for dying patients. **Material and methods:** We found out empirical data using the Dignified Dying Tool and we came out from Brokel & Hofman study [2005]. **Results:** We confirmed The Dignified Dying tool allows to evaluate hospice care for dying patients. The average outcome score in hospice admissions was 2,66, during hospice care in pre-finem 4,01, which gave us evidence about fulfilment of the goal for dignified dying on high level. **Conclusions:** The Dignified Dying Tool is suitable for hospice care evaluation of dying patients. It offers the measurable criteria for characteristics of dignified dying e.g. needs and expectations of dying patients, the elimination of pain and other symptoms causing distress for patients, the verbalization of grieving and fear of loss and death. The nurses can evaluate hospice care and find out if it is in concord with the needs and expectation of the dying.

**Key words:** dignified dying, hospice care, Nursing Outcomes Classification (NOC)

**Introduction**

The Council of Europe recommendations for the protection of human rights and dignity of the terminally ill and dying [Council of Europe Recommendation no. 1418/1999] state that "the greatest desire of most dying patients is dying in peace and dignity with comfort and support of family and friends. The duty to protect and honor the dignity of the terminally ill or dying persons is based on the inviolability of human dignity in all stages of life. Respect and protection are expressed in adequate environment security, allowing a person to die with dignity."
In nursing, this problem occurs in the International Classification of Nursing Practice (ICNP) and also in Nursing Outcomes Classification (NOC). The International Classification of Nursing Practice [2001] Beta 2 version defines dignified death as "the type of mourning with special features such as: feeling of sadness (suffering), and the grief of separation from life processed through mourning and sharing his own impending death, awareness of reactions and emotions, expressing feelings of loss, acceptance of dying, sharing losses with significant others, expressing expectations of the impending end of life." The classification system of Nursing Outcomes Classification on dignified dying, with the code number 1303, is accepted as positive and expected outcome of nursing care for patients in the final stage of life. It is stated in the psychosocial domain of health (III), Psychosocial adaptation category. It is defined as "maintaining personal control and comfort during approaching the end of life" [Nursing Outcomes Classification 2004]. Dignified Dying is characterised by respect for the dying, an appropriate environment for the dying in order to sharing the grief and emotions associated with dying, ensuring comfort and decision making for the dying, the close of personal matters before death. The respect to needs and wishes of dying eliminate the devastating pain and other annoying symptoms of dying and allow the expression of sadness and fear of loss and death.

Aim

The study aim was to evaluate the hospice care, providing for dying, by using the Dignified Dying Tool.

Material and methods

We used the Dignified dying Tool to collect empirical data, as useful method for evaluating the care of dying patients. The nurses, participated on study, observated and interviewed their patients in hospice by using the Dignified Dying Tool [Brokel-Hofman 2005]. We included, into recording sheet, ten resulting criteria for dignified dying: the expression regulation of symptoms, the expression of pain relief, the manifestation of peace, the expression of affection, the support, the achievement of meaningful goals, the participation in decisions, the control choice of treatment, the discussing about spiritual experience, the layout issues, the expressing readiness to die. Each of these criteria was defined with a description of the behavior of patients and their families. The nurses rated on a scale of 1-5, with 1 indicating no stage presence and 5 very high incidence rate. From the original methodology [Brokel 2000], we have disabled the final criterion - control the choice of treatment. We took the social and
cultural differences. The average scores were calculated in total for all criteria and for each of the nine criteria separately, on day of patient’s admission to the hospice and at the time of hospice care before death. The find out score was compared. We evaluated the achievement the goal dignified dying. Results are presented in absolute numbers.

We included fourteen patients with incurable disease with limited survival time, in consultation with the doctor. Of the total, 12 patients with cancer, mean age was 77 years.

**Results**

Based on the frequency of evaluation criteria for nursing goal dignified dying, we see how often the resulting criteria were evaluated (Graph 1).

![The frequency of the resulting evaluation criteria for the objective of dignified dying](image)

Graph 1 The frequency of the resulting evaluation criteria for the objective of dignified dying

The resulting criteria, no. 1-3, are focused on the physical aspect of patient care - minimizing physical distress (pain, nausea, vomiting, anxiety, dyspnea, restlessness, depression, fatigue) that often accompany patients in palliative and hospice care. In the context of palliative and hospice care, the symptoms cease to have a protective function, but often become a permanent
stressful reminder of advanced disease. The highest possible quality of life of patients in hospice care involves to inhibit or at least mitigate the pain and annoying symptoms. [O ’Connor-Aranda at al. 2005] These criteria were evaluated in our study daily. The resulting criterion no. 5-9 on the psychosocial problems: layout issues, achievement of goals, decisions and spiritual areas that are desirable to ensure a dignified dying were evaluated less frequently. They were assessed at least the final criterion no. 5 and no. 8 aimed at achieving meaningful goals and layout issues. We consider the difficulties in collecting data on this issue because it is an intimate matter and personal thing in our conditions for a long time. Furthermore, the nurses reported an inability or difficulty the patient’s verbally express what in all cases were associated with disease progression, deterioration, disorientation and later there was a disturbance of consciousness and nurses did not consider these issues for providing care as a priority at that time.

**Evaluation of outcome criteria for goal dignified dying**

<table>
<thead>
<tr>
<th>The outcome criteria</th>
<th>The average outcome score - hospice admission</th>
<th>The average outcome score - hospice care, before death</th>
</tr>
</thead>
<tbody>
<tr>
<td>the expression control symptoms (1)</td>
<td>2.69</td>
<td>4.53</td>
</tr>
<tr>
<td>the expression of pain relief (2)</td>
<td>2.92</td>
<td>4.64</td>
</tr>
<tr>
<td>the manifestation of peace (3)</td>
<td>3.14</td>
<td>4.57</td>
</tr>
<tr>
<td>the expression of affection, support (4)</td>
<td>2.25</td>
<td>3.91</td>
</tr>
<tr>
<td>the achievement of meaningful goals (5)</td>
<td>2.75</td>
<td>4.00</td>
</tr>
<tr>
<td>the participation in decisions (6)</td>
<td>3.40</td>
<td>4.80</td>
</tr>
<tr>
<td>the discussing about spiritual experience (7)</td>
<td>2.60</td>
<td>3.60</td>
</tr>
<tr>
<td>the layout issues (8)</td>
<td>1.75</td>
<td>2.25</td>
</tr>
<tr>
<td>the expressing readiness to die (9)</td>
<td>2.25</td>
<td>3.38</td>
</tr>
</tbody>
</table>

Tab. 1 The resulting criteria for an objective assessment of dignified dying in hospice care

**The expression control symptoms (1)**

In assessing the final criterion for control of symptoms should be based on the number of annoying symptoms of the patient. The level 1 indicates the presence four or more symptoms. The stage 5 means absence one of the annoying symptoms. [NOC 2004] The resulting average score for the criterion expression control symptoms, the average score was changed. The patients score in admission time was 2.69, representing a low degree of control
symptoms. The average score at the hospice care, before death, was 4.53 and it indicates of coping with annoying symptoms of a high rate. Brokel, Hoffman [2005] in their study of the state income averaged 3.02 and before dying patients in hospices (or at home with the support of mobile hospice units) 4.74. Symptoms of advanced disease reduces the patient's quality of life, so seeking hospice team is eliminated or at least minimize their presence. The assessment we used the annoying symptoms of Edmonton Symptom Assessment System (ESAS). Represents a range of assessments of nine symptoms: pain, breathlessness, fatigue, drowsiness, nausea, appetite, anxiety, depression, comfort / discomfort. [Fink- Gate 2006]

The Expressing pain relief (2)

The pain is present in varying degrees for 80 to 90% of patients with life-threatening disease and is one of the most feared symptoms in relation to the dying. Hospice admissions guarantees that his pain will be minimized. If the disease was at an advanced stage, or if the current status of the patient did not allow to establish verbal contact with the patient, we used a pain scale assessment by Abbey. [O’Connor, Aranda at al. 2005] The average final score for the final criterion 2 - Expression of pain relief, the income amounted to 2.92 and hospice at the time of hospice care before death, the mean score of 4.64. While hospice care for dying there was pain relief to a large extent. During his stay in the hospice patients were implemented strategies to minimize pain, including pharmacological (administration of analgesics, opioids and adjuvants) and pharmacological methods (physical and psychological methods). The results achieved by Brokel and Hoffman [2005] were monitored in the following result: the average income was 3.42 and 4.93 before his death. Optimal evaluation of hospice care is linked with good managing pain in patients. [Fink, Gates 2006]

The expression of peace (3)

The evaluation expression of peace require the monitoring of patient behavior: whether it is peaceful, resting during the day or vice versa, is restless - constantly shouting, stone, moaning. Condition where the patient management particularly restless (yelling, "dregs" around, stone) is a stressful experience for the patient and his relatives. The communication may prevent the family members leave unpleasant memories of the last period of life of their loved one. [O ’Connor, Aranda at al.] The average score for the hospice patient's income constituted 3.14. The patient or family member in hospice care is focused on providing support through presence, listening to the patient, family. We have to use clear
communication, ensuring a safe environment, the presence of familiar objects, listening to music, use of compensatory aids (eyeglasses, hearing apparatus), the drug therapy, or use elements of basal stimulation of team members. The goal of treatment and nursing care was to get rid of unpleasant symptoms of the patient without the damped. At the time of hospice care before death the patient's mean score was 4.57. Brokel and Hoffman [2005] indicate an average score of 3.43 and 4.94 for death. As reported by Wilson at al. [2006], although the deadline was a dignified death for participating nurses familiar, but most preferred to use sign peaceful death. Therefore, assessment of dying a dignified final criterion includes expression of peace.

The expression of affection, support (4)

When this criterion nurses evaluated any involvement, the presence or isolation from family, to the full community support, including family, friends, neighbors, community. Relatives and others for patients of important people, have an irreplaceable role in an interdisciplinary team of hospice care. The average score at intake was 2.25. At the time of death, the mean score increased to 3.9. Brokel and Hoffman [2005] state when receiving 3.83 and 4.65 for patient death. Our set of patients were placed in hospice, in contrast, studies conducted Brokel and Hoffman [2005] was also in home care patients who receive hospice services mobile (50.5%). On the day of their entry into the hospice, was often present in only one family member, which in our case could contribute to lower scores at intake. Eight patients had during their stay in the hospice continuous presence of someone close, such as escort and was staying with the patient in a single room with extra bed. Although this kind of support from the nearest person and day visits to relatives in the hospice, to provide a better assessment of outcome criteria. We also implemented a strategy aimed at ensuring patient comfort, family information and emotional support.

Hospice nursing care is holistic, which is also reflected in the relationship between the patient, family or other important persons for the patient and professional. This relationship is of paramount importance particularly in times of emotional crisis, or impending death. [de Renzie-Brett, Heals 2009]

Achievement of meaningful goals (5)

The resulting criterion 5 achieving meaningful goals, the score was 2.75 for admission to the hospice. At the time of hospice care, the average score was 4.00 which represented a
high level of achievement of objectives. The scores of studies conducted in Brokel and Hoffman are on receipt of 3.50 and 4.00 at the time of death. In evaluating this criterion, the resulting scale ranged from no knowledge or interest in activities, the setting of unrealistic goals of finding meaningful objectives and requesting their support in implementing to achieve the objectives that were considered important to patients.

Important to respect the needs, wishes and expectations of patient survival for the remaining decent life and impending death [Coyle 2006]. To enable the patient to discuss what it has a residual life meaning, encourage him to be focused on realistic goals and closing the cases before death.

**Participated in the decision (6)**

In the event that the criteria we looked at whether the patient seeking / not seeking to participate in the decision and expresses the wishes and requirements for care. On receipt, the mean score of 3.40 which means sharing decisions in the middle level, at the time of hospice care, before death was average score 4.80 what indicated that the proportion of patients in decisions was increased. Brokel and Hoffman introduced the resulting criteria at the beginning hospice care and in hospice care before death, the values of 3.77 and 4.38.

The biggest patients concern are that they will not able to decide themselves. The hospice care supports autonomous decision-making patient care and nurses carried out in accordance with the wishes of the patient or family. It is important that patients are truly informed about their situation and options for care so that they can decide for themselves [Egan, Labyack 2006].

**Discussing the spiritual experience (7)**

The value for this outcome criterion was 2.60 in admission. The assessment of this criterion supposes a relationship of trust. We believe that an objective assessment of the patient on admission day is very difficult. It requires the right time, its enough, quiet environment and privacy. The satisfaction of spiritual needs is real accompanying. The patient has a right to choose a person for accompanying by himself. At the time of hospice care before death, an average score was 3.60 and presence this criterion in moderately level. The study Brokel and Hoffman introduced admission score 4.50 and in hospice care before death 4.75, what is a significant difference in comparing with our study. The priority needs are changing in the course of the disease. In the beginning the biological needs are met while continuing into the final phase of life come to the just spiritual needs [Svatošová 1999].
**Layout issues (8)**

The average score for income amounted to 1.75, was an indication for any occurrence. At the time of hospice care before death, the mean score for the alignment issues 2.25. We believe that criterion 8 and .9 to interact. A patient who comes to the stage of accepting death, is able also to organize your personal or financial affairs rather than one that does not allow the approaching death. We think that the overall low score when receiving patients due to the fact that patients receiving hospice to come in various stages of coping with the disease and difficult situations approaching end of life. This final criterion was made up Brokel and Hoffman [2005] together with the resulting criterion 7 and 5 frequently rated among the least. In their study, the intake score was 3.50 and 5.00 before dying patients.

**Expressing readiness to death (9)**

The average score for income amounted to 2.25 suggesting the presence of the final criterion 9 at a low level. While hospice care is important to be patient, always available to help him get further if he was himself ready for the next step on their inner journey. The patients who are ripe for an internal settlement, acceptance of approaching end of life, give the impression of serenity and peace. [Kübler-Ross 1995] At the time of hospice care before death, the mean score was 3.37 in patients, what corresponds to the presence of the criteria resulting in moderately. If we compare the results of the study Brokel and Hoffman, the intake of patients was determined and the average score of 3.04, for hospice care before death 4.18, while the final criterion 9 was identified in this study most often rated as the third criterion. In the overall assessment (meet all criteria) the care of patients in admission to the hospice, the mean score was 2.66. The evaluation of care while in hospice before death, the mean score was 4.01 in our study, what means the achievement the objective of dignified dying in high level. Based on the results, we can say that hospice care contributed to achievement the desired objectives - minimize suffering and ensure a dignified and peaceful death.

**Conclusions**

The care of dying is aimed to dignified dying. It reflects the wishes of patients and their families, and also the expected confirmation of palliative and hospice care. Assessment of outcome criteria for the objective of dignified dying, allows us to assess the extent to which this objective for dying patients is approximately, what is important for continued palliative
and hospice care. We recognize the limits of the study, but such an evaluation on dying care may be terminated only on the achievement of objectives but also on the quality of palliative and hospice care.

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Why ethics and bioethics of pharmacotherapeutics in elderly?

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Abstract

Medicine has become, and will continue to become, much more a science, not less, so that the physician of tomorrow will have to be more a scientific, not less. Nevertheless, the art of medicine remains, and the physician must continue to be wise and understanding with a deep respect for the patient as a human being. The secret of success in the care of the patient is still in carrying for the patient. Many factors can influence that patient’s response to a drug, including age of the patient, disease of the organs of drug elimination (kidney, liver), the concurrent use of other drugs, foods, and chemicals (drug interactions), previous therapy with the same drugs (tolerance), and a variety of genetic factors that can influence the kinetics and toxicity of drugs (pharmacogenetics). When physicians use several drugs concurrently, they face the problem of knowing whether a specific combination in a given patient has the potential to result in an interaction, and if so, how to take advantage of the interaction if it leads to improvement in therapy or how to avoid the consequences of an interaction if they are adverse. A potential drug interaction refers to the possibility that one drug may alter the intensity of pharmacological effects of another drug given concurrently. Finally, we must not only study the factual basis of clinical diagnosis and treatment, but at the same time work toward an equally difficult goal: To cultivate of a proper realtionship with each of our patients.

Key words: physician – patient – pharmacotherapeutics – ethics – bioethics
Introduction

Medical knowledge and practice are continually changing. We live, therefore, in an atmosphere of doubt and uncertainty, and make our decisions and take our actions on the basis of probabilities. Advancement in knowledge of clinical medicine is now mainly accomplished by full-time clinical scientists in medical schools and research institutes throughout the world.

Disease do not always present themselves in pure culture, and indeed the perspective of the clinical scientist can sometimes be skewed. Disease often tells its secret in a causal parenthesis. There is little room in therapeutic technique for the shotgun approach to drug administration. All drugs which have a proven therapeutic benefit may cause adverse effects.

The art of medicine and the science of medicine

Every student and practitioner of medicine should familiarize himself with the classic essay on The Care of the Patient by Francis Peabody (1927): “The practice of medicine in its broadest sense includes the whole relationship of the physician with his patient. It is an art, based to an increasing extent on the medical sciences but comprising much that still remains outside the realm of any science. The art of medicine and the science of medicine are not antagonistic but supplementary to each other. There is no more contradiction between the science and medicine and the art of medicine than between the science of aeronautics and the art of flying. Good practice presupposes an understanding of the sciences which contribute to the structure of modern medicine, but it is obvious that sound professional training should include a much broader equipment. The treatment of disease may be entirely impersonal; the care of a patient must be completely personal. The significance of the intimate personal relationship between physician and patient cannot be too strongly emphasized, for an extraordinary large number of cases both diagnosis and treatment are directly dependent on it, and failure of the young physician to establish this relationship accounts for much of his ineffectiveness in the care of patients. What is spoken of as „clinical picture“ is not just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded
by his home, his work, his relations, his friends, his joys, sorrows, hopes, and fears. Thus, the physician who attempts to take care of a patient while he neglects those factors which contribute to the emotional life of this patient is as unscientific as the investigator who neglects to control all the conditions which may affect his experiment. The good physician knows his patients through and through and his knowledge is bought dearly. Time, sympathy and understanding must be lavishly dispensed but the reward is to be found in that personal bond which forms the greatest satisfaction of the practice of medicine. One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in carrying for the patient" [Peabody 1927].

The physician and the patient

These beautifully expressed thoughts about the physician and his relationship to the patient are even more important to emphasize today than when they were written more than 80 years ago. Medicine has become, and will continue to become, much more a science, not less, so that the physician of tomorrow will have to be more a scientific, not less. Nevertheless, the art of medicine remains, and the physician must continue to be wise and understanding with a deep respect for the patient as a human being. The secret of success in the care of the patient is still in carrying for the patient.

The physician must always have a reasonably clear-cut indication for the administration of any drug. This implies that he knows what is wrong with the patient and which drug is the most effective. There is little room in therapeutic technique for the shotgun approach to drug administration. The haphazard administration of a large number of drugs is more likely to harm the patient than to benefit him. If the physician does not know what is going on, he is better advised to follow a course of watchful waiting. There are certain exceptions, usually related to life-threatening diseases, which do not permit sufficient time to reach a final diagnosis. For example, the patient with findings suggesting septic meningitis is treated with several antibiotics while awaiting bacteriologic confirmation of the presumptive diagnosis. No drug should ever be given until the physician has determined whether or not the patient is sensitive to it. If a drug sensitive exists, the fact should be noted prominently. The careful physician also avoids drugs which might further complicate his patient’s problem.
The selection of drugs to pharmacotherapy

There are several important principles in the selection of drugs. The physician must satisfy himself that a drug’s claim of superiority to others already available are justified by the evidence at hand. Many factors can influence that patient’s response to a drug, including age of the patient, disease of the organs of drug elimination (kidney, liver), the concurrent use of other drugs, foods, and chemicals (drug interactions), previous therapy with the same drugs (tolerance), and a variety of genetic factors that can influence the kinetics and toxicity of drugs (pharmacogenetics).

Special drug considerations in the elderly

The elderly suffer 2 to 5 times the frequency of adverse effects from drug therapy then the younger adult, and from 5% to 30 % of geriatric admissions to hospitals may be associated with inappropriate drug therapy [Beeson et al. 1979; Coleman and Dorevitch 1981; Braunwald (Eds.) at al. 2001; Hastreiter at al. 1982; Hayter 1981; Lenhart 1976; Novotný 2004; Sloan 1982]. Clinicians are often not adequately aware of the problems in geriatric drug therapy because of the following factors: a low level of suspision, ascribing symptoms to old age, more then one clinician prescribing for the client/patient, a failure to inquire about nonprescription drug use, atypical presentation symptoms in the elderly (e.g., higher pain threshold, more referred pain), a difficulty in communication (e.g., poor vision and hearing), and a lack of time necessary to adequately work up a geriatric patient. In addition, physiologic changes that are a natural result of aging profoundly influence drug therapy in the elderly even in the absence of disease [Dietsche and Pollmann 1982; Gilman at al. 1980; Lenhart 1976; Novotný 1998; Novotný 1999; Novotný 2001].

Before proceeding, so as not to inadvertently contribute to the stereotype ageism, it should be noted that the physiologic changes noted below occur in the average elderly patient (i.e., aging is a unique and individual process that occurs at different ages in different individuals). However, whereas the occasional individual may be found who is in better shape than a person one half of his or her age, for the vast majority of individuals the physiologic...
changes noted here are accurate [Novotný at al. 1999; Novotný and Novotný 1999; Novotný and Novotný 2000; Novotný 2001].

Renal function
Renal blood flow and the dependent mechanisms of glomerular filtration and tubular secretion are decreased in the elderly. There is also a reduction in the number of functioning nephrons. Consequently, drugs that are eliminated predominantly in unchanged form via the kidneys (e.g., digoxine, gentamycin, kanamycin, lithium, penicilin, sulfamethizole) will stay in the body longer and will have a longer half-life of elimination. If dosages are not reduced, overdosing will result at an increased frequency, as will the severity of adverse and side effects [Lamy 1981; Lenhart 1976; Pagliaro and Levin (Eds.) 1979; Steinberg 1981].

Composition of body mass
Several changes occur in the composition of body mass as a natural consequence of aging. These include increased fat (as opposed to lean) body tissue that can cause delayed onset followed by accumulation on repeated dosing with fat soluble drugs (e.g., barbiturates, diazepam, lidocaine), and reduction of heart, kidney, and muscle mass that can cause toxic blood or tissue levels of a drug when a normal adult dose is administered. Total body fluid also decreases as a percentage of total bodyweight, from 55 % in the younger adult to 45 % in the elderly adult [Lenhart 1976].

Volume of distribution
In patients who have congestive heart failure he volume of distribution of many drugs (e.g., digoxin, furosemide, lidocaine) is reduced so that a normal adult dose may result in toxic blood levels.

Another factor affecting the volume of distribution in the elderly is a significantly reduced albumin concentration. Thus, as noted previously for young children the concentratration of free (active) drug can be significantly higher than expected if a normal adult dose of a highly protein-bound drug (e.g., meperidine, phenytoin, phenylbutazone, warfarin) is administered to an elderly patient. Greater competition of drugs for protein-binding sites also exists in the elderly and the potential for drug interactions mediated is significantly increased [Lenhart 1976; Novotný 1999; Pagliaro and Levin (Eds.) 1979].
Hepatic function

The rate of some forms of hepatic metabolism (i.e., hydroxylation and conjugation reactions) for several drugs (e.g., acetaminophen, antipyrine) has been demonstrated to be significantly decreased (on average) in the elderly. This decrease is associated with longer half-lives of elimination for these drugs in the elderly. These findings are not generalizable to all other drugs, and it appears that most drugs are normally metabolized in the elderly. However, it should be noted that the elderly may be more susceptible to drug-induced liver toxicity (e.g., hepatitis caused by isoniazid) than are younger adults [Hastreiter at al. 1982; Hayes 1975; Lenhart 1976; Pagliaro and Levin (Eds.) 1979].

Drug receptors

As was the case for pediatrics, health care professionals have observed for some time that the elderly appear to be particularly susceptible or resistant to the effects of certain drugs (e.g., barbiturates). Most of these effects can be explained by the geriatric factors previously discussed, however, it has been postulated that these effects may be the result, at least the part, of decreased numbers of drug receptors in the elderly or of decreased responsiveness of some drug receptors in the elderly [Hastreiter at al. 1982; Pagliaro and Levin (Eds.) 1979; Playfer 1979; Ritschel 1976; Steinberg 1981].

Aging body systems

Because of the decreased functional reserves in a variety of body systems (e.g., cardiovascular, nervous, renal) and the resultant lack of a safety margin with which to cope with drugs effects, the elderly may experience more seemingly paradoxic drug responses and side effects than individuals in other age groups. These effects may also be the result of age-related changes in the structure, number, or sensitivity of drug receptors in the elderly [Steinberg 1981].

Interactions with multiple disease states

Multiple disease states and pathologic disease states caused by polypharmacy involving prescription, as well as nonprescription, medications are very common in the elderly.
Therefore, drug-drug and drug-disease state interactions are much more frequently observed in this age groups. Interactions involving psychotherapeutic agents that additively or synergistically depress the sensorium are especially troublesome in the elderly. They contribute to poor self-esteem in the elderly patient and to the significant number of elderly, who are inappropriately classified as suffering from senile dementia [Greenblatt 1982; Hastreiter at al. 1982; Lenhart 1976; Steinberg 1981].

**Geriatric dosing and administration**

Because of the factors previously discussed, special consideration for dosing and monitoring the effects of medications in the elderly are particularly important. Because these factors are relatively newly discovered and have not previously been given wide attention, dosing in the elderly is not as in the young. In the young specific dosages and general formulae have been extensively worked out, however, only for very few drugs has an exact dosage been identified for the elderly, and because of the multitude of factors affecting drug therapy in the elderly, the only questions that have been devised are as necessarily complex and laborious to use [Beauchamp and Childress 2000; Beeson at al. 1979; Garcia at al. 1981; Novotný at al. 1999; Novotný and Novotný 1999; Pagliaro and Levin (Eds.) 1979; Pagliaro and Pagliaro (Eds.) 1983].

**Principles of geriatric drug therapy**

Health care professionals should be aware of the following principles in relation to geriatric drug therapy [Mullen and Granholm 1981; Novotný 1997; Steinberg 1981]. The major factors that necessitate special considerations in geriatric drug therapy are:

76. polypharmacy,
77. multiple coexistent disease states, and
78. the natural physiologic changes of aging.

In dealing with these factors the health care professionals must keep the following points in mind:

9. *Is drug therapy necessary?*

10. *What is the therapeutic endpoint of therapy?*

11. *Is the drug therapy correct?*
12. Is the dosage correct?
13. Is the dosage form correct?
14. What adverse or side effects may occur?
15. What drug interactions may occur?
16. Is the drug correctly labeled and packaged?
17. Who is responsible for drug administration?
18. Is the patient compliant?
19. Can any of the patient’s other medications be discontinued?

Because specific drug therapy regimens have not been generally developed for the elderly, each of these principles will be briefly commented on and examples that may make the rationale for the principle more apparent will be presented [Mullen and Granholm 1981; Novotný 1997; Steinberg 1981].

Is drug therapy required? Often, drug therapy is not the therapy of choice. This is particularly true for the elderly, who because of the natural consequences of aging are more likely to have multiple medical conditions, each of which necessitates some form of therapy. In this regard health care providers (professionals) must use their knowledge and skills to determine if an alternate therapy may be used to treat the patient’s problem. Can a sedative-hypnotic drug be avoided if the patient receives increased physical activity, avoids caffeinated beverages in the evening, avoids large volumes of fluids near bedtime, or drinks a warm glass of milk at bedtime? Another example might be that an antidepressant drug can be avoided if voluntary visiting is arranged to decrease the patient’s loneliness if the medications causing the depression (e.g., reserpine) are stopped. However, old age should not be used as a criterion to withhold rationally formulated drug therapy that may improve the quality and dignity of life for the elderly [Lenhart 1976; Steinberg 1981].

What is the therapeutic endpoint of therapy?
Rational drug therapy should always be associated with a general goal (e.g., curing a condition, relieving symptoms, prolonging life) and a predefined endpoint that can indicate whether the goal has been (or is being) achieved. Quantitative measures (e.g., blood pressure equal to 130/90 mmHg) should be established to serve as indicators of the success or failure of drug therapy. Other measures may also serve as indicators that the drug therapy should be
reevaluated, or a timeframe (e.g., every 6 month) may be associated with this variable. Drug therapy should never be continued for an indefinite period without a definite timeframe for reevaluation [Novotný and Novotný 2000; Pagliaro and Levin (Eds.) 1979].

Is the drug correct?
Misdiagnosis particularly common when dealing with the elderly. Ideally, as more educational programs are designed to meet this need and as more geriatric clinicians begin practice the problem of choosing the correct drug will decrease. Commonly misdiagnosed and misprescribed conditions in the elderly involve: using a cardiac glycoside in elderly patients with dependent edema without congestive heart failure, using cardiac glycosides in elderly patients who had temporary or severe respiratory infection, but which resolved itself when the primary condition was treated, and using antipsychotic drugs in the elderly when their confusion is the result of their medications they are taking. Similar types of problems commonly seen in the elderly also include prescribing a drug that is the drug of choice for the particular disease state in a younger adult, but is contraindicated in the elderly patient because of the physiologic factors noted earlier. Also to be considered is whether the disease can be treated by a different drug with fewer or less severe side effects [Lenhart 1976; Novotný 1999; Novotný at al. 1999; Steinberg 1981].

Is the dosage correct?
As previously noted, specific dosages have not yet been generally determined for the elderly. However, in general we know that loading doses are often not needed and that smaller than normal adult doses are usually required to prevent toxicity because of the physiologic changes (e.g., decreased renal function, decreased volume for distribution (that occur as a natural consequence of aging. Some medications (e.g., antibiotics, diuretics) may need to be administered in higher than normal doses if the desired therapeutic response is not obtained. In general, therefore, the elderly often initially require more follow-up to adjust and titrate properly the drug dosage to their individual needs [Novotný at al. 1999; Novotný 2003].

Is the dosage form correct?
Some elderly patients find liquid dosage forms easier to swallow than capsules or tablets, and changing to liquid forms may significantly increase compliance. Sometimes suppositories may be preferred. One must check that the bioavailability is not significantly changed by changing the dosage form, and if it does to adjust the dose accordingly [Hastreiter at al. 1982].

**What adverse or side effects may occur?**
The health care professionals should not only know which adverse or sideeffects to look for, but should also see that the patient is properly educated about adverse and side effects. This should be done so the patient will be of what minor effects (and thus increase compliance), as well as be aware of what adverse effects should alert one to stop taking the medication and to inform the health care provider.

Orthostatic hypotension is particularly troublesome side effect for the elderly. It may cause a fall that often leads to a fracture femur and hospitalisation. Any antihypertensive drug, including the thiazide diuretics, may cause this effects. The health care professionals should caution the patient about the problem of orthostatic hypotension and provide instruction in measures that may minimized its occurrence [Hastreiter at al. 1982].

**What drug interactions may occur?**
Because of variety of factors, including polypharmacy and decreased albumin concentration, the elderly are at a particular risk of experiencing a drug interaction. In addiction, because of their decreased functional reserve (as previously noted), the probability of the interaction having an adverse effect is significantly increased in the elderly.

It is always necessary to be aware of possible drug interactions and of their potential severity (e.g., does the interaction necessitate a change in therapy, and if so, which drug which drug can be safely substituted?). The patient must also be carefully informed about which drugs and foods may interact with the drug and should thus be avoided [Hastreiter at al. 1982; Playfer at al. 1979].

**Is the drug correctly labeled and packaged?**
In addition to the usually required information (e.g., name of medication, strength, quality, dosage, name of patient, and name of prescriber) and auxiliary information (i.e., major potential side effects, activities, foods, and drug to avoid) the elderly patient often has other
special drugs labeling and packaging needs. Is the print on the labels large enough for the patient to read? If not, are directions available in his or her foreign language or is a responsible family member available who reads native (mother) language and can assist? Can the elderly patient open childproof containers? [Steinberg 1981].

*Who is responsible for administering the drug?*
Can the patient administer his or her own medication or is he or she blind or too disabled with arthritis to administer a parenteral medication (i.e., insulin)? Can the patient follow complicated multidrug regimens or is he or she too confused or forgetful to comply? Possible solutions to this problem are having a family member administer the medications, or developing memory aids (e.g., dosing cards, calendars, or containers) to assist the patient to remember when the medications should be taken. The community or public health nurse can also assist with administering medications in the home for the elderly. Finally, patients and nurses may find it helpful to use dosing regimens or longer-acting dosage forms that need to be administered only once daily (e.g., phenothiazines), once weekly (e.g., large doses of vitamin D for osteomalacia), or once monthly (e.g. fluphenazine decanoate) [Hastreiter at al. 1982; Lenhart 1976; Lerner 1982].

*Is the patient compliant?*
Estimates of non-compliance in the elderly range from 20 % to 80 %. If health care providers use the principles presented here in their practice the major reasons for non-compliance will have been effectively dealt with. In addition, health care professionals should ensure that the patient has been provided with both verbal and written instruction in relation to drug therapy and explain to the patient the importance of compliance. The patient should be asked to repeat the instruction in his or her own words to assess comprehension of the directions (i.e., the appropriate directions may have been correctly given, but this does not ensure that the patient understood them)
Health care professionals should also foster in elderly patient, according to his or her abilities, the concept of selfcare. Provided with proper education, patients should be assisted in assuming as much of the responsibility for their own self-care in relation to drug therapy as possible [Hastreiter at al. 1982; Lenhart 1976; Lerner 1982; Steinberg 1981].
Can any of the patient’s other medications be discontinued? Take advantage of that opportunity whenever evaluating a patient for new medications to reevaluate thoroughly the previous therapeutic regimen and to discontinue those medications (both prescription and nonprescription) no longer needed. Not only will this save the patient time, money, and trouble of taking an unnecessary medication, but this may also improve the patient quality of life by perhaps eliminating an unnecessary side effect (e.g., mental confusion) as well as decrease the presence of potential adverse drug interactions.

Whenever a medication is removed from a drug regimen the health care provider should ascertain if a change in dosage of the remaining drugs is necessary. For example, if medication that enhances drug metabolism (e.g., phenobarbital) is discontinued, then the dosage of another drug the patient is taking (e.g., warfarin) may need to be decreased to prevent toxicity, because it will not continue to be metabolized at the same rate. This same procedure should be followed whenever any medication is added to a drug regimen. For example, if a medication that enhances drug metabolism (e.g., phenobarbital) is started, then the dosage of another drug the patient is taking (e.g., warfarin) may need to be increased to obtain the same pharmacologic effect [Beauchamp and Childress 2000; Garcia et al. 1981; Gossel and Wuest 1981; Hastreiter et al. 1982; Lerner 1982].

Clinical diagnosis and the cultivation of a proper relationship with the patient

The physician should be aware, that exciting advances in medicine sometimes create serious new problems. Our therapy makes use of powerful drugs, all of which can harm. Few hospital patients receive less than half a dozen different medications. In addition to intrinsic toxicity, these can interact with each other to produce unwanted effects. Knowing when to stop a certain treatment is as important as knowing when to bring it into use. One of the most important qualities needed by today’s physician is ability to restrain curiosity. We should adhere to the rule that a potentially injurious diagnostic and therapeutic procedures should be carried out only when its possible benefit to that patient justified the risk. A test should never be done just for the sake of „thoroughness“...

Now finally, we must not only study the factual basis of clinical diagnosis and treatment, but at the same time work toward an equally difficult goal: Cultivation of a proper relationship with each of our patients [Renökl 2003; Strauss 1991].
Conclusion

Medical knowledge and practice are continually changing. We live, therefore, in an atmosphere of doubt and uncertainty, and make our decisions and take our actions on the basis of probabilities. Advancement in knowledge of clinical medicine is now mainly accomplished by full-time clinical scientists in medical schools and research institutes throughout the world. Diseases do not always present themselves in pure culture, and indeed the perspective of the clinical scientist can sometimes be skewed. Disease often tells its secrets in a causal parenthesis. The art of medicine and the science of medicine are not antagonistic but supplementary to each other. There is no more contradiction between the science and medicine and the art of medicine than between the science of aeronautics and the art of flying. Good practice presupposes an understanding of the science which contribute to the structure of modern medicine, but it is obvious that sound professional training should include a much broader equipment. The treatment of disease may be entirely impersonal; the care of a patient must be completely personal. The significance of the intimate personal relationship between physician and patient cannot be too strongly emphasized, for an extraordinarily large number of cases both diagnosis and treatment are directly dependent on it, and failure of the young physician to establish this relationship accounts for much of his ineffectiveness in the care of patients. What is spoken of as „clinical picture“ is not just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded by his home, his work, his relations, his friends, his joys, sorrows, hopes, and fears. Thus the physician who attempts to take care of a patient while he neglects those factors which contribute to the emotional life of this patient is as unscientific as the investigator who neglects to control all the conditions which may affect his experiment. Nevertheless, the art of medicine remains, and the physician must continue to be wise and understanding with a deep respect for the patient as human being. The secret of success in the care of the patient is still in carrying for the patient. The physician must always have a reasonably clear-cut indication for the administration of any drug. This implies that he knows what is wrong with the patient and which drug is the most effective. There is little room in therapeutic technique for the shotgun approach to drug administration. The haphazard administration of a large number of drug is more likely to harm the patient then to benefit to him. If the physician does not know what is
going on, he is better advised to follow a course of watchful waiting. Although there must always be ethical concern about experimentation in man, principles have been defined, and there are no longer ethical restraints on the gathering of either experimental or observational data on the efficacy and toxicity of drugs in adults. Therapeutics must now be dominated by objective evaluation of an adequate base of factual knowledge. Application of the scientific method to experimental therapeutics is exemplified by a well-designed and well-executed clinical trial. The sine qua non of any clinical trial is its control. There are several special considerations in the design of clinical trial if they are to be used to compare the relative effects of alternative therapies: 1. specific outcomes of therapy; 2. the accuracy of diagnosis and the severity of the disease; 3. the dosages of the drugs must be individualized; 4. placebo effects; 5. compliance, non-compliance; 6. ethical considerations. The physician should be aware, that existing advances in medicine sometimes create serious new problems. One of the most important qualities needed by today’s physician is ability to restrain curiosity. We should adhere to the rule that a potentially injurious diagnostic and therapeutic procedures should be carried out only when its possible benefit to that patient justifies the risk. A test should never be done just for the sake of „thoroughness“...

Concluding our few remarks to *some ethical problems of pharmacotherapeutics* we would like to recall a *great ideas of Albert Schweitzer*:

„*These is no higher religion than human service. To work for the common good is the greatest creed.*“

**Literature**


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To fulfill the criteria, the bibliography had to be modified.

PROTECTING THE HEALTH OF WORKING NURSES
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Summary
Starting points: Being a health nurse is one of the most difficult jobs, particularly in terms of physical demands. Many interventions require physical manipulation with patients afflicted by limited mobility. Protecting the health of working nurses assumes the nurses know about the risks of endangering their own health and take advantage of all possible means of ameliorating any adverse physical impacts.

Methods: Using questionnaires, 191 working nurses have been actively recruited in Slovakia.

Results and recommendations: We found out that 13% of nurses perceive their job as physically demanding at all times and 40% of nurses evaluate their job as physically demanding most of the time. A rather satisfactory knowledge about work health and safety has been reported by 71% of nurses. However, we discovered substantial gaps in actually practicing health-enhancing activities. We recommend that the correct procedure for lifting weight, which we describe, be implemented.

Key words: Nurse. Health protection. Work ergonomy. Patient. Weight manipulation.

Introduction
There has always been a need to care for the sick, immobile or otherwise physically disabled people. This job requires not only knowledge but also a sense of caring and of selfless help and so it have mostly been women that have had an inclination towards the role. Women find it natural to take care of children, sick people or the elderly. The nursing profession has evolved into the heavily regulated form it takes nowadays, requiring professionalism and excellent inter-personal skills. Being a nurse is demanding from both physical and psychological points of view. Daily patient contact and many medical interventions require physical manipulation with patients, who are often immobile or have limited ranges of motion. In order to protect the health of working nurses, in particular while they are
physically assisting patients, it is necessary that they are aware of all possible risks of incorrect long-term lifting and carrying of heavy weight, which can negatively influence their health, and that they make use of all possible means of minimizing these risks.

**Starting points**

Basic principles regarding health and safety for manual handling of loads is outlined in the European Directive 90/269/CEE. It is applicable particularly during activities which present a potential risk of back injury to workers, such as lifting, pushing, pulling or carrying of heavy weights. These articles are pertinent to the daily job duties of nurses, too. Discussing whether the patient’s weight can be classified as a „load“ in terms of this Directive is useless, as pure deliberation will not protect the nurses. It is critical to also account for, and follow, the statutory requirements given by the Government of Slovak Republic, Regulation 281/2006, regarding minimum health and safety provisions during manual handling of loads and those given by the Slovak Ministry of Health, Regulation 542/2006, regarding details of physical health and safety, psychological stress and sensoric pressure at work. Among other legislative pieces affecting this topic is Slovak Technical Standard 26 9036 – Work Safety; Manual Handling; General Health Requirements.

In Paragraph 2 Regulation 281/2006, manual handling is defined as any transportation or carrying of load, including carrying of people and animals, performed by one or more employees, and also lifting, supporting, storing, pushing, pulling or other activities causing movement of given load which, because of the load’s characteristics or because of unfavourable ergonomic factors, can endanger the health of workers, and especially if this can lead to back injuries. The negative impact of manual handling and physical labour in general is subject to evaluating whether or not the demanded activity surpasses physiological capabilities of the workers and endangers their health. These factors are related to the extent to which workers are equipped and prepared for the demanded activity. Overall fitness and individual capabilities are crucial for the execution of such a physically and psychologically demanding job as nurses do. Risk factors include manual handling, which can be potentially dangerous for the lower back, if:

- the load is too heavy, too large or too difficult to hold;
- the load is placed too far from the worker’s centre of gravity and therefore a trunk rotation is needed.
The abovementioned risk factors can be applicable to physical manipulation of a patient with limited mobility. The exerted effort may be excessive, may require trunk rotation or may require the nurse to adopt an unstable position. Protecting the health of nurses needs effective workload management, which includes prevention of health risks, effective technological arrangements and organisational action. The fundamental principle in health risk prevention during patient handling is to always ask for co-worker’s assistance, use an appropriate lifting apparatus and for transportation to use an appropriate transporting device. Nurses can damage their musculo-skeletal system, particularly in the back area, during activities such as lifting patients in bed, supporting patients to stand up and transporting patients. The issue of protecting the health of working nurses is elaborated in Article IV. (Health and Safety at Work, Working Environment and Working Conditions) of the Nurse and Midwife Code Practice, which is published on the website of Slovak Chamber of Nurses and Midwives.

Nurses and midwives have a right to:

- a working environment in compliance with health and safety regulations outlined in Paragraph 148, deriving from Paragraph 147 Regulation 124/2006 regarding employer’s responsibilities in terms of health and safety at work;
- a working environment, technical devices, working procedures and their utilization in compliance with minimum health and safety requirements for a particular job role in compliance with Paragraph 151 of the Labor Code and Paragraph 6 Regulation 124/2006 regarding health and safety at work;
- refuse lifting loads exceeding 15 kg in order to protect their health and ask for assistance in physically demanding load handling in compliance with Annex 2 Load Limits and Regulation 281/2006 regarding health and safety for the manual handling of loads.

Survey

The subject of protecting the health of working nurses forms a part of many lectures delivered as part of the post-graduate course of nursing at the Faculty of Nursing and Medical Studies of the Slovak Medical University in Bratislava. Those nurses who study for this qualification externally (part-time) are employed in Slovakia and are interested in enhancing their education. The majority of them work in nursing management or, alternatively, they are getting ready to enter such career. The nurses recruited for this study represent our focus group which has the ability to support full compliance with the current legislation and lead
other nurses to increase their work ergonomy in order to protect their health while at work. Our purpose was to empirically investigate whether nurses perceive their work as physically demanding, to what extent they are informed about work health and safety and whether they actively pursue activities enhancing their health. Although our conclusions are not representative, they enabled us to modify the content of university lectures to increase awareness of the need to protect the health of working nurses.

**Methods**

Throughout the years 2010 and 2011 we have recruited a number of nurses using unstandardized questionnaires. From the total number of 207 questionnaires, which we personally delivered to chosen nurses, we eliminated those that contained answers that were either incomplete or that were based on work experience outside Slovakia. We analyzed 92.3% of the answers provided, which amounted to a total of 191 questionnaires.

**Results**

Our respondents comprised 96% females and 4% males. The majority of nurses, 41% of the sample, were younger than 30 years. Nurses younger than 40 years comprised 34% of the sample, nurses younger than 50 years comprised 19% of the sample and nurses older than 50 years comprised 6%. In order to account for their work experience we asked respondents to state the number of years employed as nurses (not as medical assistants) and to subtract any time spent on maternity leave. Most nurses had less than 5 years experience in their job role. The second most common answer was less than 10 years experience. Number of nurses participating in this study was negatively correlated with their increasing age and job experience, which reflects the fact that it is mainly younger nurses that are interested in post-graduate study.

*Graph 1 Question: How long have you worked as a nurse?*

The majority of respondents work in hospitals, university clinics and teaching hospitals (37%), others work in hospital departments (34%), policlinic ambulatory care (11%), nursing
homes (10%), agencies offering nursing care at patient’s home (4%) or other places such as the armed forces, emergency services and health insurance companies (4%). Most of our respondents care for adults (50%), while others care for the elderly (26%), children (16%), newborns (4%) and other population groups (4%). We considered this segmentation important for evaluating respondents’ daily load handling duties. In terms of whether they perceive their job as physically demanding, straight-forwards answers yes/no were less common than mostly yes/mostly no – see

*Graf 2 Question: Is your job physically demanding?*

![Graph 2](image)

The answers to what extent respondents consider themselves informed about health and safety at work were positive – see Graph 3.

*Graf 3 Question: To what extent do you think you are informed about health and safety at work?*

![Graph 3](image)

Because most of our respondents claim to be well-informed about health and safety at work, we further inquired whether they actively try to enhance their health if they perceive their job as physically demanding. We discovered relatively substantial apathy in pursuing health-enhancing activities – see Graph 4.

*Graph 4 Question: Do you actively try to enhance your health?*

![Graph 4](image)
Discussion

Being a nurse involves several risk factors that may cause damage to the skeletomuscular system. A number of deficiencies in work health and safety have been uncovered during a labour union control in 2010. The most common complaints were associated with excessively heavy load handling that goes beyond the given limits (Report on the Activities of control over health and safety 2010). Demanding physical work in the context of nursing care is identified by 13% of nurses and an additional 40% adds that their job is rather strenuous, mainly in association with patient manipulation. This can subsequently lead to health problems, particularly in the musculoskeletal system. Recreational sport activities are recommended if the musculoskeletal system is stressed; more strenuous job demands should be carried out by properly trained professionals only (Labudová, Vajczikova, 2009).

In order to assist immobile or disabled patients on a daily, regular basis, it is often impossible to follow the recommended limits for weight and load handling. We believe it is encouraging that 71% of our respondents claim to be informed about proper work and safety. However, and rather surprisingly, a small number of respondents (6%) are not aware of this issue at all. Overall health is a result of the mutual impact of various factors, environmental and work-related, on an individual. Even though the effects of work and working environment are time limited in the nursing profession, they often cause quite intensive pressure. Therefore we ask what is the overall health of those nurses who claim not to be informed about proper work health and safety. In general, nurses spend little of their free time exercising. Regular and intensive health-enhancing activities are only part of a routine of 10% of respondents. 58% of respondents devote irregular time to such activities and 5% of respondents do not engage in any health-enhancing activities at all. The resulting (dis-)comfort nurses experience at work is a dynamic harmony of their physical abilities, work demands and individual requirements to exert more-than-usual physical effort to assist patients. During manipulation with patients, it is not only the patient’s weight that is relevant, but also the way in which they are being handled. If the correct lifting procedure is implemented, the pressure on intervertebral discs is smaller than if an incorrect stance is adopted and the load is so lifted. In this case the pressure can increase even ten-fold, resulting in back pain and other injuries. The aim of subsequent kinesiotherapy is to achieve maximum possible quality of life, self-sufficiency and re-integration and to regain lost or weakened functions as soon as possible (Poláková,
Husarovičová, Pluhárová, 2009). One of the starting points to prevent damage to the musculoskeletal system of nurses is their knowledge of safe technique to manipulate with patients. The current trend in nursing care is to eliminate the frequency and the intensity of vertical lifting and carrying of patients, to implement the correct manipulation techniques and to make use of all assistance available.

Conclusions and recommendations

Humans are neither weight-lifting machines nor freight-carrying units. Nurses and other medical staff should realize that every load handling exerts pressure on their posture and in particular on their spine. The application of ergonomic principles in nursing practice helps to increase work efficiency and to prevent work-related injuries (Gilbertová, Matoušek, 2002). As part of preventing injury and other health problems of nurses, load handling and lifting should be carried out in the least damaging stance for the spine (Havlová, 2010):

- hold the weight as closely to the body (its centre of gravity) as possible;
- before turning the patient, position him/her to the opposite side of their bed (Šajterová, Polhorská, 2008);
- involve muscles of the lower body, pelvis and abdominals, rather than the upper body;
- lift the weight standing astride with the back straight and use the power of the lower body muscles;
- keep rotatory motion and spine flexion to a minimum;
- ensure stability and balance, ideally by placing one foot slightly in front of the other and adopting a wider stance;
- be aware of the pressures, for example, while positioning the patient in his/her bed the nurse’s weight should shift from back leg to front leg.

Manipulating with patients in this way effectively reduces health risks for workers. It is important for nurses to adopt a positive attitude towards protecting their health at work. We could talk about an element of opportunism here – the nurse should change her stance according to whatever he/she prefers at any point in time and according to what causes him/her the least stress (Kristová, 2010).
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ADVANTAGES AND DISADVANTAGES OF ERASMUS MOBILITY FOR NURSING STUDENTS – ERASMUS COORDINATOR'S PERSPECTIVE

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Abstract

The University of Ljubljana joined Erasmus program in 1999. At the Faculty for Health Sciences we started with mobility several years ago but just in the last 2 years we have observed an increasing number of exchanges at the nursing department. In 2010, the number of outgoing students raised from 1 outgoing student that went in 2009 to 8 students that went in 2010. Students’ interest in Erasmus went up as we put more effort into promotion of Erasmus program, its advantages for students and options of available location/countries. The promotion was mostly made by ex-Erasmus students. Still, we observe some difficulties in decision making factors among our students. Main reasons for not deciding for Erasmus mobility are the lack of foreign language knowledge, low self-esteem and financial problems.

Nursing Erasmus students have the opportunity to observe another country’s health care system, to learn about political and educational systems, to be involved in the nursing process, to learn about another culture, to meet other students, patients, nurses and people. In this perspective Erasmus offers many benefits. On the other hand, the same factors may also be stressful.

The main disadvantage in most cases is that students do not know the language of the foreign country. Students from Ljubljana mostly go to Spain, Norway, Sweden or Belgium and they are good at English but many of the patients they take care of in the practice do not speak English. Therefore they have problems with the most important aspect of nursing communication.
Introduction

The name for Erasmus mobility program is an abbreviation for European Action Scheme for the Mobility of University Students. The history of the program goes back to 1980 when it started as a pilot study. From 2007 it is a part of a Lifelong Learning Program. Over 1.5 million students have participated so far with a goal of reaching 3 million by 2013. Erasmus, the EU’s flagship education and training programme, emphasises student and staff mobility and European co-operation involving higher education institutions and other key players in the knowledge-based economy. Together with an enriched study experience, Erasmus also provides exposure to different cultures. In addition to students, Erasmus also targets at teachers, trainers, and others involved in higher education (University of Ljubljana, 2011).

All institutions and countries have benefits with cooperation in Erasmus program. Their enrolment expands EU’s higher education space, gives meaning to the Bologna renovation system, especially with ECTS. Participated institutions are also placed to EU map building their own visibility and recognition.

The main difference in Erasmus mobility for nursing students is practice

Nursing study programs on first level require 50% of all study hours for practice. Practice in nursing is very important. Nursing student has to be trained in different skills, first on theoretical knowledge of anatomy, physiology, pathology, microbiology, fundamentals of nursing and afterwards students are taught practice. Students can have practice either in skill labs where they learn basics on models and in various health institutions where they deal with patients.

In the first study year students spend most of their practice time in skill labs. A skill lab is a special room equipped as a hospital room with one or more bed unites. Training is based on acquaintance with nursing process. Students are divided into smaller groups to train skills on each other (pulse measurement, doing occupied bed and others) or on models (urine catheter insertion, aspiration through inserted endotracheal tube and others). Training of
communication skills and completing the nursing documentation are also important (McCallum, 2007; Murray et al., 2008).

In the second and third study year the main emphasis is on training skills in health care environment dealing with real patients and their family members controlled by a mentor. Patient must be aware of and give consent to the student dealing with him/her. With vulnerable groups of patients students and mentors must pay special attention to human and patients’ rights. Every time a student deals with a patient, a mentor must be present and mentor’s role is also to decide whether the student can deal with the situation and if he/she can practice skills safely for the patient and also for himself (Jinks, 2007). We must never forget about ethical and legal aspects of nursing (Hajdinjak, Meglič, 2006; International, 2005). Furthermore, the mentor and the student have to keep in mind professional activities and competence in nursing (Železnik et al., 2008).

**Advantages of mobility for students**

Erasmus statistic and program presentation on websites states many advantages for students going on Erasmus exchange. In academic point of view, those students are about to be actively involved in study program of chosen school or faculty. They learn about new approaches in study processes which may be very different from those at home. Although the length of a stay may vary from 3 to 12 months, all Erasmus students observed the differences.

The next reported positive view is on student personality and personal growth. In the time spent in other country, a student must quickly adopt new situations, he/she meets new people, observes cultural and political differences, makes new friendships, learns a foreign language, finds new hobbies or sports and in spare time travels around the country.

Career and professional perspective are also important. With active involvement into working process a student deepens and acquires new knowledge. No less important is that a student can get positive evaluation and a recommendation for a future employer.

For nursing student mobility also brings some new knowledge and comparison on the health care system, nursing education system, nursing in practice, health care workers, team work,
mentorship and patients. In final reports all of our students gave positive scores on mobility itself and students gave the highest scores to practice 4.8 out of 5.

**Disadvantages of mobility for students**

The language barrier can be one of the reasons for students not deciding to go on Erasmus exchange. Some schools/faculties have adopted English courses or subjects for international students especially if they have high numbers of incoming students. But many study programs are still not adopted.

The involved institutions can provide Erasmus Intensive Language Courses (EILC) for two to six weeks for Erasmus students. This, however, is possible only for less widely used and less taught languages in the countries where these languages are used as teaching languages at higher education institutions (CMEPIUS, 2011).

In nursing programs the language can present a major obstacle since all nursing students are doing their clinical placement practice in various health institutions. The language barrier means that students and patients can’t communicate therefore a mentor has another role - to be an interpreter. Another problem can be health care workers who don’t want to have contact and communicate with foreign students. In this case faculty/school coordinator or mentor must act as a mediator and have to try to solve the communication barrier problem.

The next important issue for Slovene students is money. Erasmus outgoing students of University of Ljubljana get just approximately around € 350 scholarship support monthly. With this amount of money in some countries it is not even enough for accommodation. But we know that students have some more expanses for food, books, transfer, mobile phone, the internet and others. Costs can vary from € 500 up to 1000 per month. In that case our outgoing student has to have some savings or very financially supportive parents.

**Conclusion**

“Erasmus is the best thing ever happened to me” said one of our outgoing students. And really there were no negative points on evaluating sheets of our former Erasmus students. Excellent grades and praises to our students were given by their mentors or supervisors in partner’s institution. Somehow nursing students from our Faculty still are not very interested in
Erasmus experience. But as we have given more effort in promotion for the last two years the number of outgoing students has risen from former 2 to 8 in the last year. As we know that many times money is the key factor in decision making we familiarize first year students with advantages and disadvantages of the Erasmus program.

Health care institution should take participation in Erasmus program as a benefit and expansion of goodwill. Even a qualified nurse can get valuable information about another educational and health care system from a foreign student. Moreover, she can get the opportunity for communicating in another language which is not an everyday practice.

Most Erasmus students are ambitious and prepared to work hard. Thus, it is our job to focus their energy and enthusiasm in learning. As an RN, mentor and coordinator I can say that we have to promote mobility and encourage students to take this unique opportunity.

**Literature**


NURSING CARE’S QUALITY IN ELDERLY HOMES

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Abstract

After human beings became conscious they realized that life had various stages, the last stage was ageing. There was not much to do against ageing in ancient times, there was no need for it, because the difficulties of the existence and illnesses hardly made it possible to reach old age. However, people wished to live as long as possible. The average age of humans has tripled since time was counted.

It is not easy to define ageing itself. It is the third phase of life, the last one, where the functions of the body get worse slowly and continuously.

The goal of the research of ageing is multi-layered. The primary goal is to lengthen the maximum age of humans. The secondary goal is that more and more people could reach a higher age, thus the average age would increase. The tertiary goal is that ageing should be void of diseases and other problems.

In developed countries the average lifetime of the population gradually became longer in the last 50 years. Meantime the proportion and the number of births decreased, so the proportion of the young and the middle-aged also decreased, and the proportion of the old increased significantly in the age-composition of the population.

Slowing down the process of ageing, living a longer lifetime, sustainable health and life-quality are all questions which cannot be separated from the future picture of human life. Ageing is not only a process, but it is a task as well, it depends on the quality of the whole life. You should prepare for and plan your old age in good time. The health and social services keep in touch with the elderly people. Naturally the role of the family is very important; it has to provide things for them when the elderly are not able to look after themselves.

Key words: Ageing-population, holismus, life quality, social care, residential homes
Introduction

European societies are getting older. Elderly people make up the greater part of the population, they finished working, the active phase of their lives is over. But they are still ahead of the last phase of their lives, which they would like to spend in a useful, satisfactory and meaningful way. The rate of elderly population is lower in neighbouring countries and in other countries of the Central European region than in Hungary. However, the indexes of age distribution are different in most of the European Union membership countries (Bagyinszkiné, Kovács, Péntek, 2007).

In the following years European societies will face the effects and problems of an enormous increase from the demographic ageing. In general European people live longer, have fewer children and want to retire earlier than a decade ago. Most experts agree that these processes will lead to a significant unbalance among the generations starting in 2010, which is the time when the baby-boom generation starts retiring, and this phenomenon is called the overturn of the age-tree (Czibulka, Lakatos, 1995). The unbalance will cause great changes in the labour market, in the social, provisional and protective systems, in the health care system and in the different processes of the social integration. As a result, the European social model, which is based on the health insurance worked out by Bismarck, will not be sustainable in the future, radical reforms and/or new conceptions, a shift of the paradigm will be needed in social policy (Iván, 2000).

According to this policy, caring about the elderly and about the ageing process should be laid on a much wider basis. It means that in the future the elderly cannot be treated as a group which is isolated in society with its special demands and needs for help any longer, but by involving all the areas of public policy, such as health care, education, social provision, health insurance and employment policy, a new strategy should be worked out, which is suitable for the sustainability of the provision system and for securing the social reintegration of the elderly at the same time. It is the strategy for an active old age (Nagy, 2000).

In Hungary, just like in other countries, not all elderly people are given the possibility to grow old in their own homes, they need constant care and assistance because of their condition, which their family relations cannot secure for them, so they spend the last phase of their lives in an institution, in a residential home (Imre, Fábián, 2006).
Aims

The aim of the research is to give a picture, analyze and compare the lives and quality of life of elderly people living in residential homes. We examined the lifestyle of elderly people living in residential homes, the reasons why they decide to move into these homes, how they keep in touch with their family members, friends. We also examined what kind of chronic illnesses they suffer from, what kind of aids they use to make their lives easier, to what extent their lifestyle changes by old age. Our aim was to assess their nutritional state.

Hypotheses

H_1  We assume that the number of female residents is higher than the number of male residents in the seven examined residential homes.

H_2  We assume that number of children of those who were surveyed is at least two, concerning two adults, namely a couple, and at least ensuring offspring is satisfactory.

H_3  We assume that the residents in the homes are visited frequently, their children and grandchildren visit them at least once a week.

H_4  We assume that the compulsory fee paid by the residents is 80% of their pension.

H_5  We assume that when the elderly people chose a home, it was an important aspect for them that the home was in the same settlement as where they had lived before.

H_6  We assume that the residents of the homes have been in retirement for at least 20 years.

H_7  We assume that the amount of the residents’ pension follows the national average.

H_8  We assume that most of the elderly people made the decision themselves to move into a residential home.

H_9  We assume that the most important expectation concerning the home was that nursing and care should be provided for the elderly.

H_{10}  We assume that the residents leave the building and go out now and then in order to keep up former relationships.

H_{11}  We assume that a lot of residents take part in the free time activities.

H_{12}  We assume that the life functions of the residents are not very good any longer.

H_{13}  We assume that the most common illnesses of the residents are the diseases of the circulatory system and cardiovascular diseases.

H_{14}  We assume that the residents’ nutritional state is satisfactory, they are not malnourished according to the results of the MNA assessment test.
We assume that the results will be different between the genders according to the MNA assessment test.

**Methods of the Research**

It is a descriptive research with the help of questionnaires. There were two questionnaires; one was developed by us, containing 31 questions, both open and closed questions, with 223 possible answers. The other questionnaire was developed by the Nestlé Nutrition Institute, called the MNA (Mini Nutrition Assessment) for the assessment of the nutritional state of elderly people. It consists of two parts, the first one contains 6 questions about screening, the second part contains 12 questions on assessing condition. All the questions were closed ones, and the elderly people could choose from more possible answers, thus there were 74 alternatives altogether. The gained data were processed with the help of Microsoft Excel and the SPSS research data analyzing program.

**Sample of the Research**

7 residential homes and 238 clients took part in the research, 179 women and 59 men. The total number of the residents in the 7 institutions is 260, but not everybody filled in the questionnaire, some of them were on holiday for a longer time, so they did not stay in the institutions. Altogether 22 people did not take part in the research; the participation rate is 91%. When we describe the research we take the data of the 238 participants as 100%. From the 7 institutions 3 are maintained by the local government, another 3 are maintained by the church and 1 is maintained by a foundation.

**The Sites of the Research**

The sites of our research were 7 residential homes in Szabolcs-Szatmár-Bereg County. These homes are also the sites of the practice work for geriatric nursing and care subject for the nurse students taking part in the BSc program. The residential homes in Balkány, Nagyhalász and Nyírpazony are maintained by the church, the residential homes in Napkor, Nagyhalász and Nyírtelek are maintained by the local government, and there is only one institution which is maintained by a foundation in this region, so we chose it to be the seventh site. All the homes undertook to take part in the research and in the comparison of the institutions, they had not taken part in such a comparative analysis before. They are looking
forward to the results and will be glad to use the gained data and results in order to improve the quality of their work. They will take the opinion of the residents into account when they draw up the plans for the care.

**Research Period**

The research took place in 2008; we interviewed 238 people living in residential homes. We did the analysis in 2009. We did the assessment ourself, some of the elderly residents were helped in giving answers by the nurses, carers and social workers working in the institutions. Meanwhile we talked to our consultant and asked for her professional assistance.

**The Results of the Research**

The distribution of the residents in the 7 homes according to gender is the following, 179 women and 59 men took part in the research, which means that 75% of the interviewed are women and 25% are men. According to their marital status, 51 are single, 187 are widowed, 11 are married women and 10 are married men. From the 238 residents, who were surveyed, 78% were widowed. The average age of the residents is 78,09. The average age of female residents is 78,28, the national average is 76,89. The average age of male residents is 78,16.

The 238 residents had 414 children altogether, from whom 57 have already died. 18% of the residents had only one child, 39% had 2 children, 16,8% had 3 children, 5% had 4 children, only 2 female residents had 5 children, and 1 female resident had 9 children. The number of those who did not have any children is quite high; they are 48 people, 36 women and 12 men, so 20% of the residents did not have a child. If we subtract the number of childless residents from the total number of residents (238-40=198), and add the number of their mates to it, we get 396. If we compare this number to the total number of children, which is 414, we get the child adult rate, which is 1,04. If we calculate the number of children only for the female residents, we get 1,12.

43% of the 238 residents (101) have children who live quite near their parent, within 0-10km distance, mainly in the same settlement, where the residential home is. 27% of the residents (65) have children who live within 11-50km distance, and only 7 residents have children who live more than 51km distance from the home. Although 43% of the residents have their children quite near, only 8%, namely 19 residents are visited every day. 20% of the residents are visited twice a week, 34% of the residents are visited once a week, in fact we could be
quite satisfied with this number, because it is one third of the residents. 10% of the residents are visited twice a month, 14% are visited once a month. There are 17 residents who are visited once in every quarter of a year, and 6 residents are visited once in every half a year. 5% of the residents (12 people) have not been visited since they moved in. From the 179 female residents 87 women (48%) have been pensioners for 21-30 years, 44 women (24%) have been pensioners for 31-40 years, 34 women (19%) have been pensioners for 11-20 years, and there are only 14 women who have been pensioners for less than 10 years. From the 59 male residents 23 men (39%) have been pensioners for 11-20 years, 18 men (30%) have been pensioners for 21-30 years, 16 men (27%) are relatively young and already need institutional placement, their number is quite high.

The Aspects of Choosing an Institution
30% of the 238 residents chose the institution because it is in the same settlement as where they had lived earlier. This is important for them because they can go back to their previous homes for a visit, they can keep in contact with former friends and relatives, their children might live nearby, and the research shows that 43% of the residents’ children live in the same settlement as their parents do in the residential home. Almost 10% chose the institution, because they were connected to the place somehow, their children or relatives live there or nearby.

13% of the residents chose the home, because there were no vacancies anywhere else when they needed a placement. For 6% it was important that there was no waiting list in the given institution. For 7% it was important that they did not have to pay a big amount of money as entrance fee. 8% of the residents chose the given institution because a friend of theirs or their spouse had lived there. In one case a parent moved in the home with her child. 9% chose the given home because they loved the surrounding and the furnishing, and these were the most important factors for them. Unfortunately, 17% said they had chosen the given home because it had been the only solution for them to get into an institution.

Who Chose the Residential Home?
From the 238 residents 132 (55,5%) chose the institutional placement for themselves. They are 25 men and 107 women. 19 residents have one child, 74 residents have more children, 39 residents do not have any children. For 106 residents (44,5%) others chose the placement in a
residential home. It was their children’s decision for 86 residents, 22 have only one child, 64 have more children. It was their supporter’s, wife’s, husband’s or parent’s decision for 20 residents. From them 3 have one child, 7 have more children, and 10 residents have no children. From the residents 187 are widowed (147 females and 40 males), 30 residents are single (21 females and 9 males), 21 residents are married (11 females and 10 males). From the 238 residents 44 have one child, 145 have more children, and 49 do not have any children.

**Expectations in Connection with the Residential Home**

The residents were asked what kind of expectations they had had when choosing a home. 45% chose the institution to get care and nursing, 21% wanted to get full provision, another 21% wanted to be loved in the home. 11% answered that they had wanted to live in a clean and tidy environment; they had needed peace and quiet around them. More than 6% chose the home because a friend or a relative or a child lived there or near the institution, and they wanted to live near them. More than 4% said that they had chosen the institutional placement, because they had wanted a home and had wanted to feel secure there. Only some residents said that they were disappointed with the home, they had expected something better and they did not get what they had wanted. Only one female resident answered that she had looked forward to moving in. 10% of the residents said they had not had any expectations in connection with the chosen home.

**How much do the Residents Move?**

From 238 residents 9 (3.7%) are bedbound, they are not able to leave the bed. They are 8 women and 1 man. 14 residents (5.8%) are not able to leave the room, they are 12 women and 2 men. 48 residents (20%) can only move inside the building, they are 35 women and 13 men. 117 residents (50%) are able to go to the terrace or to the garden, they are 89 women and 28 men. Only 50 residents (21%) are able to leave the home and go out, they are 35 women and 15 men. The residents were asked how often they left the institution. 43 residents (18%) have not left the institution since they moved in, they are 34 women and 9 men. Only 18 residents (7.5%) are able to leave the home every day, they are 10 women and 8 men. 44 residents (18.4%) leave the home once or twice a week, they are 30 women and 14 men. 133 residents (55.8) leave the building less frequently, they are 105 women and 28 men.
**Free Time Activities**

77% of the residents spend their free time by watching TV. 48.3% take part in the activities, which means that almost half of the residents participate in various activities. The third kind of activity is listening to the radio, 36% of the residents do this. 24% of the residents read books, magazines, daily papers and newspapers. Only 12 women can do needlework.

**Life Functions**

The residents were asked about their life functions. The research examined six life functions. From the 238 residents 55% have satisfactory eyesight, 26% have bad eyesight and only 19% have good eyesight. 43% have satisfactory hearing, 32% have good hearing and 25% have bad hearing. Only 15% have good movement, 40% have satisfactory and 45% have bad movement. 20% of the residents have good chewing, 61% have satisfactory, and 19% have bad chewing. 17% have good balance, 49% have satisfactory and 34% have bad balance. 35% have good orientation, 35% have satisfactory and 30% have bad orientation.

**Aids**

From the 238 residents more people use various aids in order to be able to satisfy their daily needs. 19% of the residents (37 women and 8 men) use wheelchairs to move easier. 49% of the residents (88 women and 29 men) use walking sticks. 56% (111 women and 24 men) wear glasses. Only 10% (20 women and 5 men) have hearing aids. 59% of the residents (113 women and 28 men) have false teeth or dentures. 41% of the residents (79 women and 19 men) have incontinency.

**Chronic Diseases**

From the 238 residents 81% suffer from circulatory disease, which is the most common disease. The second most common is the diseases of the locomotor system, 56.7% of the residents suffer from them. It is twice as frequent among women as among men, 62% of female residents and 39% of male residents suffer from chronic locomotor diseases. 19% of the residents have chronic disease of the digestive system, 18% have diabetes, and 17% have psychiatric disease. 11% have disease of the excretory system, 8.4% have chronic disease of the respiratory system. The disease of the respiratory system is twice as frequent among men.
as among women, 13% of men and 6% of women suffer from it. Tumour is the main fatal disease in Hungary, but fortunately from the 238 residents only 1,6% were diagnosed with it.

Nutritional Status
From the 238 residents of the seven residential homes 38 people (16%) are malnourished, the rate between women and men is about the same, 16% of the women and 18% of the men are malnourished. 100 residents face a high risk of malnutrition, their MNA test results are between 17,5 and 23,5. The rate between the genders is almost the same again, 42% of the women and 41% of the men. 100 residents’ nutritional state is satisfactory; the rate between the genders is the same, 42% of the women and 41% of the men.

Discussion
The subjects of the research were elderly people who live in residential homes for some reason and gave up there former dwelling places. The average age of the 238 residents (179 women and 59 men) is higher than the national average, their old age pension is also higher than the national average in the male residents’ case, in the female residents’ case it is a bit lower than the national average. The female residents’ average age is 8 years higher than the male residents’, so the rate of women is also higher than the rate of men among the interviewed residents. The data of the research prove that most of the residents have been pensioners for a long time, for 21-30 years, they make up the inhabitants of residential homes in the first place. As their age advances, they will need more help with satisfying their necessities, their self-care skills will decrease. The research shows that a lot of elderly people need to use certain aids to make their daily life and routine easier.

If institutional placement is needed, it is very important that the elderly people choose to move in a home themselves; they should understand that better nursing and care is provided for them in the residential home than in their own homes. Because of the decline of their physical and mental state, they need constant care, which can be provided for them only in institutional circumstances. Elderly people should be able to adapt to new surroundings, they should live an active life with their existing abilities, and they should preserve their mental and physical activities as long as possible. The staffs in the residential homes, the nursing and caring staff, the occupational therapist, the mental hygienist needs to possess huge organizational and communication skills.
The daily activities and occupation play an important part in the daily routine of the residential homes. This task requires well-qualified specialists. The doors of the homes are open, they let in people who want to help from outside the home, such as kindergarten children, schoolchildren and other groups. The residents are also taken out to other similar institutions, or on trips or to various programmes. It is important that the elderly people should be moved out from the institutions, they should experience the outside world in order to maintain their orientation abilities and follow the events of the outside world.

Naturally, the most essential is that the residents should be visited by their relatives and friends, and if their state makes it possible, they should be taken out of the institution. They prefer institutions which are at the same place as where they lived previously, in this way they can keep up the connection with their former lives, their relatives, friends live there, so it is easier to keep in touch. They primarily move into residential homes, because they need provision and care, they are not able to go on living alone, or the family cannot look after them any longer, for example, if they need a constant, 24 hour control, which their children cannot provide for them.

Looking after the older generation is the task and responsibility of the younger generation, but the support of the society, the health care, the social and economic sector is also needed.

**Conclusion**

The proportion of elderly people over 65 was 17% in the membership countries of the European Union in 2000. This number might reach 30% in the next 50 years (by 2050). By this time the oldest inhabitants will have had at least one chronic disease; they will have made up most of the total number of days spent in hospital.

These numbers prove that the care of elderly people must be organized. We can meet the practice of gerontological nursing in hospitals, clinics, residential homes, long term homes and day care centres for old people. Elderly people need special care. They have to live through the physiological and functional changes of their age. When these changes accompany with some chronic diseases causing deficiencies, the risk factors of complications increase, such as infections, injuries, traumas, breathing difficulty, degeneracy caused by the inability to use a part of the body, skin damage, locomotor disorders, just to mention a few. In this age-group the psycho-social behaviour changes. Elderly people experience many kinds of losses, so they need a special kind of care and support. Besides planning their care, we
have to define not only their problems, but we should see clearly how strong they are and what they are able to do. The challenge is enormous for the nurses and social workers. The interventions need creativity, patience and care. The essence of gerontological care does not only mean the lengthening of lifetime, but also how to realize the possible optimal lifestyle throughout the whole duration of life.

The results of the research highlight the fact that the residential homes do not employ well-qualified specialists, who should be responsible for the daily activities and occupation of the residents. The nurses deal with the free time activities besides doing their daily nursing duties. That is why one of the proposals of the research is that institutions with fewer residents should employ a part-time occupational therapist, while institutions with more than 30 residents should employ a full-time qualified occupational therapist.

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The impact of eHealth on the nursing documentation

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Abstract
Fundamentally, the expectation of every hospital's management is that health employees apply electronic health registers. Additionally, since 2003, hospital staff is required to prepare nursing documentation in Hungary. The documentation can be made either manually or electronically, but in most places both of these options are used. Due to the financing system and the ‘minimum basic data set’ principle, some data have to be available electronically in any case. Data collection and data processing are also important from the point of view of calculating European Community Health Indicators (ECHI) as well, since the final objective is to develop a System of Health Information and Knowledge in the European Union which is fully accessible both to European experts and the general public.

The aim of the article is to show how the use of the above-mentioned information system and eHealth may support the daily working routine.

We present the documentation handled with SSADM method and its potential problems in the Hungarian practice. We analyse the sectorial development plans of the Semmelweis Plan for informatics.

The use of eHealth’s solutions contribute to the reduction of unnecessary administration. Moreover, the final aim is to develop a system in which electronic health records are accessible throughout the borders.

Key words
eHealth, electronic patient record, nursing documentation, SSADM, Semmelweis plan

Definitions
eHealth is the overarching term for the range of tools based on information and communication technologies used to assist and enhance the prevention, diagnosis, treatment, monitoring, and management of health and lifestyle.
Standard EHR is the combination of data, allowing the administrative identification of the patient, the care provider and, the recording of any medical-health data that is created in the relationship between the patient and care provider, according to a common data model.

Standard eKonzilium is the combination of data, enabling the administrative identification needed for an examination, intervention or professional opinion requested by one health care provider (e.g. the patient's doctor) from another or for the management of the patient’s medical data during the medical attentandance of the patient or while processing the sample taken from the patient. Standard eResults are the combination of data that allow the administrative identification of response data given by one health care provider for the required examination, intervention and professional opinion requested by another health care provider (e.g. the patient's doctor) and the management of the necessary medical and health information.

Standard ePrescription is the combination of data that makes it possible to access to medicine, medical devices and products obtainable according to special regulations that the doctor has prescribed for the patient and which is necessary to maintain optimal health or to cure the patient.

Standard eReports are the combination of data, which allows transferring data that is necessary for covering the cost of any kind of health care provided to the patient by the health care provider.

Health documentation: a note, a record or any data recorded regardless of its form or media manager containing the patient's personal and medical data which becomes known by the health staff during the course of health care. [Act on Health Care]

Nursing documentation is a comprehensive, continuously updated documentation that contains patient-care activities carried out by the nursing team.

Introduction
Throughout the world there is a struggle in order to eliminate paper-based patient records and to have electronic data recording in all places.

The problems of paper-based recording are as follows:
• as a result of specialization, the patient is usually treated by several doctors, so the comparison of the data can only be made correctly with the help of computers,

2 EHR – Electronic Health Record
- the paper-based medical record is usually stored in one place, it is not available simultaneously in many places, data or the medical record itself may be lost,
- hand-written professional opinions or other data are not always legible, they can be easily misinterpreted,
- reliability of chronology is not assured.

EHealth covers the interaction between patients and health-service providers, institution-to-institution data transmission, or peer-to-peer communication between patients or health professionals; it also includes health information networks, electronic health records, telemedicine services, and personal wearable and portable communicable systems for monitoring and supporting patients. EHealth tools can, for example, contribute to the availability of potentially life-saving health information where and when it is needed—a crucial issue as the cross-border movement of citizens and patients grows. EHealth can deliver significant benefits to the entire community, through improvements in access to and quality of care. It contributes to citizen-centred health systems and to the overall efficacy, efficiency, and sustainability of the health sector.

The European Union is moving towards a “European eHealth Area”, coordinating actions and promoting synergies between related policies and stakeholders, so as to develop better solutions, prevent market fragmentation and disseminate best practices. Specific objectives are to create an electronic health record architecture by supporting the exchange of information and standardization; to set up health information networks between points of care to coordinate reactions to health threats; to ensure online health services such as information on healthy living and illness prevention; and to develop teleconsultation, ePrescribing, eReferral and eReimbursement capabilities. The success of this venture requires that citizens’, patients’, and health professionals' requirements and involvement are considered in the implementation strategies and projects. [European Community Public Health, 2011]

The goal of the electronic health record is to follow patient’s life. On the one hand, if someone visits a doctor, earlier test results become available, patients will not be required to bring or to repeat the test. On the other hand, the digitization of medical history would help in the patient’s future health care. .
The electronic patient record is the central component of the e-Health, this will make available the necessary medical data to doctors and patients. Possible applications: knowledge of the patient's health status, telemedicine, databases, international and regional networks in operation - of course all operations taking place online. What is quite new and by the help of which for the first time we were able to approve to health outcome benefit of eHealth is the telemedicine in the diagnostic, therapy and monitoring of cardiovascular diseases (e.g. heart failure) where „ICT for Health” UNIT at DG INFSO has shown that telemonitoring of patients at home could reduce the mortality with 34%, and decrease the hospitalization 26%. Very few people are aware that telemedicine saves people and money.

There is also the question of gathering medical records in a hospital: IT can put together a lot of patient data and provide evidence if a procedure or drug is really efficient or not. So eHealth can really change the way of getting information about evidence and can give an answer what is the best and most cost-effective by the help of gathering data. Somehow it is a dashboard of information that never existed before. Nobody could go and read thousands of medical records. [Interview with Mr. Ilias Iakovidis about the eHealth week conference, 2011]

**Material and methods**

In Hungary, Inter-ministerial Committee on Informatics recommends SSADM (Structured Systems Analysis and Design Method) system analysis and system development methodologies and techniques for elaborating data models and data dictionaries.

In essence, the SSADM applies entity relation technique. By using this technique the sectorial information demand model can be constructed. The resulting data model is based on logical level, and produces information that is required for the operation of the participants of the sector. The entity represents any object or concept that is relevant to the sector in which data should be treated because of the sectorial activities. The property of the entity is called attribute. The incidence ranges are allowed for the attribute values, validation rules and format control. (e.g. code systems, coding rules)
Contact refers to the relationship between two entities, which applies to both sides of every possible occurrence. Rectangles represent the entities with the short name in the Figure for data structure. The connection is marked by a solid line.

The degree of relationship:

- is represented by a single line, if a component of an entity is associated with one element of the other entity
- is represented by a single line with a trident/leister in the end, if a component of an entity is associated with several elements of the other entity.

A simple example for a structure diagram:

![Diagram]

The figure means that a person may get several medical attendances in his life in a healthcare provider institution.

The complete data model consists of:

- data structure diagram,
- descriptions of the entity,
- descriptions of the relationship,
- descriptions of the attribute (with incidence ranges).

The method divides the information system’s development work into separate units and flexibly accommodates various applications.
Data modeling begins with the analysis of the existing records, data collection and assessment of the operating information systems. Data modeling is complemented by consultation interviews and structured discussions.

The obvious starting point for assessing the actual situation may be the official statistical data collection, they contain data (entities, attributes and relationships). It is especially important to assess the data collection in order to comply with international obligations.

The main task of the sectorial data-base management is to provide uniformly accepted and well-known definitions for the entities and attributes that are shared by the participants in the sector, and designate the responsibilities and competence of the individual elements of data assets.

**Results**

Current status of the health care system in Hungary

Among eHealth services, we will only detail EHR that is the object of our investigation, and within that we will focus on the nursing documentation.

**Electronical medical records**

In Hungary, in compliance with applicable laws, regulations and standards, all physicians are required to keep computer records of patients’ data and they have to forward the report to the health insurance fund and social insurance companies by using a computer.
The patient's record is essential not only in connection with carrying out direct patient care tasks, but also in solving other (financing, quality control, etc) tasks. Therefore, the following criteria should apply in any case:

51. we record each event, which is included in the diagnostic-therapeutic cycle,
52. we describe any activity that is correlated with the patient,
53. the relationship between the data should be presented by exploring relationships, how they can support the physician's decision,
54. entering the data is only possible with recording the date of data input,
55. The collection and categorization of data is not only carried out in the interest of performing direct patient care tasks but also to display data in other specified formats (e.g. a list of patients in need of care, sickness benefit data, etc.),
56. entering the data is complete and reliable.

The data entry is perhaps the most delicate point of the patient's record, because the doctors are highly bound to paper-based processing, and it is difficult to achieve that over and above the mandatory data input that they use the records during the consultation. It should be noted that the number of physicians actively using the computer continuously grows, and this is due to the fact that the programs are increasingly tailored to the medical world, while the other required analysis is usually done automatically. Reliability of data depends on how relevant data will be input into the record.

Registration in nursing documentation

In addition to expert patient care, documentation of nursing care is a major task which is performed by the nurse in an independent function within her own competence. A well-compiled nursing documentation includes the information about the patient and environment on the basis of which healing care plan can be prepared.

Nursing documentation consists of:

B nursing history,
C care plan,
D nursing decursus,
E care final report.

The individual care and continued care units use different formal documentation, but all have the same content structure.
Situation of the nursing documentation in Hungary:

20. nursing documentation is not legally regulated in hospital care,
21. application may vary by institutions, based on internal regulations,
22. it is required by regulation in home nursing and GP services.

In Hungary, the keeping of nursing documentation is still not uniform. In addition to the obligatory nursing documentation, a wide range of other documentation is used to facilitate their work, depending on the institution and/or department.

This is the focus of our investigation. We analyze a well-functioning information system, how it reduces the number of documents.

_Daily tasks of a nurse_
The major events happened to the patient during the day are written into the transferring booklet. A nurse prepares a note about who will be operated on, who should get an X-ray, who should go on a blood test. This listing service is included in all health information systems. In order to facilitate their work the nurses often keep or produce documentations which are already available and can be printed provided the data is also included in the health care information system.

With the help of SSADM method we highlighted that information generated in space and time should be simultaneously recorded into 2, 3 or 4 places. The vital signs should be recorded in the temperature chart and in electronic records. The results of a laboratory test must be entered in the temperature chart, electronic records and nursing documentation. Since the data are stored on paper, in many cases data should be recorded in more than one site.

At present health workers are obliged to apply information systems currently operating in the institution and the introduction of e-Health would not assume an increased burden for
The elimination of paper-based documentation is a job organization issue. Generally it can be stated that all information is recorded on paper-based documentation in most departments. The nurses often make up for the shortfall in the electronic documentation later, often during the night shift. This philosophy should be transformed. *All information should be stored in and generated from the electronic health record.*

In case of applying electronic patient records, data are stored in one place but they are accessible from many places for further use.

**Discussion**

**eHealth in Eastern Europe**

To define unified standards is one of the main aims of eHealth for 20 years. „ICT for Health” UNIT at DG INFSO, European Commission is working on standard of patients’ summary and it is working on components of medical record that can be standardized.

**eHealth in the Czech Republic**

The IZIP electronic health record programme in the Czech Republic has hit its target of registering 2m users by the end of the summer 2010.

More than a fifth of the country’s population is now using the eZK (electronic health record) that allows patients to access their own health information - including information on visits, results and prescribed drugs - via a web based electronic health record. [Czech Republic registers 2m for EHR,2010]

The system now involves almost 15 000 physicians, i.e. more than a third of all health workers in the country.

The web-based electronic health records are a practical online partner for patients who can access their own health information. The system also allows the rapid sharing of valid health data between doctors and patients, as well as between doctors.

The eZk records are provided free-of-charge exclusively to those insured by the VZP (the largest state-owned health insurer). According to the latest statistics, every third client of the VZP has an eZk record.
It is the region of South Moravia that counts the most users of the records, with one in four residents, approx. 250 000 persons. [Czech Republic: eHealth Records System Now Counts 2 Million]

*eHealth in Poland*

The data of doctors, patients, drugs and diseases have to be registered by the Act on Health System. The Act on Polish Health Systems determines 1 of July of 2014 as a deadline for accomplishing the electronic registration of of physicians, patients, medicines and diseases. In Poland, Health Care System is mainly public task. The Health Insurance System consists of one National Health Fund and its 16 regional branches. The communication between different professionals concerning the single patients is mainly paper based. [Healthcare system and eHealth strategy,2011]

*eHealth in Slovak Republic*

Richard Rasi, Minister of Health introduced the strategic goals of e-Health in the Slovak Republic on March 19, 2009. The Minister of Health presented the main elements of the eHealth Programme:

- By the end of year 2011 the deployment of the eHealth 1.0. Establish a National eHealth Portal as service bus for applications. the National PHR, the eMedication / ePrescription and eBooking.

79. Between 2011-12 continue v1.0 priorities, change over from PHR to EHR, apply telemedicine, PACS, ePublic Health and Genomics, Citizens feel the first benefits of the introduction of the eHealth first quarter of 2011, the following benefits for citizens will be seen in the middle of the 2012th
eHealth in Hungary

In Hungary, the eHealth Programme encompasses a synchronized, coordinated set of projects to develop and distribute eHealth data models and communication standards (accepted as prestandards “MSZE 22800-1,2,3,4,5,6” by Hungarian Standardization Committee) with thesaurus and ontology method and technique based on a shared, common data model. The MSZ22800 standard was established for standardization of e-Health in Hungary. MSZ 22800:2008. Health care informatics. Reference Information Model,

- MSZE 22800-2:2004 – Health care informatics. eHealth Record,
- MSZE 22800-3:2004 – Health care informatics. E-Services,
- MSZE 22800-4:2004 – Health care informatics. E-Results,
- MSZE 22800-5:2004 – Health care informatics. E-Presciption,

The standards are all helping the administrative authentication and contain the necessary medical and health information, and a special certificate datas.

Steps of the Semmelweis Plan

The first step of the development of health information technology sector is creating a sectorial site, which will be the only credible source of industrial data in the future. This is necessary because of the needs-based capacity planning so that top-level decision-making would be based on credible data.

A second key area of IT development of the Semmelweis Plan is to reduce health care administration. The health workers would be unburdened by simplifying the administration, it is important also from the point of view of the patients as well, because of the shorter queues and reduced waiting lists.

Another planned electronic service is the electronic health record, which would replace the traditional paper-based medical record sheet. Data would be processed through the IT system, which makes health care workers’ job easier and more efficient.

The health care system would become more effective when bedside documentation system is realized that would make it possible to eliminate notes and double or triple data recording would also become unnecessary.

Therefore, great emphasis is placed on e-health, and older people who mostly stay away from Internet could be addressed with this. Telemonitoring could be introduced in the home of the
patients. Home care would be supported by IT tools, and there will be e-cards, e-prescription, e-health insurance card too.

It can be concluded that the Czech Republic is in the best position regarding the implementation of eHealth services among the examined Central European countries. Though it does not necessarily play a role in the development of e-Health, it should be noted that in the Czech Republic and Slovakia there are several health insurance companies while Poland and Hungary only have one National Heath Insurance Fund.

Data analysis functions
The results of the statistical work serve as a the basis for various statistical analyses, comparisons, in combination with other data processing results, over and above the simple aggregation. The indicators are calculated as a result of the processing. The indicators are calculated values that can be determined from several simple data. A simple example is the population-proportionate data for morbidity, mortality and health capacity value projected for 10 000 residents. It includes the chronological changes (trend tests), the spatial distribution of data, standardization, etc.

In the recent years, health care quality assessment activities have come to the front, which do not only cover hospital infections and committed medical errors, but it is also assessed what financial and human resources were used in order to solve a current professional task. As a result, the quality indicators are used to describe the quality of a work activity.

International data assets
In Hungary, National Institute for Strategic Health Research maintains an on-line database that contains approximately two thousand public health indicators and another that retrieves customised statistical tables from reports of hospitals and outpatient units.

The ECHI (European Community Health Indicators) was carried out under the Health Monitoring Programme and the Community Public Health Programme 2003-2008. The result is a list of 88 ‘indicators’ for public health field arranged according to a conceptual view on health and health determinants. Under the second Health programme (2008-2013), the ECHI joint action aims to consolidate and expand the ECHI indicator system towards sustainable health monitoring system in Europe.
Health indicators are sets of data (tables, graphs, maps) on health status, determinants and care in EU member countries. They allow for monitoring and comparison, and serve as a basis for policymaking.

Out of a complete list of 88 health indicators, there are over 40 core European Community health indicators for which data is readily available and reasonably comparable. [European Commission Public Health, 2011]

<table>
<thead>
<tr>
<th>ECHI indicators</th>
<th>EU member states</th>
<th>Czech Republic</th>
<th>Hungary</th>
<th>Poland</th>
<th>Slovakia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth</td>
<td></td>
<td>77,0</td>
<td>73,6</td>
<td>75,4</td>
<td>74,6</td>
</tr>
<tr>
<td>Infant mortality rate per 1000 live births</td>
<td></td>
<td>3,1</td>
<td>5,9</td>
<td>6,0</td>
<td>6,1</td>
</tr>
<tr>
<td>Practising physicians - per 100000 of population</td>
<td></td>
<td>354,6</td>
<td>280,6</td>
<td>219,1</td>
<td>300,0</td>
</tr>
<tr>
<td>Total number of practising nursing and caring professionals per 100000 inhabitants</td>
<td></td>
<td>1935,6</td>
<td>878,6</td>
<td>n.a.</td>
<td>n.a</td>
</tr>
</tbody>
</table>

Table 1 Some of ECHI indicators, 2007
Source: own work

The data collected by European Community can be displayed graphically too.

Illustration 3. Practising physicians – per 100 000 of population, time series of 49 years
Source: European Community Public Health, Heidi data tool, 2011

The selected indicators distinguish the results of EU15, EU25, EU27 Member States. Due to the shortage of time, in case of many indicators, only the data of old member states (EU15) are available (for example).
The introduction of a uniform data model is very important to compare the health status of each Member States.

**Conclusions**

The Lack of nurses is known throughout Europe, everyone is aware of the seriousness of this phenomenon. It can be said in almost all Central European countries that health workers have poor working conditions, low wages, and the number of health workers leaving the country is continuously increasing. For this reason it is essential to reduce unnecessary work done by health workers, thus increasing the satisfaction with working conditions.

The recently launched eHealth initiative should not only decrease cost and relieve the pressure on departments of the health care system, but it should also significantly increase efficiency and improve communication between practitioners, their patients, National Health Insurance Fund, and health authorities.

The data model design is not yet complete. Each Member State shall comply with the obligation to collect data, which requires the European Community. It is therefore possible that may grow the scope of the data.

Thanks to eHealth, doctors can access patients’ medical records more easily, get immediate access to test results from the laboratory, and deliver prescriptions directly to pharmacists. Patients with heart problems can carry monitors which alert their doctor if their condition changes, yet allow them to continue with their daily business.

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APPLICATION EFFICIENCY OF THE BASAL STIMULATION IN UNCONSCIOUS PATIENTS

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Abstract
The research topic was the application of selected elements from basal stimulation concept of comatous patients in intensive care nursing. In that prospective research, we develop standards of nursing care of selected elements of basal stimulation of the patient in coma and we verify their usefulness, practical benefits. We designed and verified form of the autobiographical history and observation form efficiency of basal stimulation in nursing practice and we fond nurses attitude to a possible application. Results of research were obtained by content analysis of documents, quasi- experiment, mental experiment, questionnaires polling and statistical methods. The research was done in period from January 2009 to May 2010. Knowledges of sisters showed the selection of elements for KBS verification in clinical practice, creating a draft form for autobiographical history, observation form for objectification and documentation of changes in health status. The practical recommendation includes continual use of proven forms of autobiographical history, developing and verification of nursing standards for other elements of the basal stimulation concept, promotion of the basal stimulation implementation to learning in nursing.

Keywords:
Introduction

Scientific and technological discoveries in recent decades reveal many mysteries of human life and forced mankind to think about its meaning and essence. Information technology and technical achievements have made work easier physically, but also brought surplus of technology, automation and dehumanisation to all spheres of public life, including health. Even the most accurate diagnostic tools, the latest medical procedures, new medicines and drugs can not replace as simple and at first sight "minor" acts such as smile, touch and word. Complexity as a typical character of modern nursing perception assumes holistic view of patient, systematic and targeted search of deficit biopsychosocial and spiritual needs, especially if the patient is unconscious, in immediate treat of life. A precondition of successful and meaningful work is the autonomy and the implementation of independent nurses interventions in particular. The challenge to complete the implementation of a comprehensive individualized nursing care is the concept of basal stimulation, which combines scientific knowledge of neurophysiology, genetics, psychology, physiotherapy and also considers the fact that the patient is mainly a man with his past and individuality. The concept of basal stimulation (CBS) has the possibility of wide application in many areas of health, particularly in intensive care. The advantage is, that it is a nursing concept which does not require special equipment and apparatus. The uniqueness of the basal stimulation lies in the combination of expertise based on scientific knowledge and humanity, which is conceived as a universal offer. Connection of humanism and professionalism outlines the vision of applying basal pacing in intensive care. CBS main objective is to provide patients the ability to navigate in and around his body. If CBS is included in to a nursing, significantly increase the quality of patients life and shortens stay in hospital. [Krištofová, Pavelová, 2004]. Due to the subject in hand, as a topic of research we set an application of selected elements of the concept of basal stimulation to intensive care nursing to patients in coma.

Selected research target

Based on the current state of knowledge of the field at home and abroad, we would like to deal with patients in impaired level of consciousness, the meaning of the universal implementation of basal stimulation as one of the concepts suitable for the provision of intensive nursing care.

Zrubcová, Schmidtová [2009] argue that one of the option of meeting needs and positive effect on patient quality of life is the application of the concept of basal stimulation.
Part of the objective was to design an autobiographical patient history form and an observation form and efficiency of elements of the basal stimulation concept of unconscious patients and their verification in practice.

Research methods

The specifics of the following study catalysed the selection of the research methods. We used a quasi-experiment in conjunction with thought experiments as the main research methods. This was focused on drafting an observation sheet, the autobiographical form to patient data and subsequent verification of their effectiveness, the use of the implementation of nursing care of unconscious patients. According to Boledovičova et al. [2009] advise, we quantified collected items statistically, using the Statistical Program for Social Sciences SPSS 11.0 for Windows and MS Excel. The findings in the individual items were processed by one-dimensional and spatially descriptive statistics - graphically and in frequency and contingency tables, where we expressed the relationship of monitored parameters. After analyzing of the absolute (n) and relative (f) proliferations a descriptive statistics was used to further analyse - the arithmetic mean, median, modus.

The research group consisted of 14 purposely selected respondents - patients. Criteria for classifying in to a research group comatous patient, level 3-8 Glasgow coma scale (GCS). All patients had secured their airways by invasive aproach via orotracheal or tracheostomy tube. Patients with sufficient spontaneous ventilation activity with adequate breathing gas exchange were breathing via Ayre T, which facilitates spontaneous ventilation without external support. Patients with insufficient or missing spontaneous ventilation were ventilated on assisted or mandatory ventilation, either volume or pressure controlled. All patients had fully monitored their vital signs: ecg, arterial blood pressure, hemoglobin oxygen saturation, pulse and respiratory rate.

Research Agenda

To create the right conditions, coordination and management of research activities, we provide the material conditions for application of the concept of basal elements. The research was conducted from January 2009 to May 2010 in different phases. We designed form for patient autobiography and observation data form. This first stage of our prospective research was based on results from inquiry made between the nurses in intensive care how to design
The most important and most challenging part of the research was quasiexperiment implementation into a clinical, intensive nursing practice. Obtained and classified data were prepared for processing and analysis. After the coding and entering data into MS Excel, they had been subjected to quantitative and qualitative analysis, synthesis, comparation and then statistically processed. As a final step in scientific-research process, we discussed obtained research findings, which is presented in the following chapters. Relevance and validity of the results we confronted with other authors in the debate, which formed the framework for the derivation of conclusion followed recommendations and estimated usability of the results.

**Interpretation and discussion of selected research objective**

The aim of this research was to design and verify in practice the autobiographical history and observation sheet of efficiency used elements of the concept of basal stimulation in unconscious patients.

Nurses selected the most appropriate **characters for evaluation of patients state before and after the application of selected elements on the basis of** logical continuity and facts. For objective observation of the patient they suggested evaluation of eyes and eyelid movement, limb movement, tidal volume, oxygen saturation, heart rate, blood pressure, change in muscle tone, salivation and peristalsis. They justify the choice with feedback loop systems of the individual human body systems and with possibility of practical objectification of documentation, which confirms the opinion Kapounova [2007], which states that the intensive care units are using sensitive monitoring systems and information technology. Readings are not only recorded, but also analyzed and stored in memory. Kapounova [2007, p. 18] further defines monitoring as "... the repeated or continuous monitoring of patient physiological functions ...". Sevcik, Black, Vitovec et al. [2003, p. 252] considered a detailed medical history obtained from patients or relatives as very important for further strategy and management. Brunke [2007] highlights the importance of autobiographical history in determination aims for individual care with exploitation of CBS elements. A biographical history of the patient is like a "compass" for clinical staff. Allows to see biography of the patient as important directional line and a structure which leads to a better understanding of the patient and thus its self-understanding [Dührssen, 2008]. Important for nurse is autonomous decision and clinical application of critical thinking in identifying of the patient's
problems [Gomolcakova, 2003]. History form was constructed on the base of distribution of needs within the intentions of nursing. According Kapounova [2007], individual care aimed at holistically perceived human beings with specific physical, psychological, social and spiritual needs which are influenced by environment and culture. Arbeit mit der biografischen Anamnesis [2006] recommends that the biographical history should contain personal data, current status, reason for admission to hospital and specific patient data (such as sleeping, or is left-handed, right handed, etc.). According Krištofova, Boledovičova, Polhorska, Czakova [2005] the patient care should be adapted to patient according his biography, not vice versa.

The fourth objective has been achieved.

Tab 1 Assessment of changes in patients after application of selected elements of the basal stimulation concept.

<table>
<thead>
<tr>
<th></th>
<th>SBS01/2009</th>
<th>SBS02/2009</th>
<th>SBS03/2009</th>
<th>SBS04/2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory rate</td>
<td>↓ 8 90</td>
<td>↓ 5 13</td>
<td>↓ 8 56</td>
<td>↓ 10 16</td>
</tr>
<tr>
<td>Tidal volume</td>
<td>11 20 70</td>
<td>53 32 11</td>
<td>11 20 70</td>
<td>25 30 22</td>
</tr>
<tr>
<td>Saturation O₂</td>
<td>1 11 89</td>
<td>0 40 56</td>
<td>10 37 46</td>
<td>12 41 24</td>
</tr>
<tr>
<td>Puls rate</td>
<td>6 0 95</td>
<td>59 0 37</td>
<td>67 13 49</td>
<td>49 12 16</td>
</tr>
<tr>
<td>Blood pressure</td>
<td>10 7 84</td>
<td>68 0 28</td>
<td>64 24 11</td>
<td>38 17 22</td>
</tr>
<tr>
<td>Muscle tone</td>
<td>12 8 81</td>
<td>86 7 3</td>
<td>55 26 12</td>
<td>47 9 21</td>
</tr>
<tr>
<td>Salivation</td>
<td>18 63 20</td>
<td>12 39 45</td>
<td>12 63 18</td>
<td>7 27 43</td>
</tr>
</tbody>
</table>

(SBS01/2009, SBS03/2009 – KSB elements with encouraging effect; SBS02/2009, SBS04/2009 – KSB elements with sedative effect; ↓ decreased, « no change, ↑ increased)

Assessed changes in patients unconscious following the application of selected elements of the concept of baseline stimulation were within the purview of positive, negative direction, if necessary. neutral (no change). With the encouraging elements (total invigorating bath and location "nest") is increased in most patients particularly value the respiratory rate, tidal volume, SpO₂ and pulse rate. In the soothing elements (overall soothing bath and position "mummy"), the majority of patients especially value decreased respiratory and heart rate, blood pressure and muscle tone.

Tab 2 Assessment of changes in patients after application of selected elements basal stimulation concept

<table>
<thead>
<tr>
<th></th>
<th>SBS01/2009</th>
<th>SBS02/2009</th>
<th>SBS03/2009</th>
<th>SBS04/2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limbs movement</td>
<td>17 84</td>
<td>39 57</td>
<td>44 49</td>
<td>69 9</td>
</tr>
<tr>
<td>Opening eyes, eyelids</td>
<td>57 44</td>
<td>49 52</td>
<td>39 54</td>
<td>56 21</td>
</tr>
<tr>
<td>Peristalsy</td>
<td>61 40</td>
<td>38 58</td>
<td>46 47</td>
<td>47 30</td>
</tr>
</tbody>
</table>


Assessed changes in unconscious patients following the application of selected elements of the concept of basal stimulation were present or absent. When encouraging elements used, in majority of patients movements of the limbs and opening the eyes, eyelids were recorded.
When the sedative elements used, the majority of patients have been reported with absent limb movements and absent opening eyes, eyelids. Evaluation of the relationship of CBS elements and changes in health status is not showing statistical significance at the chosen level of statistical significance alpha = 0.05 (5%). Prospective research has been influenced by several factors. The most limiting was the impact of therapy (parasympatholytics drugs, parasympathomimetics drugs, etc.) to manifestations of the patient autonomic nervous system. Factor affecting the results of quasi-experiment was also the fact of the individuality, the uniqueness of each patient, which in a given situation always reacts differently. Partial restriction was that not all nurses had completed a certificate course of basal stimulation. Selection criterion for cooperation and inclusion of nurses in research was an interest, willingness to cooperate and follow-up training for application of CBS elements in patient intensive care.

To kvaziexperiment realisation substantially impacted the organization and working system of unit, the implementation of diagnostic and therapeutic interventions in selected patients, the need for co-operation of a multidisciplinary team members, current patient health status changes and subsequent priority in the needs of patients. Research findings can be used in intensive nursing, nursing education in the narrow context of the specifics in the care of the comatous patient. Sketchy results can be viewed as suggestions for further research activities in development theory and nursing practice in the intentions of evidence-based nursing.

**Conclusion**

The issue this of research "is looking for" relationship of basal stimulation in unconscious patient in intensive care through standards of the selected elements of basal stimulation in nursing. The unconscious patient, in the most difficult stage of impaired consciousness, is unable to interpret stimuli from the external environment and respond accordingly. Early activisation and stimulation of the nervous system, speech and motor "dialogue" may provide "tools" of basal stimulation. Selected elements of stimulation can improve health status and prognosis of patients. The essence of stimulation is periodicity of realisation of elements using data of specific autobiographical history and with integration supportive persons. Friedlová [2007] offers to use techniques that support the development of patient identity, they stimulate the body's own perception and the outside world to interact with its environment, navigate in space, person, time and events. During the implementation of the overall encouraging bath and storage of patient to "nest" was recorded in almost all items.
change in terms of increasing the observed parameter. In the implementation of the overall soothing bath and deposit patient into the "mummy" was registered in almost all monitoring data change in terms of reduction of the monitored attribute. Direction of the project determined the assumption that if nurses have the appropriate knowledge, skills, elements of the KBS, it will affect the attitude towards its implementation in unconscious patients. Nydahl [1996] presents the provision of appropriate nursing care as a tool to eliminate "uncomfort" of patient in intensive care. Professional nurses have demonstrated ability to design the form for creating autobiographical history, observation form for practical objectification, documenting changes in health status and selection of components for KBS verification. "The fact that nurses are able to express what they are doing, they are making visible what has not been seen in nursing. If using a standardized language for documentation of care they provide, thereby building a database that will combine other care providers. It may also be an indicator of the effectiveness of nursing care "as an outline” [Vörösova et al. 2007, p. 9].

We recomend the promotion of basal stimulation implementation in to the nursing education. **Certified course of basal stimulation should be a granted part of postgraduate nursing education in intensive care nursing.** For nursing practice, we propose use of proven form of autobiographical history. We suggest further development and verifiing of nursing standards for other elements of the basal stimulation complex. Nurses should motivate other members of multidisciplinary team to application of CBS in intensive care. For Applied Research in nursing the hope of contributing to The verification of effectiveness of CBS elements application would be a perspective and interesting applied research object in nursing.

In conclusion we statue, that the research results confirm the positive relationship between the implementation of basal stimulation and changes in health status of patients. The concept has the great advantage, is not worth more than knowledge and willingness of nurse to help. In basal stimulation is important to realize that we do not analyze patient deficits, but the ability of the patient. This means that all who work with patients, must have knowledge about the patient's preserved ability to develop [Krištofová, Boledovičová, Polhorská, Czaková, 2005].

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# AUTOBIOGRAPHY OF COMATOUS PATIENTS FORM

## Name:

<table>
<thead>
<tr>
<th>Need</th>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIOLOGICAL NEEDS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td>Preferred drinks (coffee, tea, cola, juice …)?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preferred food</td>
<td></td>
</tr>
<tr>
<td></td>
<td>On special diet, restrictions ?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special ritual when eating?</td>
<td></td>
</tr>
<tr>
<td>Personal hygiene</td>
<td>Hot or cold water preference when washing?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preferred time of taking bath? (morning/evening)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brushing teeth (brush, electric brush, etc.)?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use of mouth wash ?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shaving – how often, (blades, shaving machine)?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use of toilet needs (sprchovy gel, dezodorant atd.)?</td>
<td></td>
</tr>
<tr>
<td>Excretion</td>
<td>Regular bowel opening ?</td>
<td></td>
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<tr>
<td></td>
<td>Any rituals related to excretions?</td>
<td></td>
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<tr>
<td></td>
<td>Problematic bowel opening ?</td>
<td></td>
</tr>
<tr>
<td>Sleeping</td>
<td>Preferred position when going to sleep, sleeping position ?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Using bed cover, duvet type, pillows ?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preferred sort of bedding textile?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sleeping problems ?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use of sleeping pills ?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any customs, rituals before going to sleep?</td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>Sport (what sort of sport)?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What is his working position?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What touch he does / does not like? Ktoré dotyky má/nemá rád?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Right or left handed Je pravák/ľavák?</td>
<td></td>
</tr>
</tbody>
</table>

## PSYCHOLOGICAL NEEDS PSYCHICKÉ POTREBY

410
<table>
<thead>
<tr>
<th>Pain resistance</th>
<th>Resistance to pain Ako zvláda bolest?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rest position when in the pain Vyhľadáva pri bolesti úľavovú polohu?</td>
</tr>
<tr>
<td></td>
<td>What is he doing when in the pain? Čo robí, keď má bolest?</td>
</tr>
<tr>
<td>Self realisation</td>
<td>What he would like to achieve in the nearest future (goals, ambitions)?</td>
</tr>
</tbody>
</table>

**SOCIAL AND CULTURAL NEEDS**

*Updated* in social and cultural events (TV, radio, press, music)

Who is allowed to visit him?

Special needs requests to environment (temperature, humidity, odour, light)?

Special sort of communication?

Special needs, differences related to his origin, confession?

**SPIRITUAL NEEDS SPIRITUALNE POTREBY**

Patients religion

Regullary visiting church/mass?

Possible request for sacraments?

**PSYCHOLOGICAL PROFILE**

Temperament (introvert, extrovert, sanguine, choleric, phlegmatic, melancholic)?

What does he/she fears?

What is he doing to feel well?

How are patient senses (vision, hearing, compensatory aids)?

Any special interests?

Any special customs?

Any addictions (smoking .. )?

**Important, impressive activities in recent period**

**Other important informations**

**Date:**

**Details given by:**

**Details noted by:** Anamnézu zaznamenala sestra:
Observation formulary of patient in coma

<table>
<thead>
<tr>
<th>OBSERVATION FORM</th>
<th>Name:</th>
<th>Date of birth:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBS element:</td>
<td></td>
<td>Number:</td>
</tr>
<tr>
<td>Admission date:</td>
<td>From:</td>
<td>Discharge date:</td>
</tr>
<tr>
<td>To:</td>
<td></td>
<td>Ethiology of coma:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GCS:</td>
<td></td>
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<tr>
<td></td>
<td>Before</td>
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<tr>
<td>Respiratory rate</td>
<td></td>
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<td>Tidal volume</td>
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<tr>
<td>Saturation O2</td>
<td></td>
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<tr>
<td>Pulse rate</td>
<td></td>
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<tr>
<td>Blood pressure</td>
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<tr>
<td>Muscle tone</td>
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<tr>
<td>Salivation</td>
<td></td>
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<tr>
<td>Limbs movement</td>
<td></td>
</tr>
<tr>
<td>Opening eyes</td>
<td></td>
</tr>
<tr>
<td>Peristalsy</td>
<td></td>
</tr>
</tbody>
</table>

Note results of yours finding in every fields before and after application of chosen prvku of basal stimulation concept

> PhDr. Ľuboslava Pavelová, PhD.

412
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FACTORS WHICH SHAPED STRESS MANAGEMENT OF PARENTS WITH MENTALLY HANDICAPED CHILD

Ludmila Reslerová, Dagmar Moravčíková
Department of Midwifery, Faculty of Humanities, Tomas Bata University in Zlín

Introduction
The child health is one of the highest values for each parental pair. His permanent disability is one of merciless traumas that may happen in the parents’ lives. This difficult situation managing brings many stressful moments. This is not possible to avoid them or to cope with them. Parents find themselves in lifelong encumbering stress.

Persons with disabilities have the same needs as other people, such as this is described in well-known Maslow's hierarchy of human needs. However it can happen, that the individual person cannot realize some of his important human needs for his impairment or failure of usual function or organ (Novosad, 2009). Nevertheless it can be assumed, that there are some different procedures, that contribute in the process of dealing with these pressures and they are an essential prerequisite for effective help.

Task
Exploratory investigation task was mapping the most important factors influencing the life of parents having a mentally disabled child. This is necessary to know the changes in their views and positions and their alignment of such a fundamental changes in their lives. This information is important for their recognition in order to establish operating structures of social services that can improve the life of parents of handicapped children. This is not only about the medical and nursing care, about educational actions offer or about the amount of social benefits, but this is also about the way in which these services are offered and performed. The different methods of professionals, trained in this field, are very important. Those can be improved without increase of financial resources.

Materials and methods
The questionnaire survey method was used to obtain the required information. It went during February-April 2011 in Zlín Niva Rehabilitation clinic and social therapeutic laboratory
Radost in Opava. Questionnaires were addressed to parents of children with mental disabilities, these were distributed in printed form and these were anonymous

Survey results

The way in which the parents cope with their child's disability depends on many somatic, psychological and social factors, on personality traits, on past experiences, values, health status, age, quality of partner relationship, number of children in the family, type and cause disability and the reactions of extended family and society.

Ability to manage tiredness relates to age and physical condition. Sleep deficit may arise if the child is excessively irritable or it is suffering from sleep deprivation and epilepsy. The affected child care is often associated with limited possibilities for rest and relaxation. Tired parents often reduces their interest, professional activity and contact with friends, because they do not have sufficient forces for these activities.
Availability of public assistance and social support has an important effect on the stress management. Casual networks of household and friends are the most effective source of support. They can be variously extensive. Maintenance of sufficiently strong social ties with relatives and friends makes it easy to manage problems associated with the existence of a disabled child. Mothers mostly feel their need to express their grief and need of friend person willing to listen to them and share their feelings. If other people do not want to listen to them, this is the most often the expression of defensive reactions of relatives or friends, who fail to respond adequately to strong emotional reaction of the mother. It should be noted, than the parents live in a world which does not recognize great value to disabled people. It reinforces them to feel failure and despair resulting from that. The development phase of the family is essential. Situation if young parental couple is different, if the affected child is the first descendant, unlike more balanced and experienced parents, for which the disabled child is the youngest of the siblings.
If one parent fails to situation, family gets the needed balance with difficulty. The balance is determined by the level of the weakest and most vulnerable person. Each family member may want to deal with the situation in another way. This is because that each person is unique personality with a specific life experience. Both parents are not burdened equally with caring for a disabled child; mother usually takes bigger responsibility for disabled child care. Parental roles are strictly differentiated in such families and they have traditional content every time. Birth of a disabled child makes consistently greater stress for mother than for father. Father is often active in the family and takes care of the affected child at least sometimes, but it does not reduce significantly mother's time spent with the affected descendant. She feels to be socially isolated in her position and moreover she can sorrow for poor support from partner and financial dependence on a partner, extended family or social benefits.

Fathers are usually only partially involved in the care of disabled child if at all. They do not solve everyday problems, also generally they are not considered to be guilty person of child handicap. Men often choose different solutions of this difficult situation than their partners. Men distance themselves in domestic problems. In extreme cases they leave the family.
Total dominant view to the existence of the mentally handicapped child family is important, because this is the main precondition for effective strategy in defensive reactions mobilizing. Family with a dominant tendency to deny or downplay of the problems, accepts affected child unlikely than realistically accepting family.

Family tradition makes an important part in relation to various forms of disease respectively the genetic basis of disability.

Various health’s, social and educational institutions can help for parents of disabled children. Employees of these facilities provide a wide range of specialized services. The amount of social benefits makes an important part in the form of grants to disabled person. Help and support by various institutions providing for parents of children with intellectual disabilities is - of course - very beneficial, but their workers can make stress. Communication and professional approach to solving problems is important for the satisfaction of parents. They mind most the supplicant role. They also must constantly ask for something, but their opinion
is not always fully accepted. Parents are often convinced than they did not get all the necessary information, or that this information is not understandable for them in a sufficiently comprehensive form. The difference between ideas and real help for parents shows that these institutions do not work well enough yet. It can also be done by unrealistic parent expectations and misunderstanding these workers possibility. Only few parents can recognize that his child often calls out ambivalent feelings in him, and they are not satisfied with their way of life.

Discussion

Chronic stress, which mentally disabled children bring to their parents, can make changes in various developmental stages. Parents will adapt to their situation over time and they learn how to manage their problems. A feeling of overload and extremely duties consistently distorts their personal well-being. Their performance is periodically associated with a feeling of very low effort efficiency.

Tedeschi and Calhoun (2004) formulated The Post-Traumatic Growth Model and they understand this growth as a positive change in cognitive and emotional areas that take place during personal crisis and the associated stress managing, in spite of its negative impacts resulting from specific processing of traumatic experiences.

Posttraumatic growth is the result of active efforts of extra load managing; this is why the emotional experience becomes better balanced and it is decreasing of angst, sadness and helplessness (Tedeschi, Calhoun, 2004).

Changes of life value and attitude, respect to the people and eventually the change of self make the result of post-traumatic growth.

Attitudes changing to their own life are necessary because they cannot be concentrated only for the success and for confirming their own merits and rivalry with others.

How much will parents change their values is depending on their personal assumptions, expectations of behavior, close people and the professionals with whom they are frequently in contact (Vágnerová, Strnadová, Krejčová, 2009).

Parents of mentally handicapped children of secondary school age and older have mostly gone through all the stages of coping with the disabilities of their child. They are usually well adapted to their situation and they achieved a life balance.
The Rate of load depends on the child's adolescence and the type of his disability. When we evaluated the relationship between the child benefit for the family and the load level at which it is linked to his upbringing, there is no doubt that it represents the greatest burden of the autistic child (lack of positive feedback, difficult communication, denial of physical contact). Cerebral palsy makes a medium load. Down syndrome is considered the least stressful, although the frequency of problematic symptoms increases with age even in these children (Keanrey, Griffin, 2001).

**Conclusion**

It is well known that people, who have spent a serious life situation, are more tolerant, forgiving, and empathetic, especially to those who are in the same or similar situation. Therefore they are willing to help others, but they learned also help accepting. Knowledge that their life experience can help someone evaluates them and gives them considerable importance. Therefore, parents of disabled children willingly help and advice to those less experienced. The paper deals with factors affecting stress management of parents who care for children with mental disabilities. Parents perceive their child's disability to the second; more important is their child alone.

Part of the positive contribution of adverse life situations can also be explained as part of the growth of parents, which occurs as a result of facing the negative facts. These adaptive changes (post-traumatic growth) result from managing claims contained in the care of a child from a very challenging experience. Parents perceive as enriching a lapse of time.

The research, which was attended by 50 parents of disabled children, showed some relationships between the factors affecting stress management, characteristics of children with disabilities and parental couple characteristics.

The results show that it is important for understanding of the situation of parents of children with mental disabilities, also to address the positive aspects of their experience, which can be beneficial not only for the parents and their children, but also for the practice of care that families with disabled children are offered. It can also affect the hiring of people with intellectual disabilities in society.
Summary
This contribution is concentrated on detection of factors which influence stress management by parent couple who care of mentally handicapped children. These parents have ambivalent relationship to the birth of a handicapped child. Most of parents consider own handicapped child to one of the most beautiful life experiences but it is connect with one of the biggest life trauma which parents lived through in connection with adverse diagnosis of disablement of their child in the form of mental disability at the same time.

Key words
Mental handicap, family burden, adaptive changes, post-traumatic grow, chronic stress, stress management

Literature:
Kearney, P. M., Griffin, T., 2001, Between joy and sorrow: being a parent of a child with developmental disability. Journal of advanced nursing. č. 7, s. 582-592.
THE LIFESTYLE OF MEMBERS OF CHOSEN MINORITIES IN
THE CZECH REPUBLIC

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Department of Nursing and Midwifery, Faculty of Health and Social Studies, University of South Bohemia in České Budějovice, Czech Republic

Abstract
Intercultural differences, culturally suitable and competent care, multicultural and transcultural nursing, all these are only the examples of terms connected to health care since the second half of the last century. The after war period meant not only political changes but also a very significant migration which has been changing its intensity and motivation factors. The most common incentive for the migrants was a desire for escaping from the war conflict. Today, it is more looking for better life standard, a possibility to get education, better health care or better working conditions. It naturally brings more requirements for communicative skills of health workers who will meet members of various minorities and religious groups more often. It is becoming necessary to know and understand their specifics, cultural background, differences in religion and life style. The final effect of the whole process should be the elimination of potential cultural shock, conflicts based on cultural differences but above all it should be reaching culturally suitable and considerable care. It means that the care is provided according to bio/psycho/social and spiritual needs of each individual and the realisation of this care will be based on scientific bases (Archalousová, Kutnohorská, 2006). Because of the lack of knowledge in this area the grant NS 9606-3 “Providing culturally differentiated nursing care in chosen minorities in the Czech Republic” was realised and it was funded by IGA MZ ČR. The aim of the project was surveying cultural and religious specifics of eight selected minorities, minorities which people working in health care in the Czech Republic could meet most often. Considering interesting findings two religious minorities were chosen for the purpose of this contribution– Buddhists of Diamond Way Karma Kagyu Lineage (thereinafter Buddhists) and Islamists.
Quantitative survey was realised by using a questionnaire which was distributed to individual Buddhism or Islamic confessors. The survey results have shown that members of both minorities follow the healthy life style, which means they eat regularly according to healthy diet rules, they do not smoke, they have regular drinking regime and they follow their spiritual needs.

**Key words:** lifestyle, minorities, Buddhists, Islamists

**Material and methods**

The realisation of a survey project proceeded in four consecutive stages. Analysis of available information about this topic went before survey. On its basis four semistructured interviews were set. The same number of respondents were asked (7 interviewed) from following minorities: Romany (Gypsy), Ukrainian, Mongolian minority, Federation of Jewish communities in CR, Headquarters of Muslim communities, Buddhists of Diamond Way Karma Kagyu Lineage and The Church of Jesus Christ of Latter-day Saints (Mormons). Obtained data became the background for creating anonymous questionnaires in quantitative part of the survey and these questionnaires were distributed with the help of minority representatives from November 2009 to April 2010. There were four parts of the questionnaire aimed on identification data, health attitude, life style and hospitalization. The total number of questions was 140. The data obtained were processed with the SASD programme (Statistic analysis of social data), version 1.4.4. There were 3 258 respondents from minorities selected for the sample, of which 127 were Buddhists of Diamond Way Karma Kagyu Lineage (Buddhists) and 235 Islamic confessors (Islamists).

The sex representation of the selected survey sample was balanced. In both minorities male sex was slightly predominant. Among Islamists it was 50.21% of respondents, 52.76% among Buddhists. The age range of both minorities was very similar. The largest category was with respondents at the age 21 – 40 (see Chart 1). To some extent, the reported employment relates to that fact. Among Buddhists “students” predominated significantly (24.41%), followed by “service and shop workers” (19.69%) and “technicians, health workers and people in education” (16.54%). Representation of “students” was larger among Islamists (26.96%), but also larger number of “unemployed” occurred in this group (12.61%).

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**Chart 1 Age range of respondents**

<table>
<thead>
<tr>
<th>Age range</th>
<th>Buddhists (N = 127)</th>
<th>Islamists (N = 234)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years old</td>
<td>10.24%</td>
<td>20.51%</td>
</tr>
<tr>
<td>21 – 30 years old</td>
<td>49.6%</td>
<td>38.03%</td>
</tr>
<tr>
<td>31 – 40 years old</td>
<td>36.22%</td>
<td>23.50%</td>
</tr>
<tr>
<td>41 – 50 years old</td>
<td>3.15%</td>
<td>10.68%</td>
</tr>
<tr>
<td>51 – 60 years old</td>
<td>0.79%</td>
<td>3.42%</td>
</tr>
<tr>
<td>61 – 70 years old</td>
<td>0.00%</td>
<td>2.56%</td>
</tr>
<tr>
<td>Older than 70</td>
<td>0.00%</td>
<td>1.28%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

Significant agreement was recorded in the item focused on the length of stay in the Czech Republic. Islamists (N = 174) reported this country as a place where they were born in 59.20%. For Buddhists (N = 126) reported that even 96.03% of respondents. An interesting finding was the level of participation in health insurance (see Chart 2). Nearly 100.00% of respondents from both minorities stated some type of insurance, which means they participate. A very positive finding was that more than three-quarters of respondents have at least a "public health insurance."

**Chart 2 Health insurance participation**

<table>
<thead>
<tr>
<th>Type of Health insurance</th>
<th>Buddhists (N = 123)</th>
<th>Islamists (N = 216)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public health insurance</td>
<td>98.37%</td>
<td>80.09%</td>
</tr>
<tr>
<td>Public health insurance plus commercial insurance</td>
<td>1.63%</td>
<td>14.35%</td>
</tr>
<tr>
<td>Commercial health insurance -complex care</td>
<td>0.00%</td>
<td>4.63%</td>
</tr>
<tr>
<td>Commercial health insurance-emergency care</td>
<td>0.00%</td>
<td>0.46%</td>
</tr>
<tr>
<td>No health insurance</td>
<td>0.00%</td>
<td>0.46%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>
Characteristics of these groups in terms of religion is undoubtedly strongly influenced by cultural and spiritual backgrounds. This corresponds with the results. It can be concluded as follows. None of the Islamists respondents (N = 231) chose another religion than Islam. Among the Buddhists similar results were (N = 127) achieved, only one respondent stated not to believe in any church.

**Results**

The tested area of minorities’ lifestyle contained a total of 38 entries mapping the sleeping habits, the way of spending leisure time, type of job performed, physical and mental state, nutritional habits and spiritual needs. Cultural differences were already apparent in the analysis of the way of spending free time (see Graph 1), where series of activities were offered from which respondents could select one or more. For this reason, relative values are shown in the graphical representation.

**Graph 1 Leisure time**

![Leisure time Graph](image)

**Legend:** 1 – with family; 2 – sport; 3 – at home in front of TV, PC; 4 – at home reading a book; 5 – with friends; 6 – music, dancing; 7 – gardening; 8 – DIY; 9 – other.

The absolute majority (63.78%) of Buddhists spends leisure time with friends. To a greater extent, they also reported sport (38.58%) and the possibility of other (37.01%). Only 14.96% mentioned spending free time with their family. Completely opposite results in order of
chosen activities were reached with the Islamists. Spending their leisure time with families dominated (89.27%). Spending time with friends followed by with a great loss (17.60%). Answers to the question "How many hours a day do you spend with your family?“ are closely related to these data. An established range of options: "less than 1 hour" - "1-2 hours" - "3-4 hours" - "5-6 hours" - "more than 6 hours". Buddhists (N = 126) reported range of less than 1 hour (47.62%) and 1-2 hours (35.71%) the most commonly. But Islamists (N = 219) spend much more time with the family according to the results in the previous statement. Therefore, in an absolute majority they reported more than 6 hours (53.19%). With the significant loss they chose the option 3-4 hours (21.70%). Smoking, drinking coffee and alcohol are inherently parts of lifestyle. Some of these habits are largely influenced by the professed religion. Based on the data we can confirm, in accordance with expectations, the minimal occurrence of smoking, drinking coffee and alcohol among Islamists (N = 235). Consistent items were reported only in very small numbers - smoking (5.96%), drinking coffee (23.40%), rarely drinking alcohol (0.85%). Similarly, it was with the Buddhists (N = 127), where smoking was confirmed only by 7.87% of the respondents. In the case of drinking coffee and alcohol the occurrence of positive answers was not that low comparing to the previous religious group. Drinking coffee was reported by more than half of Buddhists (56.69%), alcohol drinking occurred in 35.43%. It also corresponds with the question about liquids preference. The respondents were given a range of drinks, from which they could choose one or more, according to their preferences (see Chart 2). Therefore, the graphical representation showed relative values.
It is obvious that the Islamists in the vast majority prefer common drinking water (78.35%), mineral water (16.02%) and with a higher loss in the number of answers also tea (12.55%). It is interesting they do not mention the sweet non-alcoholic sparkling or non-carbonated drinks, vegetable juice and even alcohol. In contrast, only 51.59% Buddhists prefer tea, 50.79% of them ordinary drinking water. The preference for mineral water is more common (23.02%) among them, as well as choosing soft sweet sparkling and non-sparkling drinks, vegetable juices, coffee and alcohol.

Another area of research focused on dietary habits of minorities. Both Muslims and Buddhists eat mostly in accordance with the principles of healthy diet. More than a half ensures the regularity of meals. Neither elected minority considerably prefers the cold meals, eating in restaurants or at fast-food bars. But the influence of cultural background and confessed religion was recorded as regards food preferences, analogous to leisure time. This was the most reflected in statements related to meat consumption. Meat is preferred only by 24.14% of Islamists (N = 235), they prefer chicken, beef and fish. In contrast, Buddhists (N = 127) expressed their preference for meat 67.72%, and they consume mostly chicken, pork, fish and
beef (see Graph 3). Due to the choice of several types of meat being preferred the relative values are shown.

Graph 3 Meat preference

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>37.78%</td>
<td>27.56%</td>
<td>0.00%</td>
<td>0.89%</td>
<td>0.44%</td>
<td>36.00%</td>
<td>0.00%</td>
<td>0.44%</td>
<td>8.00%</td>
</tr>
<tr>
<td>Islamists</td>
<td>52.78%</td>
<td>16.54%</td>
<td>34.86%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>27.56%</td>
<td>0.79%</td>
<td>1.57%</td>
<td>1.57%</td>
</tr>
</tbody>
</table>

Legend: 1 – chicken; 2 – beef; 3 – pork; 4 – mutton; 5 – rabbit; 6 – fish; 7 – game; 8 – other; 9 – no meat consumption.

With meat consumption the most common way of cooking was also found out. In accordance with the specifics of Buddhists (N = 127) as the most common method occurred roasting (58.27%), grilling (30.71%), boiling (15.75%) and frying (13.39%). These methods of preparing meat in varying proportions occurred also among Islamists (N = 220). Boiling was mentioned in 48.64%, 36.82% for roasting and frying only in 15.91%. Olive oil prevailed as fat for preparing meals in both groups.

Preference for vegetables in the diet was expressed in the absolute majority of respondents in both religious groups. Significantly different results occurred when the question focused on fruit preference. Statistically significant agreement in 92.68% Muslims expressed (N = 232), Buddhists (N = 127) 33.85% chose the negative items, e.g. rather or totally disagree. A very similar situation was found in preference to dairy products. They were refused by Buddhists (N = 126) in the higher rate (45.24%) while the Islamists (N = 233) expressed 89.27% agreement with their consumption. Specific types of the most commonly consumed dairy
products are listed below (see Graph 4). Again, respondents could choose from more proposed dairy products, that is why relative values are shown.

**Graf 4 Most frequent dairy products**

![Graph 4 Most frequent dairy products]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Islamists</strong></td>
<td>8.81%</td>
<td>5.29%</td>
<td>71.37%</td>
<td>11.45%</td>
<td>14.54%</td>
<td>0.44%</td>
<td>5.73%</td>
</tr>
<tr>
<td><strong>Buddhists</strong></td>
<td>39.37%</td>
<td>12.60%</td>
<td>17.32%</td>
<td>3.94%</td>
<td>55.12%</td>
<td>1.57%</td>
<td>3.15%</td>
</tr>
</tbody>
</table>

**Legend:** 1 – yoghurts; 2 – acidified milk products; 3 – milk; 4 – cream; 5 – cheese; 6 – other; 7 – no dairy products consumption.

For comprehensive information about the lifestyle of selected religious groups it is necessary to complete the findings of the last statement group focused on this area, from religious habits and spiritual needs. The first question in this area was focused on the frequency of visiting the places of worship (see Chart 3). The vast majority of Buddhists visits it several times a week (42.62%), or at least once a week (36.07%). On the contrary, Islamists visit these places in the highest percentage per day (42.79%), or at least once a week (27.95%). None of the representatives of this religious group stated the absence of visiting the house of worship.

**Chart 3 Frequency of visiting place of worship**

<table>
<thead>
<tr>
<th>Frequency of visiting place of worship</th>
<th>Buddhists (N = 122)</th>
<th>Islamists (N = 229)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td>5.74 %</td>
<td>42.79 %</td>
</tr>
<tr>
<td>Several times a week</td>
<td>42.62 %</td>
<td>25.33 %</td>
</tr>
<tr>
<td>Once a week</td>
<td>36.07 %</td>
<td>27.95 %</td>
</tr>
</tbody>
</table>
Other questions were focused on meditation and praying, almost all Buddhists (91.13%) need to perform meditation daily and 98.68% Islamists daily need the time for prayer.

**Discussion**

Lifestyle is one of the most important factors in term of health effects. The effect of lifestyle is applied across the whole spectrum of life, for example diet, physical activity, family, employment, leisure activities, etc.

**Meals**

It is known that in the Islamic religion there is a series of commands and prohibitions how to prepare and consume food. The Qur'an prohibits the consumption of pork meat and all products of it, including fat. Also dishes prepared using lard are prohibited. (Nurse, 2009). This fact is confirmed by research. No respondent consumes pork. Most consume chicken meat (37.78%), then fish (36.00%) and beef (27.56%). Preparing food they prefer boiling (48.64%) or roasting (36.82%). The most used fat is olive oil (55.84%) and as a side dish they prefer rice (45.91%). Islam pays great attention to nutrition, to keep clean heart and a healthy mind, to strengthen the soul and to have clean and healthy body (Sardar, 2010). This is also reflected in the answers of our respondents, 69.73% of them follow the principles of healthy diet. 68.70% of respondents do not prefer cold food and 62.17% do not prefer sweet meals. Islam points to the fact that food and drink have a direct impact on the overall condition of a person receiving food regularly. It has been also shown in the results of our research. The vast majority of respondents prefer vegetables (90.52%) and fruit (92.68%). 89.27% of respondents prefer milk products in their diet, especially drinking milk (71.37%). Following a healthy diet is also reflected in the results, 89.91% of the respondents do not eat food in snack bars and fast foods and 89.13% do not eat in any kind of restaurants.

Food takes in Buddhism, like in Islam, an important place. Of course, there is the difference between the daily meals of monks and daily food for lay members of Buddhist community (Jordán, 2005). Buddhism does not instruct to eat in a healthy way. On the other hand, it takes

<table>
<thead>
<tr>
<th></th>
<th>11.48 %</th>
<th>3.93 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>During important events</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No visits</td>
<td>4.10 %</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Total</td>
<td>100.00 %</td>
<td>100.00 %</td>
</tr>
</tbody>
</table>
the human body as an instrument for doing good, and to be able to do it for others, human
must be healthy. This was confirmed in our research investigation. 65.87% of respondents eat
regularly. 50.00% of respondents stated they ate according to the principles of healthy diet.
The vast majority of respondents (75.59%) does not favour sweet dishes in their diet; even
(86.62%) do not eat in fast food restaurants. There is a stereotype myth about Buddhist
vegetarianism concerning food and nutritional habits. We can find a statement that, according
to Buddha’s instructions, Buddhists are vegetarians. Not so. It is true that indispensable part of
the Buddhists, really are vegetarians (especially monks in monasteries), but this is not a
universal phenomenon and undoubtedly, this vegetarianisms is not closely based on the
teachings of Buddha. The justification of this dietary regime is often based on the realization
of the principle of ahinsá, non-violence that prohibits taking life of others, prohibits murder
and killing of sentient beings. In Tibet the only neutral way of eating meat is consumption of
animals that have died "naturally" without human intervention (Jordán, 2005).
Respondents prefer meat in their diet, namely 67.72%. But it is necessary to know that the
animal really did not die directly because of them. Most consume chicken (52.76%), pork
meat (34.65%) and fish (27.56%). Interestingly, no respondent mentioned rabbit meat. The
reason may be that the rabbit is often being killed just for you. 26.77% of respondents do not
favour meat in their diet. The most common type of cooking method is roasting (58.27%
respondents). 64.00% of respondents prefer olive oil for cooking. A healthy diet should also
include plenty of fruits and vegetables. 69.05% of respondents preferred vegetables in their
diet and 56.70% of them fruits. The most popular dairy products are cheese for (41.42%)
respondents and yoghurt (29.59%).

Drinking regime
An essential component of a healthy lifestyle is undoubtedly also maintaining a drinking
regime. Drinking regime should be based on low energy drinks. The best source of liquids for
healthy drinking are: the baby drinking water, spring or purified bottled water or slightly
mineralized water with a balanced mineral content. It is also important to keep the determined
quantities of liquid, which is two to three litres of liquid per day (Grofová, 2007). The correct
amount of liquid per day is followed by the 46.50% Buddhists. Among the most popular
liquid is then tea (51.59%), ordinary drinking water (50.79%) and mineral water (23.02%).
93.10% of Muslims daily drink 1-2 litres of liquids. Ordinary drinking water is one of the
most popular (78.35%). Alcohol is not banned by Buddhism. Only it is not recommended to
consume alcohol before meditation. 35.43% of surveyed persons drink alcohol regularly, and 60.63% of respondents only rarely. In Islam, alcohol and all the toxic substances are prohibited, as it is evident also in our research.

Spiritual needs
Meditation is a typical feature for Diamond Way Buddhism. The advantage of meditation is that it does not need a special position. It can be done sitting, walking, lying down in bed in case of illness. You can also meditate in front of Buddha statue or facing the picture of Exalted (Nydhal, 2007). A total of 91.13% respondents daily need time for regular meditation. Prayer is one of the pillars for Islam and it is considered to be its base. That fact is also proved by our research, 98.68% Islamists need time for praying daily and 42.79% respondents visit house of worship every day.

Conclusions (Conclusions)
Meeting foreign cultures, religious groups and different subcultures is a phenomenon that has been evident in our society for many years. Like our ancestors, we are trying to get enough information about our environment. The main significance of this knowledge in the case of nursing is providing good and culturally competent care, which includes the latest knowledge, but not only in medicine and nursing itself. Today, thanks to an expanded network of information resources, we can get information from printed publications, electronic pages and sound recordings. The research projects allow us to identify important knowledge that is known to many but in our conditions, yet not exactly defined. They play an important role in our understanding. In this way also the specifics of individual religious groups and minorities which we can find in the Czech Republic can be characterized. This paper has focused on two religious groups, Buddhists and Islamists. Both groups, though diverse religion have much in common, such as needs for praying, meditation, family, etc. In many ways they also differ, for example eating certain food, milk, meat, etc. It is important to realize that whether one professes any religion, faith or is a minority member, he or she regardless of “difference” has rights for adequate, quality and diligent nursing care.

References

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Abstrakt

Úvod: Problematika kvality života v kontexte rodín poskytujúcich paliatívnu starostlivosť je v našom prostredí aktuálnou témou. Zakomponovaná je aj v koncepcii paliatívnej starostlivosti, no zvyčajne stojí na okraji záujmu poskytovateľov zdravotníckej starostlivosti.

Cieľ: Cieľom našej štúdie bolo poukázať ako služby paliatívnej starostlivosti v našich podmienkach ovplyvňujú kvalitu života opatrovateľov.

Vzorka a metódy: Do výskumu bolo zapojených 263 opatrovateľov, ktorí poskytujú starostlivosť v domácom prostredí, ktorých pribuznému je poskytovaná kombinovaná starostlivosť a paliatívna/hospicová starostlivosť. Pre zber empirických údajov boli použité tri dotazníky: Caregiver Strain Index na posúdenie záťaže opatrovateľov, Caregiver Quality of Life Index – Cancer na hodnotenie jednotlivých aspektov kvality života opatrovateľov a škála FAMCARE na posúdenie spokojnosti opatrovateľov s poskytovanou starostlivosťou.

Výsledky: Naše výsledky potvrdzujú vplyv paliatívnej starostlivosti na minimalizáciu záťaže, vyššiu spokojnosť opatrovateľov s poskytovanou starostlivosťou, lepšiu kvalitu života v oblasti fyzické zdravie a minimalizáciu úzkosti, strachu, sociálnej izolácie opatrovateľa a obáv z budúcnosti (p< 0,0005).

Záver: Výsledky výskumu potvrdzujú, že aj opatrovatelia, v starostlivosti o zomierajúcich, si vyžadujú zo strany sestier starostlivosť a podporu kvality ich života. Jedným zo spôsobov minimalizovania preťaženia opatrovateľov a negatívneho hodnotenia kvality života je aj využívanie služieb paliatívnej a hospicovej starostlivosti, čo potvrdzujú výsledky nášho výskumu aj viacerých štúdií.

Kľúčové slová: palliative care, quality of life, caregiver
Vzorka a metódy:
Do výskumu bolo zapojených 263 opatrovateľov, ktorí poskytujú starostlivosť v domácom prostredí, ktorých príbuznému je poskytovaná kombinovaná starostlivosť a paliatívna/hospicová starostlivosť. Vzorku respondentov sme popísovali z aspektu demografických údajov, medzi ktoré patrili: pohlavie, vek, forma a dĺžka poskytovanej starostlivosti a rodinná príslušnosť príbuzného k zomierajúcemu. Vzorku výskumu tvorilo 142 žien a 121 mužov. Priemerný vek respondentov bol 49 rokov, v rozpätí od 19 do 77 rokov. Priemerná dĺžka poskytovanej starostlivosti pri poskytovaní domácej a kombinovanej starostlivosti bola 3 roky, pri poskytovaní paliatívnej starostlivosti 2,25 mesiaca. Z hľadiska rodinnej príslušnosti opatrovateľa k zomierajúcemu poskytovalo starostlivosť 86 životných partnerov, 103 detí a 74 ostatných príbuzných (vnúčatá a súrodenci zomierajúceho).

Pre zber empirických údajov boli použité tri dotazníky:


2. Caregiver Quality of Life Index – Cancer na hodnotenie jednotlivých aspektov kvality života opatrovateľov (Weitzner & McMillan 1999), ktorý pozostáva z 35 položiek, hodnotených na 5 bodovej Likertovej škále, od 0 (nie všetko) do 4 (veľmi veľa). Tento nástroj posudzuje kvalitu života v štyroch oblastiach: 1. fyzické zdravie vrátane únavy, 2. psychologickú, spirituálnu, emocionálnu a existenciálnu oblasť, 3. socio-ekonomický stav, 4. sociálnu oblast', vrátane rodinných vzťahov poskytovateľa a príjemcu starostlivosti.

3. FAMCARE na posúdenie spokojnosti opatrovateľov s poskytovanou starostlivosťou, ktorý obsahuje 20 položiek s možnoťou odpovedi na Likertovej škále od 0 (veľmi nespokojný) do 4 (veľmi spokojný so starostlivosťou). Táto škála posudzuje spokojnosť opatrovateľa s poskytovanou starostlivosťou v doménach: podanie informácií, vrátane komunikácie, profesionálne služby starostlivosti vrátane dostupnosti hospicovej starostlivosti a výsledky poskytovanej starostlivosti, vrátane manažmentu bolestí a iných obťažujúcich symptómov. (Kristjanson, et al, 1993)
Výsledky:
Cieľom našej štúdie bolo poukázať ako služby paliatívnej starostlivosti v našich podmienkach ovplyvňujú kvalitu života opatrovateľov. Z výsledkov našej štúdie vyplývajú štatisticky významné rozdiely v miere záťaže, v celkovej kvalite života a v miere spokojnosti opatrovateľov s poskytovanou starostlivost'ou (tab.1). Respondenti, ktorí poskytujú 24 hodinovú starostlivosť zomierajúcemu v domácom prostredí hodnotili fyzickú a psychickú záťaž pri poskytovaní starostlivosti ako vysokú (x-8,32), rovnako ako opatrovatelia, ktorých príbuznému je poskytovaná kombinovaná starostlivosť - inštitucionalizovaná starostlivosť v kombinácií s domácou starostlivosťou (x-9,78). Najnižšiu mieru záťaže uvádzali respondenti, ktorých príbuznému je poskytovaná hospicová a paliatívna starostlivosť (x-4,094). Zároveň môžeme konštatovať, že okrem najnižšej záťaže dosahovali respondenti, ktorých príbuznému je poskytovaná hospicová a paliatívna starostlivosť najvyššiu kvalitu života (x-25,6) a najvyššiu mieru spokojnosti s poskytovanou starostlivosť'ou (x-83,54).

Tab.1 Hodnotenie záťaže, celkovej kvality života a spokojnosti

<table>
<thead>
<tr>
<th>Forma starostlivosti</th>
<th>Záťaž</th>
<th>Kvalita života</th>
<th>Spokojnosť</th>
</tr>
</thead>
<tbody>
<tr>
<td>P(K-W)</td>
<td>&lt; 0,0005</td>
<td>&lt; 0,0005</td>
<td>&lt; 0,0005</td>
</tr>
<tr>
<td>H</td>
<td>130,884</td>
<td>183,641</td>
<td>100,220</td>
</tr>
</tbody>
</table>

Signifikantné rozdiely sa potvrdili aj v jednotlivých doménach kvality života opatrovateľov (p<0,0005) (tab.2). Opatrovatelia, ktorých príbuznému je poskytovaná hospicová a paliatívna starostlivosť uvádzali vyššiu kvalitu života v oblasti „fyzické zdravie“ (x-6,54), v porovnaní s opatrovateľmi, ktorých príbuznému je poskytovaná domáca (x-25,67) a kombinovaná starostlivosť (32,44), minimalizáciu strachu, úzkostí a obáv z budúcnosti (x-6,28), menšiu finančnú záťaž (x-4,08) ako aj zlepšenie rodinných vzťahov a spoločenských roli (x-8,72).

Tab.2 Signifikantné rozdiely v jednotlivých doménach QoL

<table>
<thead>
<tr>
<th>Forma starostlivosti</th>
<th>Ekonomická doména</th>
<th>Emocionálna doména</th>
<th>Fyzické zdravie</th>
<th>Sociálna doména</th>
</tr>
</thead>
<tbody>
<tr>
<td>P(K-W)</td>
<td>&lt; 0,0005</td>
<td>&lt; 0,0005</td>
<td>&lt; 0,0005</td>
<td>&lt; 0,0005</td>
</tr>
<tr>
<td>H</td>
<td>126,761</td>
<td>173,590</td>
<td>190,323</td>
<td>20,014</td>
</tr>
</tbody>
</table>

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**Diskusia:**

Problematika vplyvu nevyliečiteľného ochorenia na jednotlivé oblasti kvality života pacienta ako aj jeho rodinných príslušníkov sa v dôsledku ich meniacich sa potrieb stáva aktuálnou, čo dokazujú vo svojich štúdiách aj domáci a zahraniční autorí (Farský, 2007; Tamayo et al., 2010; Chrastina et al., 2011, Schwetzová et al. 2011). Z výsledkov nášho výskumu ako aj z viacerých štúdií (Weitzner, Moody, McMillan, 1997; Meyers et al., 2001; Toth, 2005; Peters, 2006) vyplývajú signifikantné rozdiely v miere záťaže, v kvalite života opatrovateľov a v ich spokojnosti s poskytovanou starostlivosťou z hľadiska formy poskytovanej starostlivosti. Pri poskytovaní domácej starostlivosti sa stretávame s výskytom viacerých problémov, ktoré ovplyvňujú hodnotenie kvality života opatrovateľov: fyzické problémy vyplývajúce z poskytovania 24 hodinovej starostlivosti, únava, vyčerpanosť, neprijatie role opatrovateľa, zmeny v prerozdelení úloh medzi jednotlivými členmi rodiny, zmeny v zahnutom spôsobe života, nedostatok rodinnej podpory, strata zamestnania až výskyt depresie a iných psychických problémov opatrovateľa.

Tamayo et al. (2010, s. 55) uvádzajú, že adaptácia na zmenenú životnú situáciu a opora zo strany zdravotníckych pracovníkov a ostatných členov rodiny sú faktory pozitívne ovplyvňujúce kvalitu života opatrovateľov v starostlivosti o zomierajúcich. Lepšie hodnotenie jednotlivých oblasti kvality života u opatrovateľov, ktorých príbuznému je poskytovaná hospicová a paliatívna starostlivosť, si vysvetľujeme vyššou úrovňou ich vedomostí, čo pozitívne korelovalo so spokojnosťou opatrovateľov s poskytovanou starostlivosťou a lepším manažmentom obťažujúcich symptámov zomierajúceho. Ako výhodu poskytovania služieb paliatívnej a hospicovej starostlivosti vidíme aj v zapojení dobrovoľníkov a iných členov multidisciplinárneho tímu do procesu starostlivosti, čím sa minimalizuje strach a obavy opatrovateľov o príbuzného ako aj fyzické problémy z dôsledku neposkytovania 24 hodinovej starostlivosti v domácom prostredí.

**Závery:**

Absencia systematického prístupu k posúdeniu kvality života opatrovateľa ako aj absencia realizácie intervenčných štúdií vo vzťahu k nemu úzko súvisí s nedostatočným vzdelávaním sestier v paliatívnej starostlivosti ako aj zniženou dostupnosťou k službám paliatívnej a hospicovej starostlivosti v podmienkach Slovenskej republiky. Z uvedených dôvodov poukazujeme na potrebu aplikovať výsledky nášho výskumu na úroveň profesionálnej prípravy sestier a na možnosti využívania služieb paliatívnej a hospicovej starostlivosti ako jednej z forem minimalizovania záťaže a negatívneho hodnotenia kvality života opatrovateľa.
Zoznam bibliografických odkazov:


QUESTIONS OF THE MIGRATION

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Abstract

Introduction: The topics of the essay are the choice of the career, the intention to stay in a career or to abandon a career, and the issues in connection with the migration which endangers the public health care. Aim of the study: To estimate the proportion of nursing students in Hungary who intend to graduate from a nursing program and intend to work as a nurse after graduation. Material and methods: A cross-sectional, mail survey was implemented. A total of 381, purposively selected, final year students returned the survey instrument developed by the researchers. The survey was conducted in 3 of the total 7 nationwide nursing schools. Results: The rate of estimated student attrition ranged between 7 and 20%. Students were most satisfied with the mentoring and support received from faculty, and were least satisfied with their future career as a nurse. The most important factors that predicted intent to graduate and work after graduation were satisfaction with faculty support and clinical experiences, influence from family/peers to leave nursing, and intent to work abroad. Conclusions: Self-reported student attrition was prevalent in the sample studied. Students ranked faculty support as the top influence to graduate and work as a nurse after graduation. The finding that family/peers had negative influence on students' intent to graduate requires further exploration. Provision of strong, continuous support to faculty members by the school administration seems the best, but not the only counter attack against student attrition.

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Key words: nurse migration, career, education, working conditions

Material and methods

The topics of the essay are the choice of the career, the intention to stay in a career or to abandon a career, and the issues in connection with the migration which endangers the public health care.

In the preamble the above-mentioned topics will be presented based on international and domestic data. The scientific preamble summarizes the international issues of nursing, the problems of nurse training, the issues of attrition, the situation of the actively working nurses, the intention to work abroad, the migration trends and projects. The major issues affecting the Hungarian students / nurses (the low attraction of health jobs for the youth, lack of human resources in nursing jobs, its effects on the health care, the demography and how to maintain a
sustainable health labour force, the migration of health workers). The first chapter reviews the
topic and presents the direction of the research.

During our research we have set the objective to examine the intent of the Hungarian
nurses and nurse students and of the Czech nurse students to abandon their career and the
intent to migrate, their socio-demographical background, opinion about the education, and the
reason why the nurse students have chosen this vocation. A comparing, context revealing and
cross-section study has been carried out. The objective is to raise the attention of the health
leadership to the staff shortages of nurses, its reasons and to help them take the steps
necessary for a better provision of nurses, and for a better human resources management and
labour force stability. The validity of eight hypotheses has been examined for this study.
Hypotheses have been set about the standard of the training and practice, the satisfaction
about the career, the reasons of the intent to keep this career, and the factors influencing the
abandoning of this career and the employment abroad; the final the hypothesis dealt with the
comparison of the opinions of the Czech and the Hungarian nurse students.

As a method an own questionnaire has been elaborated that has been evaluated by six
experts before use. The examinations had been conducted in two phases; the first phase
consisted of three steps. In the step one 522 persons (miscellaneously nurse students and
nurses) have been chosen, in step two the first sample has been extended to 828 persons
(miscellaneously nurse students and active nurses). In step three the conditions of the nurse
training have been analysed based on a sample of 381 students (Hungarian nurse students). In
step one of phase two the Czech samples have been compared with the Hungarian samples
while 431 persons were involved (Hungarian and Czech nurse students). The first part of the
questionnaire dealt with the qualification, the profession, the health status and the financial
standing of the students and the nurses. The next questions focussed on the opinion of the
students, participating in this special training, about the training and its continuation. In the
next question the active nurses were asked about their job, their commitment to the career and
their future work plans. Finally, we were inquiring about the foreign employment habits of
students and active nurses. For the evaluation of the “satisfaction and likelihood” answers and
the answers related to the exit from nursing and the migration we have used the Likert-scale.
During our study we have applied conceptual and measuring approach, similarly to the
European NEXT-study (NEXT, 2005). The study is a cross-section type study; it was not
followed by another study. The anonymity of the respondents has been guaranteed; their
private rights have not been violated. When the data were processed we have performed the analysis with the SPSS Windows version 15.0. In the first step the methods of the descriptive statistics (frequency, distribution of the relative frequency, histogram, mean value indices: median, modus and dispersion indices [range, distribution, variance]) have been used. Certain distributions have been presented as histograms, as well, because the population has given two different answers to the given questions. We have elaborated linear and logistic models for the analysing part. In some cases the independence has been examined ($\chi^2$ test), and the Mann-Whitney test and the double-sample test have also been used.

The normality has been examined with the Kolmogorov-Smirnov and Shapiro-Wilk test.

Témou eseje je voľba povolania, v úmysle zostať v kariére, alebo opustiť kariéru, a problémy v súvislosti s migráciou, ktorá ohrozujú verejné zdravotnej starostlivosti. V preambule sa vyššie uvedené těmy budú prezentované na medzinárodnej a vnútroštátnej dáta. Vedecká preambule zhŕňa medzinárodných otázok, problémov zdravotných esterów, otázky oslavovanie, situáciu aktívne pracujúci estery, zámer pracovať v zahraničí, migračné trendy a projekty. Hlavné otázky týkajúce sa maďarskej študentov / estrey (nízka prítiažlivosť pracovných miest pre zdravie mládeže, nedostatok ľudských zdrojov v ošetrovateľskej práci, jeho účinky na zdravotnú starostlivosť, demografia a ako sa zachovať udržateľný zdraví pracovných síl, migrácia zdravotníckych pracovníkov). Prvá kapitola zhŕňuje tému a predstavuje smer výskumu.


Results

The chapter “Results” contains the summary of the researches conducted by ourselves and reported in the publications. Our results can be divided into two phases and into further steps. Firstly, the data of step one of phase one – 522 persons – have been analysed. The dependent variable was the probability whether the person will work as a nurse in the next one year, the independent variable was the age, the health status, the time spent in the health care, the marital status, whether there is any health worker in the family, the intent to learn, the knowledge of any foreign language, and the satisfaction with the workplace / education. The number of the students’ cases was too low to set up an effective model in their circle. The variables used for the active nurses gave unsatisfactory explanation why the respondent will keep working in this job next year. The shift schedule and the knowledge of foreign languages were negative factors; the older age, the satisfaction with the shift schedule, and the opportunities for further development made the nurses stay. The relationship also makes them stay. The nurses with academic degree who speak a foreign language chose employment abroad in higher proportion than the ones without foreign language skills.

V kapitole “Výsledky” obsahuje prehľad výskumov vykonávaných sami a je zaznamenané v publikáciách. Naše výsledky možno rozdeliť do dvoch etáp a na ďalšie kroky. Po prvé, dáta z kroku jedna z prvej fázy - 522 osôb - boli analyzované. Závislá premenná je pravdepodobnosť, či človek bude pracovať ako zdravotná sestra v budúcom roku, nezávisle premennú bol vek, zdravotný stav, čas strávený v zdravotníctve, rodinný stav, či existuje nejaký zdravotníckych pracovníkov v rodinu, so zámerom učiť sa, znalosť cudzieho jazyka a spokojnosť s pracoviskom / education. Počet prípadov študentov bola príliš nízka pre nastavenie efektívneho modelu vo svojom kruhu. Premenné použité pre aktívne sestry dali nevyhovujúce
In step two of phase one the data of 828 persons have been analysed. They considered the standard of the education averagely good. They had a similar opinion about the time of the practice, how the practices are organized and about their standard. They were more satisfied with the trainers’ know-how. Almost one-third of them were dissatisfied with the expectable financial and moral appreciation of the nurse profession. The majority has not thought to discontinue their studies, similarly, the majority does not want to continue their studies in other fields but one fourth of them would choose the higher nurse education (college, university studies) with a high probability. Only one fifth of them would recommend others to participate in the nurse training. Half of them were not encouraged to leave the nurse training in the past months. Half of the respondents will complete their studies for sure. The majority of the active nurses is dissatisfied with their salaries; they were satisfied / dissatisfied with the conduct of the colleagues in about 50-50 percent; the majority was not satisfied with their working conditions and their equipment etc. Almost the majority of the sample was dissatisfied with the flexibility of the working hours, with the schedule and the number of overtime. One-fourth of them are dissatisfied with the opportunities for further development, higher training and career advancement.
správaním kolegov v cca 50-50 percent, väčšina nebol spokojný s pracovnými podmienkami a ich vybavenie atď. Takmer väčšina vzorky bol nespokojný s flexibilitou pracovnej doby, s harmonogramom a počet nadčasov. Jedna štvrtina z nich sú nespokojní s možnosťami ďalšieho rozvoja, vyššieho vzdelávania a kariéry... 

To the question whether they have thought to give up the career as a nurse in the past 6 months and find a job in another field of the health care: forty-one percent have not thought of it at all, the others rarely, or occasionally, frequently or constantly have thought of it. To the question whether they would start a career beyond the health care one-third of the respondents said that they have thought of it occasionally, and one-fifth of them frequently or constantly. Almost half of the sample wants to continue working as a nurse in the next one year for sure. The same rate of the respondents would or would not choose the career as a nurse, but less would recommend this career to others for sure than the number of persons who would not recommend it at all. The majority was not encouraged to give up their career. Two third of the sample had no colleague who was not a citizen of Hungary; the rest of them had one to six colleagues without Hungarian citizenship. From among the questions referring to the intent of the nurses and nurse students to work abroad the first question inquired about the knowledge of European foreign languages and the answers given to these questions showed that sixty-three percent speak no foreign languages at all, one-third of them speak a foreign language at elementary level, and only a minimum proportion speaks a foreign language at intermediate or advanced levels. More than one-fourth of them have already thought to work abroad. Thirteen percent has already contacted a job agency offering jobs abroad. The basis of the motivation to work abroad is the location, but other important reasons are the better work conditions, and the better developmental (career) opportunities. Eighty percent of the respondents think that an employment abroad would be the chance to emerge from the present bad situation which shows that they find no positive future prospects in this profession in Hungary. The majority would prefer working in Germany/Austria or in Great Britain. Within the linear regression model the foreign language skills and the number of shifts influence the commitment to the career negatively, while the flexible working hour management, the help of the colleagues, the opportunities for higher training and the age influence the commitment to the career slightly positively.
The loglinear analysis has shown that sixty six percent of the nurses with elementary foreign language skills would work abroad. More than half of the nurses in colleague education, and half of the persons in basic education, sixty two percent of the respondents living in a relationship, and only one-third of the singles would work abroad.

In step three of phase one we have narrowed the results of the first two steps down to the students, moreover, we made people complete new questionnaires at the places of the previous studies. Our objective was to examine the conditions/circumstances of the education in details. We have analysed 381 completed questionnaires. As for the indices of satisfaction the students were clearly not satisfied with their career opportunities. The satisfaction with the education and the support received from the schools were high on the list.

Discussion

In phase two the data of 128 Czech nurses were compared to the data of 303 Hungarian nurses. The standard of education is much higher in the academic institutions (colleges, universities) in the Czech sample than in the Hungarian one. The foreign language skills are higher in the Czech sample at every level than in the Hungarian one. In the Czech sample more students are satisfied with the education than in the Hungarian sample. The Hungarian students contemplate in higher proportion to discontinue their studies than their Czech contemporaries. For the Czech students the orientation to the doctor’s profession has a greater attraction; the Hungarians have stronger intent to abandon their careers. The intent to work abroad is the same in both samples, but the reasons of the decisions are different. Our aim was to extend the results of our researches. The main advantage of the model formed from the comparison is that the future Hungarian conditions can be forecast.


In conclusion we can state the following things: In step one of phase one the want of abandoning the career and migrating was clearly present in both samples but differently.
Typical was the want of switching to another health profession or to another profession. In the case of the students we have predicted that the certain attrition rate will be ten percent. The arguments in favour of the employment abroad are the foreign language skills and the academic qualification. The best motivating factors of continuing the career were the flexible working hours and the developmental and career opportunities. In this sample the want of abandoning the career and migrating abroad were demonstrably present. In order to avoid that a higher percentage abandons this career and migrates it seems important to reorganize the work schedule and to create a career structure.

In step two of phase one our objective was to assess the nurses’ intent to abandon their career and/or to work abroad, moreover, to estimate the number of the nurse students who want to work after finishing the school and the likelihood that the active nurses will work as nurses in the next year. Most often we have examined the “input” (training) side of the nursing. Two-third of the students feel motivation to complete their studies and to stay in the nurse training. Less than one percent feel that they have made a wrong decision when they have chosen the nurse training. This picture has changed when we have asked the students about the graduation. The total percentage of the students who were unsure about the completion of their studies and of the ones who definitely did not want to complete their studies was around sixteen percent.

To support the assumption we have chosen the correspondence course students who are absolutely sure that they will not work as a nurse after graduation/finishing the school and we have examined their answers given in the topics “working beyond health care”. We were not surprised to find cross-sectional accordance. Therefore, based on our second conclusion...
some students obtain degree in the health care to find “breakout points” from the nursing later. After revising the previously estimated rate of attrition we can state that another forty five nurses disappear from nursing after graduation.

Our assumption that the nurse students are satisfied with the standard of education and practice proved to be correct. In the respondents’ opinion it has average standard. Also, we have proved that the nurse students and the active nurses are rather dissatisfied with the nursing career. The students are discontented with the expectable financial and moral appreciation of the career as a nurse.

Our next assumption was that the intent of the nurse students and active nurses to continue their career is affected by the salary, the working conditions and the opportunities for further development. This fact has also been proved. According to the students’ intent to stick to this career most of them plan to complete their studies.

Our hypothesis that the intent of the nurse students and active nurses to abandon their career is affected by the foreign language skills has also been proved. Based on the results of our linear regression model the foreign language skills adversely affect the commitment to the career while the flexible working hours, the number of overtime, the opportunities for higher training and the age affect the commitment to the career slightly positively. Also, it has been proved that there is correlation between the higher school degree and the career’s abandoning among the students and active nurses. Fifty eight percent of the graduate nurses would work abroad.

Our assumption that there is correlation between the foreign language skills and the employment abroad of the students and the active nurses has been statistically proved. If they have at least elementary language skills 66 percent would work abroad. However, if they do not even have elementary language skills thirty five percent would work abroad. Also, we have found correlation between the marital status and the employment abroad of the students and the active nurses. Our last hypothesis that there is correlation between the students and the active nurses’ age and their intent to abandon the career has not been supported.

V druhom kroku prvej fázy Naším cieľom bolo posúdiť zámer sestier opustiť svoju kariéru a / alebo pracovať v zahraničí, navyše sa odhadnúť počet sestra študentov, ktorí chcú pracovať po dokončení školy, a pravdepodobnosť, že aktívna sestier bude pracovať ako zdravotné sestry v budúcom roku. Najčastejšie sme skúmali "input" (tréning) strane ošetrovateľstva. Dve tretiny študentov cítí motiváciu dokončiť svoje štúdia a pobytu v zdravotných sestier. Menej ako jedno percento pocit, že urobil zlé rozhodnutie, keď zvolili zdravotných sestier. Táto situácia sa zmenila, keď sme
požiadali študentov o ukončení štúdia. Celkový podiel žiakov, ktorí boli istí dokončení štúdia a tým, ktorí rozhodne nechceli dokončiť svoje štúdium sa okolo šestnástich percent.

Na podporu predpokladu, sme vybrali študenti dialkové štúdium, ktorí sú absolútne istí, že nebudú pracovať ako zdravotná sestra po promocii / ukončenie školskej dochádzky, preto skúmali ich odpovede na tému "Práca za zdravotnú starostlivosť". Neboli sme prekážené prierezové súladu. Preto sa na základe našich Druhým záverom niektórí študenti získali titul v odbore zdravotnej starostlivosti na nájdenie "útek bodov" z ošetrovateľskej neskonč. Po revízii pôvodne odhadovanej miery opotrebenia možno konštatoval, že ďalší štyridsať pät percent zmizne z ošetrovateľskej po dokončení štúdia.

Nas predpoklad, že sestra študentí sú spokojní s úrovňou vzdelenia a praxe sa ukázal byť správny. Podľa názoru respondentov je priemerný štandard. Tiež sme dokázali, že sestra študentov a aktívne sestry sú skôr nespokojni s ošetrovateľskú kariéru. Študenti sú nespokojní s predvídateľný finančné a morálne ocenenie kariéry ako zdravotná sestra.

Naše ďalšie predpoklad bol, že zámer sestry študentov a aktívne sestry pokračovať vo svojej kariére je ovplyvnená plat, pracovné podmienky a príležitosti pre ďalší rozvoj. Táto skutočnosť bola tiež preukázaná. Podľa zámeru študentov držať sa tejto kariéry váčšina z nich v pláne dokončiť svoje štúdium.

Hypotézu, že zámer sestry študentov a aktívne sestry opustiť svoje kariéry, je ovplyvnený tým, znalosti cudzích jazykov bola tiež preukázaná. Na základe výsledkov násho lineárneho regresného modelu jazykowych znalostí nepriaznivo ovplyniť záväzky k karière, zatiaľ čo pružná pracovná doba, počet nadčasových, možností vzdělava vekových jazykov a vekových záväzkov k kariére mierne pozitívne. Tiež bola preukázaný, že existuje korelácii medzi VOŠ vzdelanie a kariéru je opušťať medzi študentmi a aktívne zdravotná sestry. Päťdesiat osem percent absolventov sestry by prácu v zahraničí.

Nás predpoklad, že existuje korelative medzi cudzom jazykom a práce v zahraničí pre študentov a aktívne sestry bola statisticky preukázaná. Ak majú aspoň základné jazykové zručnosti, 66 percent by prácu v zahraničí. Ak však nemajú ani základné jazykové zručnosti tridsať päť percent by prácu v zahraničí. Tiež sme našli súvislosť medzi rodinný stavom a práce v zahraničiach študentov a aktívne sestry. Naša posledná hypotéza, že existuje korelácii medzi študentmi a aktívnu starobu sestier a ich úmysel vzdať kariéry nebola podporovaná.

We have compared the results of step two of phase one with the results of the NEXT test. We have examined the nurses’ intent to change their jobs if they stayed within the health care. Based on our results Hungary’s situation does not differ from the situation of the other NEXT countries. The rate of the nurses who want to change career but stay within the health care is only higher in Germany. Both in Hungary and in the European countries where the migration of the nurses within the health care was examined this rate was eighteen percent regardless of the country and the size of the sample.
Our next assumption was that eighteen percent of the nurses in Europe would be ready to change jobs within the health care. More tests would be required to find out the reasons, whether it is boredom, lack of interest or other reasons. Except for Belgium and the Netherlands the rate of the persons wanting the exit from nursing is relatively low in Hungary. This statement is supported by the fact that Hungary’s situation regarding the nursing labour force is not unique; the nurses have to face the same problems throughout Europe. It is unfortunate in connection with the Hungarian data that hundred nurse may exit from nursing out of the six hundred and fifty respondents based on their answers.

Another frequent phenomenon is that nurses abandon their career in our samples. Sixteen percent of our sample thinks of a work abroad quite often; this result is somewhere halfway between the Slovakian data (eleven percent) and the Polish data (twenty one percent) measured during the NEXT survey.

The most popular target countries are Germany and Austria presumably due to their geographical proximity and the volunteers’ foreign language skills. This situation will change soon. The next generation of the Hungarian nurses will have to pass an intermediate-level English language examination to receive their degrees.

Our survey also shows that the intent to work abroad was reduced by fifty percent if the nurse had a stable relationship. However, we have experienced the contrary when we have analysed the standard of education and the vocational experience. The loglinear analysis has revealed that the likelihood that graduated nurses who speak no foreign languages would work abroad is one and a half times higher than the likelihood that nurses with basic qualification who speak a foreign language would work in a foreign country.

The knowledge of a foreign language is the most decisive factor in an employment abroad. Those who speak at least one European language would work abroad with triple likelihood than the ones who speak only the Hungarian language.
starostlivosti je relatívne nízky v Maďarsku. Toto tvrdenie podporuje aj fakt, že v Maďarsku je situácia, pokiaľ ide o dojčení pracovnej sily nie sú jedinečné, sestry musia čeliť rovnakým problémom v celej Európe. Je nešťastné, v súvislosti s maďarskou dáta, ktoré sto sestra môže výstup z ošetrovateľstva z 650 respondentov na základe ich odpovedí.

Ďalším častým javom je, že sestry opustiť svoju kariéru v našom vzorky. Šestnášť percent nášho vzorky si myslí, že práca v zahraničí je pomerná často, tento výsledok je niekde na polceste medzi slovenskými dát (jedenášť percent) a poľských údajov (dvadsať jedna percent) namerané pri ďalšom prieskume. Najobľubenejší cieľovou krajinou bolo Nemecko a Rakúsko z hľadiska vzhľadom k svojej geografickej blízkosti a zahraničných dobrovoľníkov jazykové zručnosti. Táto situácia sa čoskoro zmení. Budúca generácia maďarských sestier budú musieť prejsť na strednej úrovni anglickej jazykovej skúšky, aby získali tituly. Náš prieskum tiež ukazuje, že zámer pracovať v zahraničí sa znížil o päťdesiat percent v prípade, že sestra mala stabilný vzťah. Avšak, sme zažili opak, keď sme analyzovali úroveň vzdelania a odbornej skúsenosti. Loglinear analýza odhalila, že pravdepodobnosť, že absolvovali medzinárodných študíj sestry, ktorí nehovoria cudzími jazykmi by prácu v zahraničí, je jeden a pol krát vyššia ako pravdepodobnosť, že sestry sa základných kvalifikačných, ktorí hovoria cudzím jazykom, bude pracovať v cudzej krajinie. Znalosť cudzieho jazyka je najviac rozhodujúcim faktorom pri zamestnaní v zahraničí. Tí, ktorí hovoria aspoň jedného európskeho jazyka bude pracovať v zahraničí s trojčasť pravdepodobnosťou než tí, ktorí hovoria iba maďarskom jazyku.

In step three of phase one the study’s primary objective was to determine the rate of the nurse students’ attrition in the Hungarian sample. The examined sample was characterized by attrition but its level has changed after the questionnaire had been evaluated. Eight percent of the students have indicated their intent to discontinue their studies or to continue their studies at another field (faculty of medicine or non-health faculties). When we have applied the combined attrition indices the rate has increased significantly. So the result we received was an attrition of twenty five percent. Our study provided further evidence that the support of the educational institution has critical role in keeping the future graduates in their career. Unfortunately, we have observed the increasing influence of the families and the contemporary groups which try to discourage the graduating students from working as nurses. In our regression model the faculty’s support counterbalances the negative influence of the families and the contemporary groups. The students will complete their studies and start working as nurses with higher probability if they experience that the educational institution and the clinic take their individual requirements into consideration.

In phase two the Hungarian and the Czech samples were compared and the found similarities show the similar behaviour of the nurses in both countries. From among the differences the standard of the qualification is rather remarkable which reflects the high standard of the Czech academic (college and university) education. After we had agreed the results with the foreign colleagues we have found that the Czech students have strong positive attitude towards the doctor’s profession. Many students consider the nurse training and the professional experience as an intermediate step to achieve their objective. Based on these facts we can expect that the changes in the foreign language skills in Hungary will affect the nurse training and the employment abroad. Among the secondary school students who apply for academic studies these tendencies can already been noticed in these days. The Czech results will tendentious in Hungary 3 years later.

V prvej fáze dvoch maďarských a českých vzoriek boli porovnané a nájdené podobnosti vykazujúce podobné správanie sestier v oboch krajinách. Z rozdielov úrovne kvalifikácie je to pozoruhodné, ktorý odráža vysokú úroveň českého akademického (vysokých škôl a univerzít) vzdělávania. Potom, čo sme sa dohodli, výsledky so zahraničnými kolegami sme zistili, že českí študenti majú silný pozitívny prístup k lekárskej profesii. Mnoho študentov za zdravotných sestier a profesijné skúsenosti ako medzistupeň k dosiahnutiu svojho cieľa. Na základe týchto skutočností možno očakávať, že zmeny v cudzom jazyku v Maďarsku bude mať vplyv na zdravotných sestier a zamestnanie v zahraničí. Medzi študentmi stredných škôl, ktorí žiadajú o vedecké štúdie je možné tieto tendencie už zaznamenať v týchto dňoch. České výsledky budú tendenčné v Maďarsku po 3 rokoch.
Conclusions

These facts may serve as a basis to make the following recommendations. It would be purposeful to increase the number of the students choosing the nurse career and of the students graduating as nurses. It would be necessary to restructure the system of the education and to make the intermediate-level education more attractive by reducing the time of the training and to include part of the learned curriculum into the future BSc education.

It is necessary to achieve that the competences of the graduate nurses (nurses with BSc degree), the university graduate nurses (nurses with MSc degree), and of the special nurses graduating from higher advanced special trainings after their graduation as BSc/MSc nurses (such as emergency and triage special nurses, intensive special nurses, surgery special nurses, dialysing special nurses, acute nurses) would be determined by an order. The headcount, the minimum number of nurses should be determined in the light of the capacity.

It would be important to try to achieve stability, calculability and safety. Moreover, the appreciation should be increased, the salaries should be normalized and a life career model should be elaborated and applied to increase the prestige of the nursing profession. It would be necessary to reduce the stress level, to elaborate helping services and to improve the working conditions. Within the Human Resources Strategy it is required to reduce the staff shortages and to meet the demographical challenges. It is crucial to achieve that more people choose this career and to reduce the number of those abandoning their nursing career. The above study shows that the system of the domestic conditions must be improved to discourage the nurses from working abroad.
demografickými problémami. Je veľmi dôležité, aby bolo dosiahnuté, že viac ľudí si vybral tento odbor a znižiť počet tých, ktorí opustili svoje opatrovateľské práce. Výsledky uvedenej štúdie ukazujú, že systém domácich podmienok je potrebné zlepšiť, aby odradit' od sestry pracujú v zahraničí.

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MOTIVATIONAL FACTORS TO SUSTAIN THE NURSES OF NEUROLOGICAL DEPARTMENTS

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Abstract
Motivation is an important personality feature that activates the performance and behaviour of nurses to the motivational profile and achievement of objectives. Motivational activities are very important factors, contributing to increased quality and efficiency of nursing care and thereby to the satisfaction of the patient in meeting his needs. The author of the paper focuses on motivational factors of the stabilization of nurses in neurological centres. We categorized factors that are the subject of research to the indicators, stabilizing factors of the nurse and stabilizing factors of the employer, health care provider.

Keywords: Motivational factors, neurological nursing, team, stabilization.

Introduction
The current dynamic period brought changes in all sectors of society. Significant changes have occurred in healthcare. There is an ongoing transition period in which the principles of health services are changing, with an increased emphasis on quality. Quality of service also depends on the stabilization of health personnel, particularly nurses. Long-term shortage of nurses may threaten the quality of services. Stabilization of nurses is an important attribute for ensuring continuous process of care at all stages, to provide comprehensive preventive, diagnostic and therapeutic care to patients with neurological diseases. Motivation which is tied to work process, we call the professional (work) motivation. It consists of several components: man's relationship to job, his/her work activity and attitudes, aspirations, ambitions and interests. Respect of these components is very important to sustain the nurses.

Objective: To identify factors that neurological nurses (working in the neurological departments of health facilities) find most motivating and contributing to the stabilization of nurses; to identify how the employer organization contributes to the motivation and stabilization and how nurses perceive the current level of motivation in the exercise of their profession.

Materials and methods
Set of respondents of the survey consisted of University Hospital Bratislava nurses working in different neurological workplaces, such as neurological departments, clinics, intensive care unit, neurophysiological department and neurological ambulance. Survey was attended by 100 nurses, was conducted by an anonymous questionnaire method, within two months. Return of the questionnaire was 80%. The questionnaire included 18 items and was created by 5 points Likert scale. Respondents should indicate the degree they agree with the statement item of questionnaire: 5 - totally agree 4 - agree 3 - I can not decide, 2 - disagree, 1 - completely disagree. Items in the questionnaire were aimed to identify the following indicators; what the sisters find most motivating and contributing to their stabilization in the neurological workplaces; how does the management contribute to the motivation of nurses and how nurses perceive the current level of motivation. Results obtained from the survey are processed through tables and graphs in Excel, by the method of arithmetic average and values are expressed in %.
Results
Based on these results we concluded that nurses in different workplaces identified different indicators they consider most motivating, but most of the respondents - 81.8% mentioned their professional relations as the most motivating factor and 75.31% of the respondents financial factors. Self-realization at work was an important motivating factor for 70.94% of respondents. 70.31% of respondents identified the possibility of education as a motivating factor and agent contributing to the stabilization. At least 69.38% of the total respondents mentioned personal fulfilment, arising from the exercise of their profession at neurological facilities.

Figure 1 Motivational factors contributing to the stabilization of nurses

We also examined how the organization management contributes to the motivation and stabilizing of nurses. We surveyed management approach, work organization, leadership style, interpersonal communication and awareness of what is happening in the organization. 66.56% of the respondents reported, that the above factors are sufficient. We examined occupational choice, why the respondents chose the profession of nurse. Almost 80.94% of respondents mentioned security of permanent employment, working hours, 71.88% answered shiftwork and 62.50% of respondents noted the image of the facility. On the basis of these findings 37.19% of respondents are considering a career change, regardless of the length of professional health practice, but most nurses of 20 years experience and more.
We surveyed how respondents perceived the current incentives of organization stabilization: 67.81% of the respondents reported that they are facing lack of incentives and 43.38% of respondents perceived it as sufficient and positive.

**Discussion**

In healthcare facilities, it is currently important to stabilize the professional staff, particularly nurses, who now have a wide range of career opportunities in the European region. The manager of nurses should analyze all the possibilities contributing to the stabilization of sisters’ motivation. The survey results acknowledge that the sisters’ indications concerning different factors varied, but more than half of nurses considered as an important motivating factor work relationships, which confirmed our assumptions. There are relatively few similar papers aimed at determining the motivational factors specific to the health profession. More authors are addressing the issue of motivation to choose an occupation as a job stabilization. In 2009 L. Pavlíková carried out similar survey on "Why nurses are dissatisfied? " in the Czech Republic. She found that 36% of the total of 134 nurses were considering a career change. 32% of nurses reported low salary as the reason and 29% inadequate working conditions, 27%, poor team work. Nurses in the CR mentioned stabilizing factors, like our respondents, a good work team, and work relationships. Based on the observed results we can state that results in CR do not differ significantly from our findings. Our assumptions confirmed that the salary is insufficient stabilizing element of the employer since nurses with the most experience and extensive knowledge of the nursing profession tend to change jobs.

**Conclusion**

The occupation of nurse is one of the most beautiful but also most difficult professions. We can hardly imagine functioning health facilities without sisters. Low socio-economic evaluation and low motivation create a space for nurses to leave for richer countries or economic orientation to another profession. It is the role of a whole society to stabilize the nurses in their profession. The aim of management in health care facilities at various levels is to develop effective motivational tools. Managers of nurses play a crucial role in the motivation process.

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**Figure 2 Expression of a career change according to length of service**

We surveyed how respondents perceived the current incentives of organization stabilization: 67.81% of the respondents reported that they are facing lack of incentives and 43.38% of respondents perceived it as sufficient and positive.

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QUALITY MANAGEMENT IN NURSING

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Quality is a concept that is being expected in every field and enhances the expectations and it is being described as a product or service that meets the patients’ needs and wishes. In quality studies, joining of everyone (team work), continuous improvement (problem solving and protecting approach) and participative management are basic and necessary functions. In the article, I am tried to emphasize the importance of quality and quality in nursing services.

**Key words:** Nursing, Quality Management, Quality Circle in Nursing.

**Quality**

In the result of technological developments and economic, social and political changes in our present day, the understandings of management have changed, and participating management approaches which will provide the survival of the organization and facilitate the changing have been started to be adopted, quality and productivity have become the key of the superiority in competition.

The concept of quality is not an entity which is put forward in recent times. It has been taken over for ancient times. For the first time, people have met with the expression about quality in laws of Hammurabi in Before Christ. The developments about the quality have gained speed after 19th century. From the past when modern industrial systems existed to the over present day when we have experienced knowledge and technology age, along with the changes experienced, taking on quality and its philosophy have also changed.

It is difficult to find a single quality definition which will be accepted by everybody in our present day. In changing time, a number of changings have taken place in the definition of the quality. In short, quality means the satisfaction of the consumer. Quality is to comply with the conditions for the first time and in time and every time. Particularly, quality rising during the last two decades has been standardized in recent years, and it has reached at a management philosophy beyond this.
Deming bringing a systematic approach to the quality development has aimed continuous improvement and development with the Quality /Deming Circle consisting of four stages, planning, do, check, act.(PDCA)

**Quality in Health Services**

The quality in health services is the components of factors between people and scientific/technologic factors which will provide the patient or individuals to reach at functional situation, and enable the slowness in the improvement of individual’s health to stop.

Along with the application of total quality management in hospitals, the quality in offering of the service, labor satisfaction and motivation of the workers, modernization of management and organization methods, fluidity in decision mechanisms, documentation of knowledge systems, the functionality of commination mechanisms patient satisfaction, improvement of equip work or spirit of team and economic benefits for the public will be also provided.

In the offering of health services, as the product is patient/health, individual, the smallest mistake may lead to the result which will not be taken put for. So, quality services should be offered in health services, and quality care should be given. The man purpose of all organizations including the hospitals is to provide continuous survival of the organization and improve organizational performance indications. In the hospitals which are the most controversial serving area, due to direct intervention in the human life directly, working with zero-error has been aimed. This is possible with increasing effort of quality and improving of quality.

The fact that health services are of a dynamic structure faces to a great difficulties in achievement of the success for a qualified health services the fact that necessary sources are delivered productively and the fact that the service is offered efficiently and the fact that equality and justice while giving services are provided and the satisfaction during offering the service should provide to the receivers of health service.

In order to provide the quality in health services, the elements making up of the infrastructure, and offering of medical care and other services by the workers, and receiving process of these services by the patient and the effects of the services on the patient and health level of the community, in other words, the results /outputs should be followed with a great care and should be improved.
For the quality, improvement studies in a firm;

57. Organization of management should form organization plan defining the affairs with mecal and administrative staff and the line of communication, the responsibilities in clinic about administration.

58. Policies and procedures defining clearly the responsibilities in patient care and the all administrative staff should be prepared.

59. As to forming of staff, according to the patients’ needs in the clinics, nursing staffing need should be determined, and provided, and their orientation to the organization should be provided.

60. As to equipment, facilities and material; in every patient care unit, equipment and materials which will provide possibility and quality for suitable patient care should be provided.

In order to form a successful quality program, firstly, the measurement of existing quality level should be made. In order to determine existing quality level, it is necessary to take advantage of the records and reports, from special evaluation workers, and researches oriented to the people and community. The standards which will provide exactly the pursuing of administrative process and treatment of individual/patient should be determined.

Before determining existing quality level, the aim of that service standards, and criteria for following those standards should be determined. After determining existing quality level, in order to improve and develop this quality level, improving plans should be made according to problematic areas, and new quality level should be determined and available standards and criteria should be reviewed, and quality level of the service should be always controlled and improved.

**Quality in Nursing Services**

Nursing services should be conducted with equip study approach in coordination with other units of the hospital. The aim, in the direction of patient’s and his/her relatives’ expectations is to apply a good planned nursing care. Nursing services indicate minimum value of nursing care services which will be given to the patients. For qualified nursing services, what nursing service is should be determined clearly, and labor analysis of nursing service staff should be made, and the definition of labor should be formed, and the standards of performance
evaluation should be formed, and continual evaluations and improvement should be made, and finally the standard of evaluation of the qualification of nursing service should be formed. According to the philosophy of nursing services, taking under the security of nursing care is one of the most important responsibilities of the nurses. In offering qualified care to the individual, the knowledge and skill of nursing and interest and desire against the work play a significant role.

In order to provide quality security in nursing, various models have been developed. These application steps formed in providing quality security in nursing is similar to quality circle if Deming pioneering of quality (Plan, Do, Check, Act).

80. **Defining stage:** In this stage, professional values, standards and criteria are determined.

81. **Take an action stage:** According to the results, available situation is compared with the situation which should be. And, in order to achieve the standards, a plan is made, and in order to improve the nursing quality, necessary applications are defined, and the application starts.

82. **Measurement stage:** by using nursing criteria in the field of nursing applications, it is evaluated whether the achievements to the standards are, and by means of these evaluations weak and strong directions are determined. In order to determine weak and strong aspects of given nursing, certain evaluations and measurements should be done.

In order to measure the quality of nursing care, various quality measure methods have been developed. To use of one of these tools will facilitate the offering of nursing services with a desired level. Measurement tool of nursing care provide retrospectively or spontaneously data collection about the system, and gives knowledge about the level of given nursing. Along with ISO standards providing continuous improvement of the quality of health and nursing services, accreditation and magnet standards etc.), satisfaction measurements and nursing care measurements tools and quality indicators are taken advantage in the determining of service quality.

Patient satisfaction measurements giving knowledge about nursing quality is combination of taken quality and expected quality. The patients make evaluations by expressing their thoughts about services according to the difference between the experiences they gain by making use of the services and expectations about the services. Patient satisfaction a indicator
duty in the quality of nursing services. Patient satisfaction reflects a lot of knowledge about result criteria and process and structure of health services.

Patient satisfaction has been affected from the factors such as security, information about the illness of the patient, and physical factors, the behavior of the staff and interpersonal affairs at the hospitals. It is known that the patients who are not satisfied with the service they took shared more their experiences with others than those who are satisfied. Thanks to patient focused care in USA, the satisfaction of patients has increased considerably, and the hospitals have reached at more competitive structure, and the level of clinical care has increased, and staying duration at hospital and cost resulting from service defects have reduced and the process of the patients has been fast.

Quality indicators are those providing numeric data which will be used in evaluation, and determining services quality and becoming important for patient care. For example pressure wounds rates, intravenous catheter complications, the number of invasive attempts, the rate of falling form bed, wrong medicine usage are some subjects which may be indicators of quality for nursing care. The indicators are not direct measurement of the quality, but provide evaluation about the quality.

In the taking secure of nursing care, the use of this kind of quality management process provides improvement in all fields of nursing, education of nursing, nursing management, and in the research of nursing; in conclusion, it provides improvements in nursing profession and services.

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Abstract
Every disease, and specifically diseases with long-term consequences and limitations for patients, can cause anxiety. Anxiety negatively affects the process of care and treatment, thus it can affect the patient’s condition, and the course and consequences of a disease. In the paper we present the incidence of anxiety in patients with cardiovascular diseases by medical diagnosis, gender and age of patients. We also depict the advantages of objective assessment of anxiety from the nursing perspective. The data were collected by observation with the use of the assessment scale of the classification system of nursing outcomes to assess anxiety level. We used the comparison analysis to test statistical significance using the Student’s t-test for two independent samples. The findings suggest the anxiety level is higher in patients with ischemic heart disease. Anxiety level is higher in females than in males. Age as a variable also affects anxiety level. Anxiety level was higher in the younger age group of the patients. The precise diagnosis of anxiety and recognising the factors that can affect its incidence and level are the important steps for effective and quality care and for favourable development of patient’s condition.

Key words: Ischemic heart disease. Arterial hypertension. Anxiety. Classification systems. Assessment.


Introduction
Diseases and the related circumstances act as stressors. Confrontation of the patient with a stressor determines the emotional or behavioural responses; the negative emotions and anxiety occur (Lazarus, Folkman, 1984). Such a condition appears practically in every care setting. Nursing based on bio-psycho-social model focuses not only on the biological part of patients
but also their psychological and social parts, and it is implemented also in applying the interventions in care. The patient-nurse interaction is very important as they are in the biggest interaction.

As Líšková and Krištofová (2004) present, patients in interaction with nurses expect to be listened to and also to feel the strategies for management of their problems. The incidence of anxiety as a nursing diagnosis is very frequent. From nursing perspective, anxiety is described as an unpleasant feeling of worries caused by anticipated danger from disease or the situations related to the disease. NANDA-I (2010) defines anxiety as a vague uneasy feeling of discomfort or dread accompanied by an autonomic response (the source often nonspecific or unknown to the individual). It is an alerting signal that warns of impending danger and enables the individual to take measures to deal with threat (Herdman, 2009).

Many studies present the relation between psycho-social aspects and the onset of cardiovascular diseases; there is an increased risk of early death in many cases. By contrast, cardiovascular diseases cause some psychic phenomena such as anxiety, fear and tension.

Anxiety reduction is an important intervention in effective treatment and care. Many studies describe the issues of evidence-based nursing interventions related to the incidence of anxiety in patients with various diseases (cardiovascular, neurologic, oncologic), in various care settings (hospice, critical, surgical, medical, oncologic care) and suggest similar researches in future.

The most effective way to manage anxiety is precise planning of nursing interventions to reduce anxiety, which requires accurate nursing diagnosis of anxiety. The paper focuses on effective strategies of anxiety reduction which starts with accurate diagnosis of anxiety by nurses and follows by systematic planning and implementation of nursing interventions. We use the NNN Alliance which combines: 1) NANDA-International (The North American Nursing Diagnosis Association) nursing diagnoses classification, 2) NIC (Nursing Interventions Classification) with an extensive set of nursing interventions and activities that are based on evidence-based practice, and 3) NOC (Nursing Outcomes Classification) with a set of assessment criteria to evaluate development of patient’s condition and to evaluate the effects of applied interventions (Ackley, Ladwig, 2008; Vörösová, 2007; Mastiliaková, 2002; Vejvalka, Marečková, 2000).
The objective of the paper is to evaluate the incidence of anxiety as a nursing diagnosis in patients with cardiovascular diseases by medical diagnosis, gender and age of the patients. According to the findings of Shibeshi (2010), the high anxiety level was present after diagnosis of ischemic heart disease. Watkins (2010) presented significantly higher level of anxiety in females with ischemic heart disease than in males. Based on the theoretical findings of various studies we expected anxiety level to be higher in patients with ischemic heart disease and the level of incidence of anxiety to be higher in females. We also expected anxiety level to be higher in a group of younger patients with cardiovascular disease.

**Material and methods**

The sample included 50 participants, including 25 patients with ischemic heart disease and 25 patients with arterial hypertension. We obtained the data for verification of the research hypotheses by observation. We objectivised anxiety level with the use of the selected scale of nursing outcomes NOC – Anxiety level 1211 which assesses the severity of manifested apprehension, tension, or uneasiness arising from an unidentifiable source. It contains 31 indicators that are evaluated by the Likert-type scale (1 severe to 5 none). Within the bivariate analysis, we used the comparative analysis between two samples. For statistical testing we used the Student t-test for two independent samples. The statistical inference of the Student t-test for two independent samples for diffusion analysis consists of two parts (Sollár, Ritomský, 2002).

**Results and discussion**

Inpatients with ischemic heart disease, the average level of anxiety level was AM = 2.07 (substantial anxiety level), the standard deviation was SD = 0.69. In patients with arterial hypertension, the average level of anxiety level was AM = 2.63 (moderate anxiety level) and the standard deviation SD = 0.14. The testing criterion was $t = 6.062$ and the level of significance was $p < .001$. Based on the findings we present the statistically significant difference in anxiety level in patients with ischemic heart disease and arterial hypertension (Table 1).

Some studies suggest that mild anxiety improves learning and adaptation, but moderate to substantial anxiety can impede or immobilise the progress. It can also represent the impeding factor for treatment, complex care, thus for overall development of patient’s condition.
The study in Massachusetts, USA, examined if anxiety worsens the prognosis in patients with ischemic heart disease. Specifically, it studied the effects of anxiety on mortality and morbidity of myocardial infarction in patients with ischemic heart disease. The authors performed the prospective study with the conclusion there was high anxiety level after diagnosis of ischemic heart disease, and it was a high risk for myocardial infarction or death in patients with ischemic heart disease (Shibeshi, Young-Xu, Blatt, 2007).

From nursing perspective, the important variable which could affect the incidence and level of anxiety in patients with cardiovascular diseases is a gender. In females with ischemic heart disease, the average level of anxiety level was AM = 1.67, the standard deviation was SD = 0.31. In males with ischemic heart disease AM = 2.51 and the standard deviation SD = 0.16. Anxiety level was higher in females than in males. The testing criterion was t = 8.352 and the level of significance p ≤ .001. We found the statistically significant difference in the incidence and level of anxiety between the genders. Anxiety level in females with ischemic heart disease is higher than in males with ischemic heart disease (Table 2).

Some findings of the studies confirm the significantly higher anxiety levels in females with ischemic heart disease than in males (Watkins, Blumenthal, Babyak, Davidson, McCants Jr., O’Connor, Sketch Jr., 2010).

Another study focused on psychological and somatic symptoms of anxiety and a risk of cardiovascular diseases. The objective of the study was to examine the extent to which the...
psychological and somatic elements of anxiety are predictive of ischemic heart disease. Somatic symptoms of anxiety were associated with ischemic heart disease in females (Nabi, Hall, Koskenvuo, Singh-Manoux, Oksanen, Suominen, Kivimäki, Vahtera, 2010). From nursing perspective, another significant variable in patients with cardiovascular disease and anxiety is age. We expected anxiety level to be higher in younger patients because of their lower age and their more active way of life and role performance than in a group of older patients. We found the statistically significant difference (p = 0.02 and p = 0.01) in patients with cardiovascular disease in both medical diagnoses (Table 3).

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<th>Table 3 Comparison of anxiety levels by age</th>
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Likert-type scale: 1 – severe, 2 – substantial, 3 – moderate, 4 – mild, 5 - none

It has been presented that the elderly state less worry than the younger adults. Our findings also show that anxiety level is higher in the group of younger patients than in the elderly, and they suggest that the elderly experience anxiety but in different level compared to the younger adults.

**Conclusion**

Assessment of anxiety as a factor which can affect the process of care and treatment is essential. The use of NOC for nursing diagnosis of anxiety is the most important element to facilitate beneficial development of patient’s condition. Precise diagnosis results in effective management of nursing interventions to provide quality care and treatment. Slamková and Vörösová(2010) also describes the advantages of selected sets of NOC, specifically for the nursing diagnosis **Decisional Conflict** which also relates to psycho-social context. Cetlová and Dvořáková (2010) recommend further education for healthcare professionals that would include psychological approach in different types of patients’ behaviours. We positively affect care for patients, development of modern and professional nursing by the presented findings.
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SUPERVISION - THE REFLECTIVE PRACTICE METHOD IN NURSING

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Summary
The issue of supervision, or the reflective practice method, in Czech nursing is being developed with the support of an Internal Grant from the Silesian University in Opava. The authors are looking for a way to conceive and implement this method in nursing practice in the Czech Republic, without having nurses connect it with negative emotions or feelings that it presents a personal or professional threat to them. Systematically conceived and implemented supervision - reflective practice method is lacking at present in nursing in the Czech Republic. In the article partial outputs of the resolved grant project are presented, among others e.g. a concept for a course which should start interest among healthcare facility management in implementation of the reflected practice method for nurses.

Keywords: nursing, nurse, supervision, reflective practice

Definition of the Term
The meaning of the term supervision is scrutiny, oversight, control, management, inspection. The term is used in this original meaning in the Czech Republic as well (the Czech Ministry of the Interior has a supervision department, which is focused on inspection. Managers of various levels and focuses use the term supervision in its original sense mentioned above - scrutiny, management.) This meaning of the word supervision is also the one that is most commonly known among nurses. In fact, persons enrolled in the classroom form of the Bachelor’s study program for the Registered Nurse field, who had never heard the term supervision, deduced its meaning by separating the word into parts. They perceive the
meaning of these parts of the term as follows: *super* - something which is above and/or which is at the top, the best, *vision* - scrutiny, oversight and/or a notion about the future. Thus they deduce that this involves some sort of oversight or scrutiny of someone who is more experienced, in a higher position, who is a leader in his/her field, and/or also a top level - exclusive notion of the future - e.g. in the nursing profession. Their notions are not primarily connected with something which is unpleasant, a threat or even devaluing.

Far more often, at the present the term supervision is however used in a significantly shifted meaning and in a different context in the helping professions, particularly in psychotherapy, and from there it is gradually making its way into additional helping professions, including nursing. (Kopřiva 2006, p. 136) However, the term “supervision” is not accepted universally by the helping professions. In the nursing field, the term *reflective practice method* is also used (see e.g.: Clouder, Sellars 2004, p. 262 - 269).

Since 1989 a significance shift has taken place around the world in the use of consulting and therapeutic approaches in many helping professions. According to Hawkins and Shohet (Hawkins, Shohet 2004, p. 18 – 19) “*the supervisor must bring together the role of educator and the role of the person providing supervised support, and in the majority of cases managerial supervision of his/her clients as well.*” It is not always possible, however, to combine these three functions (educational - support - managerial) problem-free or to coordinate them and in some helping professions this problem can be a fundamental one (although it is not impossible in certain situations - see integrated supervision style). Several professional associations have prepared ethical guidelines, accreditation systems and professional standards for supervision in their field.

**Defining supervision:**

Hess (Hess 1980, p. 25) defines supervision as “*a pure interpersonal interaction, whose general goal is for one person, the supervisor, to meet with another person, the supervised, in an attempt to improve the ability of the supervised person to help people effectively.*"

The definition from Loganbil et al. is also commonly used in supervision (Loganbil et al.,1982): “*supervision is intense, interpersonally focussed on an individual relationship, in which the task of one of the persons is the simplify the development of the therapeutic competencies of the other person.*"
In its first document on supervision (Hawkins, Shohet 2004, p. 59) the British consultancy association states: “the primary meaning of supervision is protection of the client’s best interests.”

The definition of supervision according to the qualification requirements of the Association of Marital and Family Consultants in the Czech Republic (Kopřiva 2006, p. 136): “Supervision is understood as a consulting method leading to reflection of marital and family consultants’ own professional behaviour.”

If we were to borrow this definition and apply it to the field of nursing, then the definition for nursing could be stated e.g. as follows: “Supervision in nursing is a consulting method and process leading to reflection of nurses’ own professional behaviour, doing so through intense, interpersonally focused individual or group relations, in which the goal of the supervisor is to simplify the development of nurses’ competencies (clinical - therapeutic, managerial, pedagogical etc.). The primary goal of supervision is always the protection of the client’s best interests.”

Supervision in Czech Nursing at the Present
In the Czech Republic, psychiatric nurses traditionally have the richest experiences with supervision, the reflective practice method. Their supervision (in the past this involved “employee training” in the field of psychiatry) is managed either by a psychiatrist or psychologist and focused most often: on mental health, prevention of the burnout syndrome, communication among nurses and work in their teams, as well as on work with mentally ill patients. The positive impacts of this “employee training” system or supervision can be proven - see e.g. the study of Hosák, Hosáková and Čermáková (Hosák, Hosáková, Čermáková 2005, p. 203): “…The results of our work document a statistically significant lower burden of the syndrome of professional burnout among nurses working in the psychiatric treatment facility versus mid-level healthcare workers working at the internal medicine department of a general hospital. One explanation may be the professional knowledge and skills which workers in psychiatry receive in the mental health care field and management of high-stress situations. This supports the suitability of training employees in healthcare outside of the field of psychiatry in the prevention of and coping with burnout syndrome.”

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We also investigated experiences with supervision in interviews directly in clinical nursing practice. The experiences on an imaginary scale in both fields – are positive and negative. E.g.: the testimony of a nurse from a triple shift work system: “... it’s great when someone is interested in what I think and how I feel.” The testimony of the manager of a large hospital: “We organised targeted supervision for nurses in the Anaesthesiology, Resuscitation and Intensive Care Department. It was administered by a supervisor who had been educated in psychology. His conclusion - the staff was frustrated by confrontation with the death of patients. I evaluate that as an irrelevant outcome. Relatively few patients die in this workplace and we did not see it as a key problem. Among the nursing staff of this division there was a situation the entire work collective of nurses had been replaced, and the new nurses were not sufficiently experienced, had only minimum support from more experienced colleagues and were also competing for positions in the team, which of course only worsened the situation, and the tension in the team and in individual work groups was very strong. This supervision did not help us or the nurses in any way.”

The other area in which Czech nurses have been most frequently confronted with supervisions in the recent past is that of social and social healthcare services. Since 2004 supervisions in the social sector have had direct statutory support.

In social and social healthcare facilities, supervisions are organised and thematically oriented primarily towards social workers, not nurses. Supervisors are then either psychologists or social workers with education in management and supervision. The experience of nurses with supervisions of this kind is e.g. as follows: “Yes, supervisions go on in our facility, but our nurses do not want to go to them - they don’t know what to do with them.” Or: “Supervisions are for social workers, and so we just sit there and it does not mean anything to us. It’s a waste of time.”

If external supervision projects are carried out in healthcare facilities and aimed at nurses, then they are implemented by the above-mentioned specialties of supervisors (or in some cases some of them are originally from the nursing profession, but have not been actively working in the field for several years, as a practical matter they are outside of the nursing field). These supervisors offer their services as a rule as self-employed persons working with a trade licence. The services they provide are primarily oriented to the areas of burnout prevention, team formation, communication in a team, management of crisis situations in work teams, and emotional problems which are connected with caring for selected categories
of patients. Thus they offer topics in their actual professional focus (managerial, psychological, social), not topics in nursing, according to the needs of the professional focus of their clients. Among other things, as part of our study of literature we completed an overview of the literature on the topic of supervision which had been published in Czech nursing periodicals from 2000 - 2010, and found just six articles. No work contained research in the field, nor was any focused theoretically - none analysed the concept of supervision in nursing. All the articles had been written as motivational pieces with the goal of getting clients, and by persons who offered supervision as part of their business. One piece was written by a specialised assistant from the Institute of Nursing. However, this study discussed “supervision” of the clinical nursing practice among students in the registered nurse field, which is led by a mentor and “supervised” by a pedagogue from the school.

**Conceptualisation of Supervisions for Czech Nursing**

If in the Czech Republic at the present time we are looking for “new” ways to support and develop nurses in a targeted way, then *supervision - the reflective practice method* may be one of the tools which could be implemented in the Lifelong Learning system in the Czech Republic. It is, however, necessary to conceptualise and develop an occupational nursing supervision in which primarily registered nurses who have earned at least a master’s degree in the field, from a certain age and with extensive practical experience in the field will be involved. It is also necessary to profile nursing supervision internally. In this way a specific space would also be created for secondary supervisors with a different focus than nursing, so that they could provide targeted and effective help to nurses if they themselves need their focus for their professional development.

The international nursing literature has sufficient studies which research supervision in nursing and conceptualise its framework. E.g.: Since 1999 already Australian work offered four supervision models which it derives from ethical contexts: *supervision oriented towards the services provided, supervision oriented towards cases, supervision oriented towards principles and supervision oriented towards values.* (Severinson, 1999) A lot of important information can be found in articles in the Journal of Nursing Management magazine. When looking for a conceptualisation for occupational supervision, it is also possible to go by monographic sources. E.g.: 1) Stephen POWER, 1999, *Nursing Supervision. A Guide for Clinical Practice.* 2) BOND, M., HOLLAND, S., 2009, *Skills of Clinical Supervision for*
Nurses. 3) BUTTERWORTH, T., FAUGIER, J., BURNARD, P., 2001, *Clinical Supervision and Mentorship in Nursing*. etc.

In the framework of the Silesian University grant project we are trying at the Institute of Nursing to develop supervision for nurses from contractual healthcare facilities and subsequently are attempting, through this direct local experience, to draft the concept for occupational supervision in nursing for the Czech Republic, concurrently with the study of literature and implementation of additional partial studies.

**Objectives of the Grant Project**

1) To map out the needs of reflective practice (nursing supervision) among nurses in contractual healthcare facilities of the Institute of Nursing, Faculty of Public Policy of the Silesian University in Opava.

2) To prepare and provide for the trial period the opportunity to use supervision for nurses from the abovementioned healthcare facilities.

3) To draft a clinical nursing supervision implementation model for operation of the given healthcare facility.

**Methods**

Within the framework of the resolved grant project, interviews were carried out (with students, with nurses from clinical operations, with nursing management, with a supervisor from the field of social work and with a psychologist), questionnaire enquiries were implemented and we are preparing direct work with a group of nurses – a six-month group supervision.

**On-going Results**

*Supervision* is a term which it is probably more appropriate in the field of nursing and on the level of occupational consultancy to replace with the term “*reflective practice method*”.

We have prepared a proposal of supervisions for specific healthcare facilities. In order to find interested persons and conclude a contract with hospital management, we have prepared supervisions in the form of a six-month course, for which we will achieve registration with the Czech National Association of Nurses, so that they will get credits in the lifelong learning system for attending the course for repeated registration.
Schedule of the Course

As part of Internal Grant IGS/20/2011 the course will take place from September to December 2011, once a month in the scope of 4 hours of instruction. The course will thus contain a total of 16 hours of group professional supervision. The supervision is not oriented towards, nor does it attend to the interpersonal relations or psychological or psychiatric personal problems of its attendants. The course will be provided to participants free of charge in the framework of the resolved grant. The number of participants in one course is set at a minimum of 10 and a maximum of 25 persons. The sponsor and lecturer in the course = supervisor in the course is Mgr. Lenka Špirudová, PhD, the main grant solution provider. Expert supervision for course lecturers is provided by PhDr. Jaroslava Králová from the Medical Faculty of the Palacký University in Olomouc.

The goal of the course is:

− to provide a space for nurses for reflection and self-reflection on selected problems of their professional practice
− to teach nurses how to actively participate in their individual, systematic lifelong learning and personal professional development
− to develop in a targeted manner work in a group, to cultivate group dynamics
− to enable sharing of experience and looking for roads to improvement
− to implement the first reflective professional practice for nurses in a form which is acceptable to them and thereby to gradually create space for the implementation of individual and team supervisions, similar to the situation for other helping professions.

14.

15. Contents of the Course

16.  1) Uniform introduction for all groups - MANDATORY PART (1x 4 hours)

3. Key competencies for nurses - outputs of projects and their impacts on education of nurses

4. What is supervision in nursing and how can it be used

5. How the theme is defined and how a contract is concluded
6. The creation of a contract for subsequent work in the course - offering according to the focus of participants (for clinical nurses - for mentors and introducers to practice - for operational nursing management)

7. The creation of a personal development plan

2) What is reflective practice, or supervision, in clinical nursing
   - designed for CLINICAL NURSES - optional part (3x 4 hours)

8. How to approach burnout syndrome and whether meaningful lifelong learning will help me
9. Company culture and my culture as a nurse, as a person
10. What is emotional intelligence about and does a nurse need to be emotionally intelligent?
11. We work in teams, we communicate in teams
12. In what areas do I want to improve? What would I like advice on? And how will I do this? (Problem solving)
13. The subject of my work is supposed to be the needs of the patient conceived holistically
14. Nursing diagnostics are difficult and unclear to me
15. I would like to learn how to write a professional article
16. I do not know how to search in e-databases and work with EBN (Evidence Based Nursing) method
17. Do I provide top-level, professional care to my patients? How can I tell?
18. Spirituality is something that I don’t know how to “grasp” and work with among my patients
19. Are our patients informed or educated? What do we actually provide to them?
20. Open topics depending on the contract ............................................................

3) Reflective practice FOR MENTORS and FOR INTRODUCERS to clinical nursing practice - optional part (3x 4 hours)

1. What being a clinical nursing practice mentor means to me
2. What starting employment means for a nurse and what training a new employee means to me
3. How can I prepare for work with a student/a starting nurse
4. Direct management of the studying/starting nurse in the conditions of my clinical practice
5. I keep documentation of a mentor on clinical nursing practice/introducing to practice
6. I evaluate the person studying in clinical nursing practice/starting nurse in the process of introduction to work
7. Open topics depending on the contract ............................................................

4) Reflective practice - supervision for OPERATIONAL NURSING MANAGEMENT - optional part (3x 4 hours)
24. We meet with the nursing service quality management
25. We implement risk management and extraordinary event management
26. What is managed care and what tools can our nurses work with?
27. Power and its forms. Do I use power and not abuse it in my work?
28. Do my nurses have sufficient room for the fulfilment of their professional roles?
29. My profession has a problem - its image!
30. Open topics depending on the contract ............................................................

APPROACH AND METHODS OF WORK IN THE COURSE

In the preparatory phase
- With the management of the contractual healthcare facility (Opava Hospital) it will be decided for whom this supervision testing course will be designed - whether it will be offered to nurses from operations, mentors or ward nurses.
- The course will be registered as an educational event for nurses in the lifelong learning system.

The Course of Individual Course Meetings
First meeting ......September 2011: - initial questionnaire on supervision
- first mandatory topic
- selection of additional topics - contract for the next three meetings
Second meeting .......October 2011: - work with the problem selected, which was in the course offering

Third meeting ... November 2011: - work with the problem selected, which was in the course offering

Fourth meeting .......December 2011: - work with the problem which the group itself requested at its first meeting. Exit questionnaire on the course goals. Presentation of certificates to those who completed all four meetings.

Methods of Work at Individual Meetings
- presentation, discussions, self-reflection, problem solving in a group, practical exercises according to model situations, role play, stories, case reports, maximum use of activating and interactive work methods, EBN, analytic methods, heuristic methods, creative, contact and participatory methods, use of synthesis, work with generalisations, use of group dynamics...

Partial Results
The reflective practice method - occupational supervision can be implemented in the conditions of Czech nursing. The process of implementation in the operation of healthcare facilities is slow; what is absolutely key is building trustworthy relations with those supervised and then respecting their development needs. The strategy chosen at the beginning, the personality and expertise of the supervisor are all key.

As part of the work supported by the grant, we have already been able to negotiate a supervision contract with the management at the hospital, which is key for the nursing practices of our students. We assumed that the offering of supervision among mentors of clinical nursing practice, or among starting nurses in clinical operation, would be easily acceptable. In practice, however, it turned out that hospital management has a priority interest in supervision in the area of operational nursing management. It was thus agreed that ward nurses who do not have a university education and who are not at the present studying at university, who need to update their skills, need motivation and also need to improve their professional confidence and acquire new skills will be sent to the course.
Conclusion

Because fundamental healthcare reform is being prepared, Czech nursing needs to strengthen and look for new forms and methods of working with nursing staff, the goal of which must be:

a.i. the improvement of independent decision-making skills and the nurses’ ability to take responsibility in its full extent for nursing care which was planned and provided

a.ii. it is necessary that the quality, safety and topicality of nursing services provided were further effectively increased

a.iii. it is necessary to create space for the discrete and non-threatening resolution of problems which a nurse does not know how to approach and which could compromise her reputation in the work team or even deprive her of her job (e.g. see burnout syndrome, work with patients in extreme existential situations etc.) (See e.g. Hosáková, Adamczyk, 2010)

a.iv. it is important that healthcare facilities implement a system of actively caring for the mental health of their nursing staff, become involved in improving the effectiveness of lifelong learning for nurses and also that they take part of the responsibility for registrations among their nurses

a.v. dissatisfaction with work conditions continue to rise, nurses are increasingly frustrated at work and interest in this profession is starting to decrease in society.

One of the possible methods which could help is supervision - the reflective practice method. There are, however, numerous problems which for now are preventing its wider use in Czech practice. E.g.: lack of trust of nurses and their sense of being threatened and devalued. Further there is the problem of accessibility of supervisions due to the work schedule of nurses. Nursing also lacks a concept of field supervision and does not have clarified its requirements for a supervisor in this regulated professional field. Last but not least there is also the problem of the cost of a supervision session. Individual supervision is offered at CZK 400 per hour, and group or team for CZK 1,000 per hour for a maximum of 10 participants. For this reason, as well, it would be desirable for the healthcare organisation in which nurses work to help maintain their expertise.
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The article is dedicated to Internal Grant of Silesian University in Opava reg. no. IGS/20/2011: Mgr. Lenka Špirudová, PhD. Professional consultation (clinical nursing supervision) - the needs and possibilities for implementation in practice in contractual healthcare facilities of the Institute of Nursing, Faculty of Public Policy of the Silesian University in Opava.
The non-communicable (civilisation) diseases, their risk factors and prevention

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Abstract

Non-communicable (civilisation) diseases play a crucial role in nowadays hectic world, full of traps and surprises. Civilisation diseases are chronic and they make the quality of patients life to be worse. Civilisation diseases are the reason for many temporary and permanent disabilities. At the time when some signs of civilisation disease appear probably it is too late to solve the problem - prevention is on the first place. At that time one or more organs and organ systems could be affected. Today on the first place there are cardiovascular diseases, but it is completly different situation to the year 1900. At that time infections and malnutrition were most common reason for death, especially when appearing in epidemic. Coronary disease is the most frequent fatality cause in industrially developed countries. Men are more often afflicted than women with the ratio of 4:1, however, at the age up to forty, it is as high as 8: 1, and at the age of seventy it is 1:1. Cardiovascular diseases represent more than 10% of all diseases all around the world also at the end of the twentieth century. Nursing is a scientific branch which integrates knowledge of other sciences dealing with the study of human beings, society and environment. The most characteristic feature of nursing is the complex approach towards man in order to preserve and support health, and in prevention and care of the sick. Nursing also plays a significant and irreplaceable role in prevention, therapy and dispensatory care of cardiovascular diseases.
Key words
Non-communicable diseases - cardiovascular diseases - endothelium - arteriosclerosis risk factors - prevention

Introduction

Civilisation diseases became the most common health problem in last years not only for the patients with some of that sort of disease but for the whole community, too [Barker 2001; Baštecký at al. 1994; Coughlin at al. 1994; Fűsgen 1996; Pacovský 1994; Pickenhain and Ries 1988].

We should think about our lifestyle, about the importance of physical training, relaxation and about protecting our body, that have to serve us for the rest of the life. However, what about the hygiene - not only the physical part of it is important, for our health psychological hygiene is important, too. It is known that many of the civilisation diseases are of psychological origin or can be influenced by it. Today we know that civilisation diseases are responsible for increasing of morbidity and mortality especially among young adults. While in the past infectious diseases were the most common reason for death, in the present cardiovascular diseases and oncological diseases represent the greatest danger for our population. The reason for this increasing trend is probably unhealthy lifestyle, lack of information and lack of prevention among patients, alcohol and tobacco abuse and last but not least lack of exercise [Čornaničová 1998; Ďuriš at al. 2001; Hulin at al. 1998; Kalvach 1995; Zdravie 1999].

As it was written, high occurrence of civilisation diseases in our population has its consequences not only among patients but in the whole society, too. Civilisation diseases are chronic and they make the quality of patients life to be worse. It can not be forgotten that this kind of diseases means also great social problem. Civilistaion diseases are the reason for many temporary and permanent disabilities. However, at the time when some signs of civilisation disease appear probably it is too late to solve the problem - prevention is on the first place. At that time one or more organs and organ systems could be affected.
According to the fact which organ system is affected, we can divide civilisation diseases into these groups: cardiovascular diseases, oncological diseases, respiratory diseases, diseases of bones, joints and muscles, infectious diseases, others [Fűsgen 1996; Haškovcová 1991; Hulin et al. 1998; Husarovičová and Husarovičová 2006; Husarovičová and Poláková 2008; Kannel at al. 1974; Topinková and Neuwirth 1995]. While cardiovascular and oncological diseases are often the reason for the death of the patient, the others are mostly the reason for the permanent disability. Today on the first place there are cardiovascular diseases, but it is completely different situation to the year 1900. At that time infections and malnutrition were most common reason for death, especially when appearing in epidemy.

Civilisation diseases play a crucial role in today’s hectic period, full of traps and surprises. They have a significant influence on the health state of the population. They are a serious world-wide problem (Table 1).

| F | Medium life expectancy |
| G | Main death causes     |
| H | Cardiovascular diseases |
| I | Tumoral diseases      |
| J | Other diseases        |
| K | External death causes and accidents |
| L | Mental health         |
| M | Contagious diseases   |

Table 1. Significant factors determining the health state of the population

Health is a factor determining health state. Besides the classical definition of health according to the WHO, there exist several other definitions, some of them static, some dynamic.
At least two of them are stated here: 1. Health is a complex of human abilities to deal with the demands of external and internal environment, without impairing of the life functions. 2. Health is a form of life in which the organism reaches optimal morphological and functional presumptions for its existence which is obvious in cooperation among processes taking place in the organism, as well as during its interaction with environment [Zdravie 1999].

In Table 1 it is shown that cardiovascular diseases are the primary reason of morbidity and mortality, therefore they are going to be the main topic of our publication.

Coronary (atherosclerotic) disease is the most frequent mortality cause in industrially developed countries. Men are more often afflicted than women, with the ratio of 4:1, however at the age up to 40 this ratio is 8:1, an at the age of 70 it is 1:1. The most frequent occurrence of clinical manifestation is 50-60 years by men, and 60-70 years by women. In epidemiological studies there were significant risk factors of premature occurrence of coronary diseases identified (Table 3, 4, 5 and 6). Chronical infection is included among risk factors. The most significant risk factors are: hyperlipidemia, smoking, hypertension and diabetes mellitus [Bertram and Hanson 2001; Coughlin at al. 1994; Gressner 1978; Hegyi at al. 2000; Hrnčiar at al. 2000; Hulin 1996; King at al. 1998; Novotný at al. 2007; Zdravie 1999].

More than 300 risk factors have been discovered up to now. These, however, are not so tightly connected with the occurrence of coronary disease at a higher age. Monocytes and the derived macrophages containing cholesterol and fatty acids play an important role. Macrophages migrating to the subendothelial space contain fats and create foamy cells. Some atherosclerotic plaques are stable, others are unstable (they burst) and contribute to the inception of thrombosis. Current studies revealed the revival of an older theory, according to which atherosclerosis may be a result of an inflammatory process in the vassal wall, initiated or worsened by an infectious agent. High level of CRP (hs-CRP), a non-specific inflammatory marker is connected with a frequent occurrence of ischemic incidents. There are different infectious agents – Chlamydia pneumonia, Cytomegalovirus (CMV) and Helicobacter pylori, which are indirectly considered. Twenty % of patients with acute I.M. die before their hospitalisation. There are equal risk factors cardiovascular diseases by men and women, some
of them are however more relevant by women than by men. Some others are unique by women, with an exception of diabetes mellitus which is absolutely riskier by men.

Women in higher age, colored (black) population, and persons with lower socio-economic status represent a higher risk. Diabetes mellitus seems to be riskier for women, who have to be intensively observed (fats, reduced HDL-cholesterol, hypertension and abdominal obesity).

Similarly, also women with premature climacterium, demand estrogen prophylaxis to prevent higher occurrence of cardiovascular complications. It is important to monitor the main risk factors in primary and secondary prevention. Atherosclerotic cardiovascular diseases are a diffuse process affecting the heart, brain and periferal vessels. The presence of one of the clinical manifestation significantly increases the risk of development of another. LDL-cholesterol decrease and HDL-cholesterol increase slow down the progress of atherosclerosis.

Primary prevention, decreasing of LCD-cholesterol and increasing of HDL-cholesterol improve the benefit also by persons with average lipid levels. It is important to treat hypertension at a higher age too, as the prevention of NCMP, coronary heart disease and heart insufficiency. Hyperlipaemia and hypertension can be prevented by correction of diabetes mellitus [Baštecký at al. 1994; Řuriš at al. 2001; Fűsgen 1996; Hulin 1998; Pacovský 1994].

Cardiovascular diseases

Cardiovascular diseases represent worldwide more than 10 % of the total number of mortalities also at the end of 20. century (as well as at the break of the millenniums). They represent more than a half of all mortalities in industrially developed countries, and 25% in developing countries. In 2020, 25 million of people will die from cardiovascular diseases whereby heart diseases will be in the first place of mortality and morbidity rate, much ahead of contagious diseases. This increase of cardiovascular diseases results from the dramatic shift in the state of individual health worldwide also at the break of the millenniums. Lasting shift of dominant profile and distribution of diseases- cardiovascular and oncologic diseases, is equally dominant. Contageous diseases and malnutrition were the main death causes in the year 1900. However, thanks to the changed life style, nutrition, and other risk factors, these were replaced by cardiovascular and oncologic diseases as the main cause of morbidity and mortality. This is the reason why cardiovascular diseases will dominate as the main mortality cause in the year 2020, when every third death will be a result of cardiovascular disease. The
morbidity and mortality shift is caused by the “lion’s share”, known as an epidemiological shift. The above mentioned epidemiological shift is never isolated and is tightly connected with personal and communal changes (personal and communal well-being) – economic shift, demographic and social structure changes. Since the economic shift is connected with evolution and social and economic force, it is performed at a different speed in different parts of the world. Although there are changes of health state of the inhabitants in each part of the world, at the beginning of the third millennium the national health and disease profile broadly varies according to the country and region. For example, the average life expectancy in Japan is 80 years, which is twice as high as in Sierra Leone, where it is only 37.5 years [Ďuriš at al. 2001; Hulin 1998; Novotný 2007; Zdravie 1999].

In 2020, a population increase is expected to reach the number of 7.8 billion; the highest one is expected mainly in the developing countries. Population increase in the developed countries will only be by 13 %, from 798 million in 1990 to 905 million, though mainly as a result of immigration, and the similar situation is expected in so called “socialistic states”, which is a reduced decrease in their own population, and population increase from 346 to 365 million.

On the other hand, in the developing countries (the third world countries), the population will considerably increase by more than 60 %, from 4.1 billion in 1990 to 6.6 billion in 2020 and will represent 84 % of the world’s population. From the total number 54.8 million mortalities in 2020, 25 million will die of cardiovascular diseases, which makes 36.3 %. Whereas the number of community disease mortalities will show a sinking tendency from 32.2 % to 15.1 %, an increasing trend is expected in cardiovascular diseases. Cardiovascular diseases will always have a multifactorial character !!! (Table 5 and 6).

To decrease cardiovascular mortality and morbidity, 3 additional strategies will be necessary: 1. Enlarging and widening of public health sector (detection, medical care training, preventive interventions…). 2. Identification of risk factors. 3. Allocation of sources aimed at acute and chronical disease therapy, focused mainly on secondary prevention.

All these strategic techniques are to be enlarged equally as for both prevention and therapy for the whole population, regardless their race, ethnic and socio-economic group [Čornaničová 1998; Hegyi at al. 2000; Husarovičová and Husarovičová 2006; Husarovičová and Poláková 2008; Pickenhain and Ries 1988; Topinková and Neuwirth 1995; Zdravie 1999].
Main groups of myocardial ischaemia risk factors

a) Genetic demographic, somatic and character factors (ICHs occurrence in the family, age, sex, race and similar factors).

b) Characteristics found by physical and auxiliary examination (hypertension, obesity, abnormal ECG et cetera).

c) Factors connected with biochemical changes (increased cholesterol and triacylglyceride levels, some enzymatic changes (hypermonocystosis)).

d) Thrombocyte and haemocoagulation disorders.

e) Factors of lifestyle, habits and psychosocial influences (smoking, lack of exercise, mental stress, etc).

f) Factors reflecting environmental influences (noise, drinkable water composition).

g) Signs reflecting an overall state of the organism (anginous pains, state of the bloodstream and others).

h) Factors marking an excessive diet, energy intake, cholesterol content in food, etc.

i) Factors showing the lack of some food components (insufficient intake of fibre, fruit, vegetables).

j) Ingestion of some medicaments (e.g. hormonal contraceptives etc.).

Artheriosclerosis

There is a group of diseases where the loss of elasticity occurs, which is accompanied by hardening and thickening of arterial walls (scleros = hard). The group includes the following: atherosclerosis, Monckeberg's sclerosis and arteriosclerosis. It is necessary to stress that the term arteriosclerosis is often misinterpreted as a synonym of atherosclerosis.

Atherosclerosis is the most common form of arteriosclerosis!!! Complications of atherosclerosis are the major cause of premature morbidity and mortality in the developing countries. Slovakia belongs to the countries with the highest mortality rate. Atherosclerosis is a variable combination of artery intima changes, created by focal lipid
accumulation, blood and blood products, connecting tissue, and calcium deposits, connected with the changes in the medium of arteries.

There is a high number of risk factors of atherosclerosis (as many as 300 have been detected and suspected); dyslipoproteinemia, hypertension and diabetes mellitus are considered to be the most significant [Baštecký at al. 1994; Řuriš at al. 2001; Fűsgen 1996; Kalvach at al. 1995; Pacovský 1994].

Atherosclerosis is a complex pathological process including accumulation of lipoproteins, their further modification increased peroxidase stress and inflammatory, angiogenetic and fibroliferative responses mixed with extracellular matrix and lipid accumulation, resulting in the creation of atherosclerotic plaque. Endothelium dysfunction is typical for atherosclerosis and is often manifested as a reduced vasodilatory and exaggerated vasoconstricting phenotype, which contributes to the reduction of arterial wall translucency. Thrombosis, which is a result of the plaque rupture or its surface erosion, makes the disease more complicated, and often leads to a sudden occlusive lumen of the artery, followed by acute ischemic syndromes. Infectious agent can contribute to the inflammatory response, and thus lead to destabilization of lesions. Only detailed and comprehensive understanding of pathophysiology of atherosclerosis will offer new trends in prevention and therapy of this complex multifactorial disease.

Clinical manifestation of atherosclerosis – three types (stages):

1. type of damage – endothelium dysfunction. Functional alternation of endothelium, without significant morphological changes. It causes an abnormal vasomotoric tonus and increased lipid and monocyte permeability.

2. type of damage – denudation of endothelium with a damage to the intima (without lamina elastica and media lesion). Toxic agents from the accumulated macrophages release growth factors supporting fibromusculatory response.

3. type of damage – is represented by denudation of endothelium with a damage to the intima and media. Fisuration of atherosclerotic plaque with the resulting intraluminary obstructive thrombosis is usually initiated, which is manifested by acute arterial syndromes.
In the 20th century a significant development of understanding of pathophysiology and atherosclerotic process was reached. This disease has a long and grim history, with the traces found by Egyptian mummies (Eber’s papyrus). Similarly, in the ancient antique times, atherosclerosis was considered to be a serious epidemiological problem. As a result of decrease of infectious diseases, the life expectancy was prolonged, and eating habits and lifestyle were changed.

Atherosclerosis also shows time heterogeneity both in the chronic and acute manifestation.

Lot of other diseases have a longer incubation period compared to atherosclerosis, which begins to affect people in the second or third decade of their lives. As a contrary to this time diapause and a prolonged period of clinical inactivity, atherosclerotic complications such as acute heart attack, unstable angina pectoris, sudden cerebral accident etc come unexpectedly and often end up in a sudden death.

The development of atherogenesis, causing stenosis of some of vessels whereas ectasia of others is similarly unclear. Stenosis is a feared cause by coronary vessels, while aneurysm is a common cause of other vessels, including the aorta.

Understanding of the pathogenesis of atherosclerosis primarily demands knowledge of the structure and biology of a normal vessel wall. Healthy vessels have a well developed trilaminar structure, from which the most important is the innermost layer, intima – endothelium, which is very complex and heterogeneous. Endothelium cells of the vessel intima play the crucial role, which is a contact with blood. Only endothelium cells have numerous highly specialized functions, most important for the vessel homeostasis that becomes damaged in the pathogenesis of arterial diseases. Only endothelium cells form a unique and exquisite surface, either natural or artificial, which is able to keep blood in liquid state at a prolonged contact. Atherosclerosis has multifactorial causes (Table 5 and 6) [Coughlin at al. 1994; Řuriš at al. 2001; Füsgen 1996; Hulin at al. 1998; Husarovičová and Husarovičová 2006; Husarovičová and Poláková 2008; Pacovský 1994].
Vascular endothelium

The inner parts of the vascular system are covered with a layer of endothelium cells. In the ontogenetic development, endothelium is the foremost part of the vascular system. It shows a high metabolic activity, it takes part in vascular reactivity, and influences activity of the cells circulating in blood, as a part of thrombogenesis. Luminal surface of endothelium represents the area of 500 – 1000 square metres. Endothelium is the largest endocrinal organ in the human body (1500 g). Under physiological conditions, endothelium cells consist of several metabolic and secretory systems. The principal importance of endothelium cells is by short and long term control of vasculatory functions, which is the reason why endothelium dysfunction is a basis for many cardiovascular defects and disorders (Table 2).

Dysfunction and importance of endothelium

LDL - cholesterol is the most significant factor participating in the endothelium dysfunction. After being modified by processes such as oxidation, glycogenesis, aggregation, connection with proteoglycids, immune process incorporation, LCD - cholesterol is able to cause dysfunction of endothelium. Subendothelial retention of LCD particles leads to progressive oxidation followed by internalization by macrophages with the help of scavenger receptors. Internalization results in creation of lipid peroxides, and increases accumulation of cholesterol esters, which causes creation of foamy cells. The level of LDL modification varies a great deal. However, immediately after being modified and absorbed by LDL macrophages, LDL-cholesterol activates foamy cells which are mostly damaged. Besides, modified LDL-cholesterol has also a chemotactical effect on other monocytes, and can regulate expression of genes for MCSF (macrophage colony stimulating factor) and chemotactical monocyte protein, originating from the endothelium cells. In this way it contributes to the expansion of the inflammatory response by stimulation of the monocyte replication, from which macrophages are derived, and introduction of new monocytes into lesions. Oxygenated LDL-cholesterol is found in atherogenetic lesions by humans and animals. The following inflammatory process stimulates migration and proliferation of the smooth muscle cells to the inflammed area, where fibroproliferative lesions causing thickening of the arterial wall are created. This process can be reduced by vitamin E supplementation, whereas B – carotene does not have a
similar effect. Progressive plaque accumulation to the vassal wall can cause progressive thickening of the whole vessel – partly by expansion of adventitia (positive remodeling), which minimalizes narrowing of the lumen, or remodeling failure, which constricts the vassal lumen by the gradual plaque growth, causing constriction or contraction of adventitia and narrowing of the lumen (negative remodeling).

Inflammatory and immune response in atherosclerosis consists of monocyte accumulation, from which macrophages are derived, specific subtypes of T-lymphocytes in any disease stadium. Lipid stripes, the earliest type of lesion which are found by newborns and infants, contain monocytes deriving macrophages, and T-lymphocytes. Gradual inflammation increases the number of macrophages and T-lymphocytes, both of them migrating from blood and multiplicated in the lesion. Activation of these cells results in release of proteolytical enzymes cytokines and chemokins and growth factors which lead to the further destruction, even to the focal necrosis. Necrosis and/or apoptosis leads to the creation of the lipid nucleus necrosis in the plaque, further to restructurization and enlargement of the lesion, which is covered by a fibrous cap that covers the adipose nucleus and necrotic tissue, creating a complicated plaque. Circulus vitosus is created in this way. Macrophages, derivated from monocytes, are presented in different stages of atherogenesis and act as scavenger receptors and antigen producing cells. They produce cytokins, chemokins, growth regulating molecules, metaloproteinasis and hydrolytic enzymes.

- Dislipidemy and atherogenic modification of lipoproteins
- Elevation of LDL, VLDL, lipoprotein
- LDL modification (oxidation, glycation)
- Increased oxidation stress: (Hypertension, Diabetes mellitus, Smoking)
- Estrogen insufficiency
- Hyperhomocysteinemy
- Higher age
- Genetic predisposition
- Infections

Table 2. Factors, contributing to the endothelium dysfunction

<table>
<thead>
<tr>
<th>1. Category (proved decrease of the risk of cardiovascular diseases, intervention, therapy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>✗ Smoking</td>
</tr>
<tr>
<td>✗ LDL – cholesterol</td>
</tr>
<tr>
<td>✗ High level of fats and cholesterol in diet</td>
</tr>
<tr>
<td>✗ Hypertension</td>
</tr>
<tr>
<td>✗ Hypertrophy of the left heart ventricle</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Category (presumably decreased risk of cardiovascular diseases, intervention – therapy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Diabetes mellitus</td>
</tr>
<tr>
<td>• Physical inactivity</td>
</tr>
<tr>
<td>• HDL- cholesterol</td>
</tr>
<tr>
<td>• Triglycerids, VLDL- cholesterol</td>
</tr>
<tr>
<td>• Obesity</td>
</tr>
<tr>
<td>• Climacterium</td>
</tr>
</tbody>
</table>
3. Category (modification of the risk factors can decrease the risk of cardiovascular diseases)

<table>
<thead>
<tr>
<th>23. Psychosocial factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>24. Lipoprotein</td>
</tr>
<tr>
<td>25. Homocystein</td>
</tr>
<tr>
<td>26. Oxidation stress</td>
</tr>
<tr>
<td>27. Alcohol abstinence</td>
</tr>
</tbody>
</table>

4. Category (Factors of a higher risk of cardiovascular disease that cannot be influenced)

<table>
<thead>
<tr>
<th>61. Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>62. Sex – male</td>
</tr>
<tr>
<td>63. Low social and economic standards</td>
</tr>
<tr>
<td>64. Family occurrence – in young age</td>
</tr>
</tbody>
</table>

Table 3. Relations of the risk factors of cardiovascular diseases, the importance of their measurement, intervention response

1. Category

- Basic research (significant results)
- Clinical research (significant success)
- Intervention (successful)

2. Category

- Basic research (significant results)
- Clinical research (causative connections)
- Intervention (limited)
- Lack of adequate interventions (mainly financial limits)
3. Category

83. Basic research

84. Clinical research (further observations necessary, results so far unavailable, or inadequate)

85. Intervention (so far unavailable)

Table 4. Classification of the studies and possibilities to limit or modify the risk factors of cardiovascular diseases

<table>
<thead>
<tr>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family occurrence</td>
<td>Type of personality</td>
</tr>
<tr>
<td>Age</td>
<td>Ethnic origin</td>
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<tr>
<td>Sex</td>
<td>Alcohol</td>
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<tr>
<td>Smoking</td>
<td>Trace element deficiency</td>
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<tr>
<td>Hypertension</td>
<td>Magnesium deficiency</td>
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<tr>
<td>Diabetes mellitus</td>
<td>Coagulation factors</td>
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<tr>
<td>Obesity</td>
<td>Insufficient fibrinolysis</td>
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<tr>
<td>Insulin resistance</td>
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<tr>
<td>Physical inactivity</td>
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</tbody>
</table>

Table 5. Risk factors of atherosclerosis

A. Exogenous (Non-influenceable factors)

- Age
- Sex - male
- female after climacterium
  - genetic load (positive family anamnesis)

### B. Exogenous (influenceable) factors

<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>1.</td>
<td>Dislipoproteinemia</td>
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<td>2.</td>
<td>Hypertension</td>
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<tr>
<td>3.</td>
<td>Smoking</td>
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<td>4.</td>
<td>Diabetes mellitus</td>
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<td>5.</td>
<td>Insulin resistency</td>
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<td>6.</td>
<td>Obesity</td>
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<td>7.</td>
<td>Physical inactivity</td>
</tr>
<tr>
<td>8.</td>
<td>Personality type (A)</td>
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<tr>
<td>9.</td>
<td>Alcohol</td>
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<tr>
<td>10.</td>
<td>Trace element insufficiency</td>
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<tr>
<td>11.</td>
<td>Hyperuricemy</td>
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<tr>
<td>12.</td>
<td>Haemocolagulation (increased)</td>
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<tr>
<td>13.</td>
<td>Fibrinolysis (decreased)</td>
</tr>
<tr>
<td>14.</td>
<td>Magnesium (deficiency)</td>
</tr>
</tbody>
</table>

Table 6. Endogenous and exogenous risk factors of atherosclerosis

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**Nursing and cardiovascular diseases**

Function of nursing in prevention, therapy and dispensarization of cardiovascular diseases. Nursing is a scientific branch which integrates knowledge of other branches dealing with study of man, society and environment. The characteristic feature of nursing is a complex approach towards an individual by preserving and supporting health, by prevention and care of the sick. The aim of nursing is to help a human being, family, group, community, and carry out those activities which in health or disease contribute to health, cure, or peaceful and dignified dying and death, that could have been done by the patient himself if he had the necessary strength, will, or knowledge. Another aim of nursing is to help the patient to maintain independency as soon as possible. Among the main tasks of nursing are:

a. To preserve and support an optimal state of an individual, family, group, and community in different situations.
b. To gain an active interest of an individual and his family in the process of the health support, maintenance and treatment, as well as to support the family togetherness.

c. To monitor nursing demands of an individual.

d. To provide primary, secondary and aftercare.

e. To harness scientifically justified working methods and techniques by qualified specialists in nursing.

Nursing is a significant and irreplaceable phenomenon also in prevention, therapy, and dispensarization of cardiovascular diseases.

Nursing plays a key and unique role in all levels of therapy, prevention and dispensarization of cardiovascular diseases [Husarovičová and Husarovičová 2006; Husarovičová and Poláková 2008; Novotný at al. 2007; Topinková and Neuwjirth 1995].

Conclusion

Prevention of cardiovascular diseases – development of cardiology

- Elaboration of new, more sensitive diagnostic methods, improvement of diagnostics, mainly new non-invasive methods (ECHOKG, isotope methods, NMR…)

- Synthesis of new, more effective pharmacotherapeutical substances on molecular level (Antihypertonics, antiarrythmic drugs, diuretics, cardiotonics etc…)

- Broader application of preventive methods in the fight against cardiovascular diseases:
  - risk factors,
  - primary, secondary and tertiary prevention – lifelong prevention from the cradle to the grave,
- healthcare education of all inhabitants, since health should be the matter of each individual, not only of the health care institutions (Table 3 and 4).

Prevention of atherosclerosis

**Primary prevention** of atherosclerosis consists of at least two parts:

**Global population strategy** should lead to changes of lifestyles and changes of all social and economic determinants of the environment, *angioepidemiology of 21st century*. Global population strategy has major importance in primary prevention. It is inevitable to change the thinking of physicians, and thinking of the whole society too. **Only 20%** of the overall success of primare preventive measures is created by the health care system, **80%** is created by activities of non-medical parts of the society [Čornaničová 1998; Haškovcová 1991; Husarovičová and Husarovičová 2006; Husarovičová and Poláková 2008; Zdravie 1999].

**Individual risk strategy** is a preventive care aimed at persons threatened by atherosclerosis which tends to the decrease or elimination of the risk factors. Its share in the control of atherosclerosis is of the **foremost importance** for an individual!

Prevention and therapy of the risk factors are to be complex and lifelong by the consequent monitoring.

**Secondary prevention** of atherosclerosis should begin at the time of manifestation of the disease. The aim of early and adequate therapy is to manage the development of the pathologic process, to cease it when it still is in a reversible stage, to prevent complications, and permanent consequences, disability and premature death. It is necessary to stress that a **physician** is the most effective agent in secondary prevention. Complex therapy (risk factors, pharmacotherapy etc) is also important.

**Tertiary prevention** of atherosclerosis is therapeutical rehabilitation, comprising a complex of arrangements with an aim to maintain an optimal somatic, mental, and social state for an individual, enabling him to reach an adequate society status also in the tertiary stage of the disease with complications. Complex therapeutic
rehabilitation has to be a part of secondary and primary prevention of atherosclerosis. Prevention and treatment should be complex, and not alternative. One constituent cannot be replaced by another one!!!

Acknowledgement

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The problems of young people addicted to drugs and their social rehabilitation at the international level

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Abstract

We have observed if the prisoners were drug abusers, relationship between age and crime, the criminal history of prisoners, type of drug used by them, the way how they received drugs and the motivation for drug abuse. Our group of respondents consisted of 95 young prisoners. The questionnaire was used to collect informations. Informations were statistically analysed by XLSTAT programme, 7.1 version and SPSS programme, 14.0 version. Drug abuse has a high correlation in prisoners. Most of young prisoners were drug abusers before prison. What about prevention we suggest the cooperation between nursing – public health – social work. It is also important to cooperate with the government, media, hospitals, educational institutions, religion, justice, police and to create a complex network for prevention based on international cooperation.

Key words: pubescents – adolescents – drugs – prevention – resocialisation

Introduction

Drug abuse is as old as the humanity. They were used in history too. People knew the effect of these substances also in ancient times. But the outcome of drug abuse are devastating, the results are destroyed families, relationships and very deep depressions [Heller at al. 1996;
Nowadays drug abuse is the global health and social problem. Many drug abusers are pubescents and adolescents. Most of them are between 12 to 18 years of age. This age is generally considered to be the most vulnerable and critical period of the life. Prevention plays very important role in this period of drug abuse. Drug abuse became more important after the year 1989 and our society was not prepared for this. Slovakia nowadays plays not only the role of transfer country, but it’s own drug market. In the past alcohol was the most used drug, but today especially heroin is consumed. The number of people using drugs is growing rapidly. We have to focus our attention on risk groups and drug market. Because there exists an international drug market, we must also create an international cooperation concerned on prevention [Presl 1995; Stančiak et al. 2009; http://www.who.sk/data/health.21.html].

**Drug abuse and pubescents and adolescents**

Young people between 12 and 18 years of age are the most risk group. This is the most vulnerable phase of human life with typical changes in physical and psychological period. In this period of life appear great changes in:

65. physical picture,
66. social picture,
67. separation from parents,
68. new responsibilities,
69. uncertainty,
70. creating its own values.

The conflict often happens between child under the control of parents and a young human with its own responsibilities. In this period not only physical but psychological changes happen, and what is typical is to find a new job, creating the family and new social relationships. Drug can be a way how to create new relationships, how to find new social contacts, but the effect of drug abuse is devastating not only own health, changes of the body and also psychological events. Experiment, curiosity, finding of new values could be the mechanism how drugs become a part of the human life.
The aim of the study was to find:

28. if the prisoners were drug abusers,
29. the relationship between the age and the crime,
30. if the prisoners have some crime history,
31. if the prisoners were drug abusers before prison,
32. the spectrum of drugs,
33. the source of drug and the community where the abuser got the drugs,
34. the motivation for drug abuse.

**Material and method**

Characterisation of the respondents. The research was done in the prison for pubescents and adolescents in Sučany, Slovak republic. We included 95 respondents. In the research we used questionnaire method. The study was done with the agreement of General directory of the ministry of inner affairs. The questionnaire was anonymous. We have done the research between January and September 2009 after the agreement with the study. The statistical analysis of collected data was made by the programme XLSTAT 7.1 version and SPSS 14.0 version.

**Results**

Respondents were divided into three groups according to age. To the group between 18 and 20 years of age consisted of 69 respondents. Two respondents were the group of 21-25 years of age and 24 respondents were under 18 years of age (Figure 1).

![Figure 1. Respondents according to the age](image-url)
67 respondents had primary school, 21 respondents had secondary school without graduation and 5 respondents had secondary school with graduation. One respondent studied at the university and one did not specify the type of education (Figure 2).

![Figure 2. Education of the respondents – prisoners](image)

76 respondents were students or unemployed, only 19 respondents were economically active. On behalf of this we can supposed that the risk groups are especially people unemployed and students (Figure 3).

![Figure 3. Economic activities of the respondents – prisoners](image)
63 respondents were drug abusers before prison, 31 respondents refused drug abuse and one respondent did not answer this question (Figure 4).

![Figure 4. Drug abuse before entering the prison](image)

33 respondents had the first contact with drugs before 15 years of age, 19 respondents before 17 years of age and 11 respondents before 20 years of age. The motivation was curiosity in 33 respondents, to 14 respondents the drug was given by friends, 12 respondents tried to solve to problems in their personal life using the drug. Tediumness was the reason for taking drug by 8 respondents, 6 respondents wanted to try something new and 5 respondents did not specify the problems leading to drug intake.

63 people had an experience with drug before prison. More then 30 respondents were using more types of drugs. Marihuana was the most common drug, also in the combination with alcohol or other drugs. 9 people were using pervitin. Some of them were using natural narcotics and hallucinogens.

72 people did not have crime history, only 23 were repeatedly in the prison (Figure 5).
68 respondents were prisoned because of intended crime, which shows the aggressivity of drug abusers (Figure 6).

**Discussion and conclusion**

According to our research in the prison Sučany for young criminals we assume that drug abuse highly correlates with criminal activity of drug abusers. The research was done by a questionnaire form in the group of 95 young prisoners. The results show the young prisoners were regularly consuming narcotics in the past. The national report for EMCDDA (European Commission on Drugs and Drug Addiction) highlights the importance of addressing drug abuse in prison settings. The findings underscore the necessity for targeted interventions to mitigate the cycle of drug use and crime.

The first contact with the drug is less common in higher age – 30% of drug abusers were under 17 years of age. The motivation for taking drugs was curiosity and drug intake of friends. However, drug addiction influences many areas of life, it can not be solved isolated, but the cooperation of many institutions are useful. Coordination should be done by nursing – public health – social work. As Novotný expressed, basic things in prevention is the influence of social factors (school, friends, peers). If many factors work together, prevention can be successful. The Programme School without alcohol, drugs and cigarettes is one of the programmes from primary prevention [Novotný 1996]. However, society, government, parliament, local governments, hospitals, healing centres, educational institutions, psychological ambulances, social institutions, non governmental institutions, police, army and courts should be included in the prevention programmes. Prevention, even if it is expensive plays an important role in drug abuse. Okruhlica noted, the life without the drug brings many frustrations that can lead to relapse of drug addiction. Creating new contacts and friendships can be difficult because of patients drug history. New activities without drug are difficult for a patient [Stančiak at al. 2009].

However, there are many international programmes based on international cooperation. They are coordinated by governmental institutions such as hospitals, healing centres on one side, and on the other side there are non governmental institutions which organize these programmes. It is important to harmonize all the parts of the programme and lead them to cooperation. The success is a combination of personal abilities of a drug abuser to defeat the addiction and of the abilities to make a new life style without the drug in the new community.

Prevention is a medical term, mostly it means to identify risk factors as soon as possible, to understand them and solve them. Prevention consist of factors to protect the health [Bergeret 1995; Hupková 1998; Hupková (in press); Nešpor 2001; Nešpor 2007; Stančiak at al. 2009;
Prevention of drug abuse is based on informations given to young people about narcotics, ways of applications and its effects on organism. It is also important to cooperate with the government, media, hospitals, educational institutions, religion, justice, police and to create a complex network for prevention based on international cooperation.

Primary prevention is focused on delaying or better to prohibit the contact with the drugs. It covers the whole population. The aim of primary prevention is to decrease demand after the drugs, to stop their distribution and usage. So the potential consuments will become no consumers at all. Prevention can be focused on the whole population (using e.g. media to inform and educate), on the communities, on the risk groups in the population (street children, children of the drug abusers etc.) Prevention supports antidrug activities, prosocial behaviour and promote individuals and community to accept antidrug statement. Specific antidrug prevention is concentrated on specific form of human behaviour, that is risky for drug abuse. Specific antidrug prevention is focussed on:

86. specific target groups, and is looking for the way how to prevent this specific form of behaviour e.g. drug abuse, or to move the risk behaviour into the elderly groups,

87. some handicapped groups or more vulnerable groups in the population (from the specific point of view according to the phenomenon we want to prevent).

Secondary prevention is concerned on selection the problem that already exists and is focused on this solution. The main target is to help when the abuse exists. A system of professional help was created for drug abusers. It consist of different types of help, which depends on specific indicators: e.g. the length of dependence, the motivation of the abuser, cooperation of the abuser, social status of the patient, psychological defect etc. The therapy of drug abuser means also for the patient a strong and difficult physical and psychological stress. By drug abuse the problem did not start with the first dose of narcotic, it begun a long time before. So the treatment will take a long period, too and it will be financially difficult [Komárik and Podhradský 1990; Masár and Drobná 2001; Presl 1995; Podhradský and Komárik 1990; Stančiak at al. 2009].

Tertial prevention is focused on the prevention of relapses. It helps to prevent outcomes caused by drug abuse. It means practically to built a new life without drugs.
In „harm reduction programme“ we include people, who don’t accept drug abuse as a problem and they don’t have need for treatment. These people are not outsiders, many of them are educated and they live in the community, but they are no able to accept drug abuse as a problem. For these abusers programme helps e.g. change of the syringes and needles. However, it doesn’t mean that the programme supports drug abuse. People who depend on drug need the dose and doesn’t care for sterility and safety. Among them a risk for severe infection such as hepatitis and HIV/AIDS is very high. Especially intravenous abusers are at high risk. More important then the possibility for changing the needles and syringes is the selection of these group of abusers and explanation of the activities that are done. The teams of street workers operate in large cities. They visit the places where drug abusers concentrate, they inform them about all the risks by drug abuse, they support abusers with sterile syringes and needles. However, many times the contact with the street workers is the first step for abuser to the recovery process.

This type of prevention includes also the substitution programme. The aim of substitution programme is to change illegal, often chemically not very clean narcotic for the clean one given in the centre specialized for it. Unfortunately this is possible only for opiate abusers, when methadone, a synthetic substance is given to the patient. The substitution is not successful on the beginning of drug abuse and by the combination of two or more drugs.

Resocialisation is the process that must be complex, well coordinated, continues, systematic and specific for every healed patient. It is orientated on the complete lifestyle changing through the changes in the thinking of the patient. On behalf our results we can certainly support that drug abuse is very complex problem, is worldwide, global, and for this reason are necessary not only local programs but reasonable international cooperation. There are many international programmes for drug abusers. These programmes are organized by governmental institutions such as hospitals and specialized healing centres for abuses on one side, on the other side there are non-governmental institutions. Street workers are a part of non governmental programmes and their work is not oriented only on the changing of material, they are more interested in communication with drug abusers and their motivation. The process of healing reduces the stay in the community where drugs are abused. In the hospitals or healing centres therapy includes not only pharmacotherapy, but psychotherapy, ergotherapy, arttherapy etc.
There is an intensive international cooperation between all these organisations. They discuss all the methods and help to implement some knowledges into each others systems. The project Cenacolo is a good example how the international cooperation works. All the branches use original programme created in the first centre in Italy and communicate between each other. Cenacolo community was created in July 1983 by sister Elvira Petrozzi. The centre is in Italy, Saluzzi. Nowadays there are more then 50 „houses“ not only in Italy, but in the whole world – France, Croatia, Bosnia, Austria, Slovakia, Poland, Ireland, Russia, United Kingdom, Slovenia, U.S.A., Brasil, Peru, Mexico. It has more than 1600 members [http://www.cenacolo.sk/index.php].

The community is based on three basic ideas – prayer, work and friendship. To stay in the community is difficult, because of the rules that must be accepted. Patients who came to the community with the idea to start a new life will be successful. Young people who have their own experience with narcotics belong to the team of the social workers. Their help is very important, because of their own experience, they understand all the problems of the patients.

To defeat the drug addiction is extremely difficult and only few patient can deal with the addiction alone. Number of abusers is rapidly growing and there are many variations of drug abuse.

We can not compare the treatment in hospitals and healing centres with activities of non governmental institutions. We assume, therapy in the communities is a perspective form of treatment, although it takes more time, but more effective and cheaper than hospital treatment. Individual form of treatment and complexity makes it more effective, because the patient is not „lost“ in small community and must cooperate with other partners in the group. It makes him to be responsible not only for himself, but for the whole group and is in contact with the world outside. These are the most important factors in the healing process and in psychiatric clinics it is hard to achieve that situation.

Because the drug addiction is a worldwide problem it needs a worldwide cooperation what about treatment.

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http://www.cenacolo.sk/index.php


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THE ROLE OF NURSE IN CONTACT WITH THE PATIENT WITH LYMPHEDEMA

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Abstract

Lymphedema is judged as the lifetime disease with progression tendency. Every year the number of diagnosed cases of primary and secondary lymphedema increases. Every day a nurse in her professional practice comes across a suffering man, his or her pain and very often hopelessness. At the same time she is expected to offer more human understanding and emphatic attitude as well as adequate information about the patient’s health. The role of modern nursing is to offer to such a patient nursing care of high quality focused on a patient as the holistic unit.

KeyWords: Nurse- Lymphedema- Patient

Introduction

At present nursing is progressing and changing all the time and there for eit requires a nurse whose main aim is to help individuals or groups acquire, maintain or return health, respectively to die with dignity (Hrašnova et al. 2007). In the past as well as now a days a nurse with her professional influence does not represent only one but more roles. These roles are influenced by several factors, e.g. changes in the society, system of health care, new knowledge and technologies and the entire condition of inhabitants. The roles of a nurse are characterized mainly by the fact that a nurse’s work proceeds from the needs and understanding of patient’s problems; she is able to give a patient the feeling of security, she is emotionally neutral and she is always able to subordinate her emotionality to the rational control (Albert et al. 2009). The attitude of the patient to his or her disease depends also on the knowledge which he or she gets mainly from the contact with nursing personnel. The role of a nurse in contact with a patient is irreplaceable; she applies mainly the role of a nurse, communicator, educator, teacher, lawyer, mentor, manager, carrier of changes, advisor, leader

The nurse researcher knows the research process and its terminology, she tries to bridge the abyss between research and practice. She finds out by suitable methods different information from respondents about his or her disease, attitudes and knowledge. When composing a research/investigation project she goes through these phases (Husarovičová et al. 2006; Husarovičová et Husarovičová 2006; Husarovičová et Husarovičová 2010; Husarovičová et Poláková 2008; Husarovičová et al. 2006; Zákon č.574 2004).

71. Conceptual phase – it formulates and defines a problem which will be the subject of research or investigation, it maps the most current accessible literature, it defines the theoretical framework of problem solving, it determines aims, tasks which are connected with a problem, if it concerns research it formulates hypotheses

72. Planning phase – a plan of research. It consists of the choice of respondents, methods, methodological availability (at first to formulate a problem, aim, tasks or hypotheses and then to formulate a questionnaire)

73. Empirical phase – collection of data directly among patients, categorization of data

74. Analytical phase – analysis of data and interpretation of results

75. Dissemination phase – publishing of results, writing of research report.

The aim of research in nursing is to improve the nursing taking into account previous knowledge gained in practice with the first-rate contribution to a patient.

The nurse educator helps form the conscious and responsible behaviour and performance of a patient. The task of a nurse in contact with a patient is to educate him or her about the disease, its symptoms, diagnostics, therapy, principles of regimen as well as to inform him or her about accessibility of compensation tools (Dluholucká 2001; Hrašnova et al. 2007; Hrašnova et al. 2007; Husarovičová et al. 2006; Husarovičová et Husarovičová 2006; Husarovičová et Poláková 2008; Kopačíková et al. 2009; Kopačíková et al. 2010; Kozierová et al. 1995; Novotný et al. 2007; Novotny et al. 2010; Stančiak et al. 2009). Only
correctly educated patient becomes an active co-creator of his or her treatment and care about himself or herself. Education increases the quality of life not only of the patient but also of his or her family which participates in the care of a relative.

**The nurse manager** organizes, manages and controls activities which concentrate on the way how to reach the goal. She ensures in cooperation with other medical staff the most ideal conditions for a patient to realize therapy in the phase of prevention, intensive treatment, stabilized phase and also in the phase of palliative treatment. She analyses and evaluates nursing care in the framework of the department in health institutions. She manages, controls and analyses nursing documentation. High requirements are laid upon this position – accuracy, preciseness, concentration of attention, adaptability, flexibility, self-control, self-mastery, independence and ability to work in a team.

**The nurse lawyer** represents and clarifies the rights of a patient, she is his or her defence lawyer. Patients should be informed not only about disease itself but also about their rights on the basis of public health insurance. Ministry of Health of the Slovak Republic issued The List of Health Tools and Performances which are fully or partially refunded on the basis of public health insurance (Brenda 2002). A nurse accepts a free choice of patient’s decision. She also presents and interprets the patient’s opinions and demand.

**The nurse teacher** enables to acquire new knowledge and technical skills to a patient. She teaches a patient how to take care of a part of a body affected by lymphedema, to meet the requirements of healthy living, she teaches to bandage a limb with bandage and how to use the compensation tools.

**The nurse communicator** manages the principles of effective communication, she makes use of all elements of verbal and non-verbal communication, she is able to listen and answer. The basic communication abilities of a nurse – to listen actively, feedback, respect, empathy, explanation, interest, support, discretion, authenticity, understanding and the ability to give an advice. The communication interaction should not be limited only to a simple conversation but it should be the key diagnostic and therapeutic tool.

**The nurse offering nursing care** is the role of human relations; she offers the nursing care of a patient with lymphedema with a high quality according to the newest scientific knowledge; she satisfies bio-psycho-social and spiritual needs of a patient.
The nurse mentor is responsible for the clinical supervision of students who study nursing. At present in Slovakia the instruction of lymphedema is covered by the Department of Physiotherapy. Instruction of nurses about lymphedema as a disease belongs to the section Nursing in Oncology.

The nurse carrier of changes. As other activities nursing also undergoes changes. To develop his role a nurse has to identify herself with it. Therefore nurses should be the driving and not resisting forces in the changes of nursing.

The patient with lymphoedema

Lymphoedema is a clinical demonstration of the insufficiency of the lymphatic circulation. Every year there are 40 new patients with this disease (Albert et al. 2010; Husarovičová et al. 2006; Husarovičová et Poláková 2008; Husarovičová et Poláková 2008; Schingale 2007; Zákon č.574 2004). In the clinical picture which takes place in different phases, there dominate symptoms as edema, change of the shape and colour of the affected part of the body, feeling of tension and heaviness of the affected limb, pain and tiredness. Treatment of lymphoedema does not depend on the cause of the disease and it is always the same. The most important is the conservative treatment which represents 98 % of the total treatment of lymphoedema (Husarovičová et al. 2006; Husarovičová et Husarovičová 2006; Husarovičová et Poláková 2008; Husarovičová et Husarovičová 2010; Zákon č.574 2004). Its aim is to reduce the edema and to prevent the progression of the disease. A very important part of treatment is adjustment of patient´s daily regime. It is necessary to include into the daily regime such activities which help the drain of the lymph and at the same time to exclude such activities which make the disease even worse.

The patient with lymphoedema should keep to these rules:

35. to avoid difficult and tiresome work and to wear during these manual activities compressive bandage (Husarovičová et al. 2006; Husarovičová et Husarovičová 2006; Husarovičová et Husarovičová 2010; Husarovičová et Poláková 2008; Schingale 2007; Zákon č.574 2004)

36. to prevent injuries when working with sharp subjects, when sewing, ironing and cooking. In these cases there is the possibility of scalding and burning (Husarovičová et al. 2006; Kozierová et al. 1995; Novotný et al. 2010; Schingale 2007)
37. to avoid biting of insect and animals
38. to protect a limb against coldness and being frozen and to exclude stay in the hot environment
39. not to use irritating cosmetic products, to be very careful with manicure, pedicure
40. clothes should be loose and made from cotton, they must not cut into the body (strips of a bra should be wide). The patient should not wear on the affected limb rings, watches and other accessories which could press the skin or cut into the skin
41. not to do difficult and exhausting sports as e.g. tennis, ball games, strength sports, stretching, aerobic and not to do such sports where injuries are possible. The most suitable sport is swimming.

Conclusion
Lymphedema is judged as the lifetime disease with progression tendency. Every year the number of diagnosed cases of primary and secondary lymphedema increases. Every day a nurse in her professional practice comes across a suffering man, his or her pain and very often hopelessness. At the same time she is expected to offer more human understanding and emphatic attitude as well as adequate information about the patient’s health. The role of modern nursing is to offer such a patient nursing care of high quality focused on a patient as the holistic unit.

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EDUCATION IN NURSING PROCESS

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Abstract:
The twentieth century has brought many changes to our national health practice that both recipients and providers are still getting accustomed to. Accepting a change always poses great challenge consisting above all of much understanding and belief. Nurse qualification training is based on the modern concept of health care seen as a scientific subject that is aimed at the professional concept of viewing patients as human beings. Slowly yet continuously elements of modern healthcare are successfully incorporated into practice, such is the acceptance and use of the nursing process and its documentation. Basic needs of people seem to be fulfilled. However, the area of security and safety is still in great need of improvement. Fulfilling this need would mean avoiding all dangers and threats. It also expresses a desire for reliability, trust, honesty and stability and can thus be achieved only by having sufficient amount of information and understanding that would enable situation orientation and control.

In an effective and functional educational process a nurse should be taught the role of an educator that should involve skills of ensuring the sense of safety and security. Scientific study using quantitatively qualitative research as well as questionnaire and half-structured interview methods has shown that patient education is often perceived as information transfer only, where the lack of time prevents the nurse from proceeding according to the educational process protocol. Written record of the progress of an educational process in documentation papers are basically non-existent. The effectivity of the educational process as a whole is therefore questionable.

Another area that requires new focus of interest nationwide and that is necessary for the improvement process of health care system is the education of clients, that would greatly improve the fulfilment of the need for security and safety and would enable deeper participation of clients in the nursing process.
Key words: nursing process – client – safety and security – information – education

Introduction:
Twenty years represents time long enough to enable result evaluation of the great effort put into the desired target of implementing a modern professional health care system in our country. An aim triggered not by the desire to level with countries where the evolution of a health process has not been interrupted, but mainly for the purpose to ensure dignity for people that will not, cannot or are unable to ensure health care in sickness or in health for themselves nor with the help of family and friends. How far have we come so far? We are able to recognise and promote health care as a science and a skill on the same level with other scientific areas. The aim of our quest is a human being that gets our help to fulfill his needs using the nursing process method. Many research studies have been already conducted that were aimed at need fulfilment, the use of the nursing process method and/or its individual parts including documentation. There are also several studies dealing with the nursing process and its application from medical point of view including patient satisfaction. It is therefore clear that also in practice the quality of nursing care is increasing. The question remains whether people in their role of care receivers indeed are satisfied regarding safety and security issues, which would mean that they do play an active part in the nursing process, have a say in decisions and discussions, understand their new status and situation which they are able to cope with and adapt to. This can apply to patient admission to or discharge from hospital, new skill training and so on. Useful information for each situation can be given without security and safety needs actually being fulfilled. Involvement of patients in the educational process and enabling them to go through the process of change is therefore necessary.

Aim:
To find out whether nursing documentation contains education plans
To find out if an educational nurse is usually a part of a nursing team.

Research questions:
What are the conditions for effective educational documentation?
Is the management overseeing the effectivity of education transcripts?

Hypotheses:
A standard part of nursing documentation is dedicated to education. The working system of health care in hospitals makes implementation of educational process impossible, although its transcript in nursing documentation is required.

Methodology:
Qualitatively quantitative research has been used, for which a questionnaire and a half-structured interview manual was created. Data obtained from the questionnaire were analysed by Microsoft Excel and the interviews transcribed from the audiorecording and methodologically devided into concepts and groups.

Characteristics of sample pool:
The sample pool for quantitative analysis consisted of 715 nurses from wards from faculty, regional and areal hospitals in the Plzen region. Questionnaire return was 79% of the 900 distributed issues.

Out of 15 approached head nurses, six agreed to being interviewed for the qualitative part of the research study.

Discussion:
Support of health and health education is still under development and focuses above all on achieving a better health status of the population as a whole. The term “health support” appeared for the first time at the International Conference on Primary Healthcare in Alma Ata (1978). It was mentioned in connection to the activity planning of whole countries, Health and Social Ministries and Ministries of Education. Implementation of the principles and aims of health support is closely connected to the economy situation in each country. Ottawa Charter describes health support as a process that enables people to have more power over their own health as well as over its improvement. For groups and individuals to reach total physical, mental and social satisfaction or “well-being”, they must be able to define (know and understand) and (want and be able to) make their desires real, satisfy their needs and change their environment or come to terms with it (Lemon 4, 1997). We are thus dealing with basic elements of educational impact.

Education – training taking place in a process of interaction between teacher and student where educational goals or desired changes of behaviour regarding own health should
be achieved. The aim of the behavioural change is to gain new knowledge and technical skills \cite{Kozierová, Erbová, Olivierová (1995)}. This educational process is similar to nursing or didactic (school classes) education as it happens in phases consisting of the same elements. Activities typical for health education are for instance instructional training, giving and offering advice, explaining, leading discussions and helping clients to make own decisions. This training is focused on the client, is based on his needs and leaves him to decide whether to accept the offered help, advice and suggestions and act accordingly. Achieving that the client becomes aware of the necessity of change, has the will to be a part of the process and continues using the gained knowledge and skills for the benefit of his health situation, is a professional state of art. Education is therefore one of the most difficult tasks the nurses need to master.

One of the subjects that belong to the educational qualification nursing program is Educational nursing practice. During this course students meet in 14 lecture and 14 exercise sessions. The aim of this course is to give the student basic information on the importance of education and training, to explain why educational skills are important for the nursing profession and to elucidate the process of training and education, educational principles, methods and the position of a nurse as an educator. Based on theoretical knowledge and practical training students should be able to create an educational program to be presented in healthcare environment. During the lectures students gain information about educational science, including basic technical terminology, they are introduced to educational tools and principles and educational strategies. The importance of education for enabling growth of an individual and the use of principles in professional practice are greatly emphasised. In seminars students are able to practise individual steps of the educational process together with educational interventions used by nurses in each step. Final task of the course is creating an educational plan that can be implemented in practice or presented. Here students are encouraged to use their knowledge from other courses such as Didactics of nursing subjects, Health education and of course courses such as Nursing psychology or Health care communication as a part of multisubject interactions training.

Educational activity during schooling of nursing students mostly involves health education of community members. There are many possibilities to create educational programs for specified groups of clients such as mothers to small children, parents, women, men, children in nursing schools, preschools or grammar schools, employees - or for example home care
clients, patients with specific diseases or minority communities (disadvantaged groups, risk or peer groups).

Nurses in the role of an educator – an educator must be aware of the pressure that has in the past and in present times influenced his responsibility and professionalism. Education can be seen as schooling taking place in certain situations involving people who are part of a certain educational process. This process concerns life-long improvement and enrichment in schools and educational institutions or in informal situations in schools, groups of peers or health care institutions (Malach, 2007). Such education cannot be considered one-time occasion (information transfer), as it is a process where a person must except and understand a change, which takes not only time, but also impact of didactic methods and approaches. The changes that are sought represent both immediate and, which is the most important goal of education, long-term effects (Průcha, 2002; Průcha at all. 2009). However, this is only possible in case the nurse or mentor handles such education professionally and enables the patient/client/nurse active participation.

Definition of the educational process is extensive, but it clearly expresses its main aims, form and structure saying: “Educational process is systematic, continuous and logical, science-based, planned course of actions that includes two main operations – teaching and learning. Two people, teacher and student, are involved in this process, in which they are conducting mutual teaching and learning activities leading to the desired behavioural changes” (Bastable, p.11, 2008).

Educational process is often compared to the nursing process, which is quite natural considering that the individual phases of both run in parallel despite their differing aims and purposes. Both offer somewhat more intellectual basis for the nursing practice than is offered by purely intuitive experience. Also, both processes contain basic elements of nursing assessment such as estimation, planning, implementation and evaluation. The difference can be found in the fact that the nursing process is aimed at planning and implementing nursing care based on evaluation and diagnosis of physical and psychosocial needs of the patient. On the other hand is educational process aimed at planning and implementing education based on patient evaluation and decided priorities based on educational needs of the patient, his willingness to learn and his preferred style of learning. Expected results of the nursing process are reached when physical and psychosocial needs of the patient have been satisfied, while the expectations of the educational process are reached when changes in knowledge, attitudes and
skills have appeared. Both processes develop further through repetitive estimations and evaluations that give guidance and induce change in the planning and implementation of further steps of the process. If the aim is not reached though, it is necessary to start anew and begin another phase of estimation.

It is very important to realise that education and instruction is only one of the components of the educational process. Terms education and instruction that are often mutually interchanged are ready interventions that include sharing information and experience to satisfy the planned teaching results in the cognitive, affective and motoric domain according to the educational plan. Teaching and instruction are often formal, structured and organised activities prepared several days in advance, but can sometimes be informally given on immediate initiative during a dialog established at a random meeting with the person being educated. Even though education is purposeful it does not necessarily mean long and complex tasks. On the contrary, it includes conscious activities of the teacher that are targeted at individual needs of the client. The need of learning can be expressed by a verbal request, question, hopeless, confused, embarrassed or fixed look, gestures, overwhelmed or frustrated expressions. In broader sense is teaching viewed as multifaceted changing strategy that is applicable through support, consistency or modified and heterogeneous behaviour toward the person being instructed that is perceptive, motivated and properly informed.

Teaching is defined as a relatively permanent change of mental processes, emotions and behaviours. Making an individual aware of some new knowledge, skills and changed thoughts, emotions, standpoints and actions is a lifelong dynamic process. Teaching can also be defined as a change in behaviour (knowledge, standpoints and skills) that can be observed or measured and that show whenever or wherever as a result of influence of some stimulation from the surrounding environment. Learning is an activity helping us to consciously or unconsciously gain some information or knowledge that will result in a behavioural change. Learning also helps to adapt to a difficult situation and changed circumstances, which is in health care important both for patients and their families in order to improve their health and adapt to their health situation, for nursing students that will this way gain knowledge and skills enabling them to do their job as a nurse and also for nurses and entire nursing staff that can learn more effective approaches in education, patient care and mutual collaboration. The success of a nurse as an educator trying to achieve some educational impact is measured not
only by the number of students but above all by what the students have learned and whether a change has indeed occurred.

Patient education particularly is a process that can help people to learn new health behaviours implemented into everyday life resulting in optimal health and independent self-care. Nurses and patients establish teacher-student bonds that fulfils learning needs of the patient (cognitive, postural, motoric) using the educational process. The **first phase** of the educational process establishes who and by what method is to be educated, where the sense and purpose of the planned action is sought. Contact with the patient/client is necessary to conclude this step in order to get to know and understand the person in question. We need to know in what life and health situation the person is as well as what mental level and motoric ability he is on. He can here be represented both by an individual or a group. It is important to establish the level of motivation that will ease or complicate the educational pursuit of the educator. Based on the found facts possible educational aims, didactic methods and tools can be chosen.

The **second phase** consists of planning the targeted approach based on given educational problems – client needs. In the next phase – **implementation** – the influence of the chosen methods and tools is starting to have impact on the knowledge, skills and opinions of the educated person. Here the nurse also works with four specific elements: pressure, vision, competence and motivation. When all four of these elements have simultaneous impact the required change, a new expected quality can be achieved. By the pressure is understood the requirements of the doctor, the family and the overall environment. Also an inner will and own effort, sometimes seen as self-motivation can be considered to be pressure and is deemed as very important for the educational process. By vision we mean a clear target, which also needs to be agreed upon by the client, as individual visions of client and educator can differ and thus induce a conflict of interest and a failure of reaching the aim altogether. Competence then is connected to the educator (which educational activities he mastered and how) and the client, who is restricted by his motoric, knowledge-based and opinion-related competences. The last phase is concerned with evaluation of results reached both by the client and the nurse. Self-evaluation is very important for motivation, should not be omitted by the nurse and should on the contrary be used to its maximum potential. Evaluation also enables the effectivity assessment of the educational impact and of the individual phases of the educational process.
Educational activity of the nurse is efficient if its effectivity can be followed, which is possible only with the help of consequential documentation. The nurse/mentor should record found information, proposed plan, effect of the method used, progress and change in knowledge, skills and opinions of the person being educated (Závodná, 2005; Tomanová, 2002; Košková, 2002).

Results:
It is clear that answers from some of the respondents are inconsistent or they perceived the questions without any connection to the educational process. 87 % of nurses saw the educational process as an everyday part of health care. However, 62 % states that there is no factual place in the documentation for transcript of the educational process, 20 % only has a single space in the documentation and 18 % can use a special form for this purpose. The respondents also informed us that education is conducted by any nurse (72 %), 12 % nurses use an educational nurse and in 16 % cases the education is conducted by the ward nurse. Head nurses commented this situation as follows: „Every graduate is after starting to work going through an adaptational process in which she is among other tasks learning to work on documentation. I prefer all nurses to be able to educate correctly. They are educating clients and their family member their whole time on duty.‟ „Educational activity is of course included in the workload of practical nurses and midwives. I prefer all nurses to be capable of educational activities. „

On the other hand does the time spent on educational activities vary greatly. 53 % of the respondents spend 5 minutes on education, 17 % say they spend fifteen minutes, 11 % spend 30 minutes and finally 13 % mentions 45 minutes. Whether this concerned one-time or everyday education has not been the subject of the observation, as this was followed in the everyday educational activities. It is clear that two necessary elements of effective education are missing – time and documentation. Head nurses comment this as follows: „Education of the clients and their families does according to me not fully use the role of the nurse. An educational nurse should not be disconnected from normal practice. I would rather prefer bed nurses to be given enough time, quiet and the right tools. „ „I would be very satisfied to see nurses having better conditions for this this type of activity.‟ These comments from head nurses are reasonable indeed, and supported by theoretical facts. It is well known that a person needs a certain space of time in order to absorb and process information – to understand and realise – then use and evaluate it. With other words, time is needed for a continuous change to
occur, this being in fact the aim of the educational process. Furthermore, under the influence of unusual surroundings, illness and the overall health status and the changed personal social situation the time needed for implementation of the above mentioned function is often prolonged.

An interesting fact found among the answers from responding nurses is that no standard concerned with educational activities exists on any of the workplaces in our focus. Our opinion is that education is only now starting to get into the centre of attention when the quality of health care is concerned, as securing quality health care has so far been more important from the viewpoint of the nursing process and the fulfilment of the basic needs. On the other hand, 25 % of the respondent state to be using educational plans and 85 % have no such plans to their disposal. Head nurses comment this as follows: “I feel the lack of any educational transcript. Education is only mentioned by nurses in documentation reports.” The fact that educational activity is currently in the centre of attention is shown by further testimony of the nursing management: “We have already discussed the need of creation an educational transcript. “, „For the time being we are working on the educational plans.”, “We are currently placing education cards into documentation files.”

Interviews with head nurses that have been in their working position for 2 to 20 years, that have gained Bachelor's degree in four cases and Master's degree in two cases, have said that they perceive the importance and benefit from the educational activity the nurses perform, although the conditions for effective implementation are not ideal everywhere. “I notice effective documentation management when going through notes and doing actual assessment of patient status, such as visual contact or status evaluation using the measuring scale.”

However, supervision of this activity cannot be sufficient as the documentation and notes on what activity was performed and how is missing along with that on the resulting effect thereof. From further reports from head nurses follows that this is a problem that cannot be resolved by a one-step solution. The client must always be placed in the highest regard together with the aim of the educational activity. Based on this fact the choice of whom, when, where and how must be established. From the following reactions it is clear that it is desirable to use an educational nurse in some cases while in others it is necessary for every nurse to apply their educational skills and knowledge on the ward as a part of the nursing process.
“The educational nurse on our ward takes care of our patients suffering from diabetes mellitus. She has own premises she can use.”, “We have specialised practices in our clinic, where we use educational nurses that are dealing with for example healing of chronic wounds, clients with diabetes mellitus and so on. To my opinion, some healthcare institutions do need educational nurses. This regards to specialised nurses such as stoma nurses, diet nurses or stomatology nurses.” “We have educational nurses in standard wards that we have created special premises for.” In some cases a possible overstepping of competences can be suspected, especially if information given is a responsibility of the ward doctor. From documentation notes it is unclear whether this possible overstepping concerned given written information or if certain time has been planned and spent for discussion of the given information in order to ensure that the client understood the situation and has gained control over it. “Educational nurses on our ward keep to the record of informed consents that patients sign instead of the doctor. Original forms are used and these so called educational records must also be signed by the client. Nurses have even created original brochures, books and leaflets for the purpose of education.” It is satisfying that 66 % of the nurses are interested in creating the documentation, but 62 % has no possibility to lead a discussion about the documentation. 39 % of the respondents would be interested in a seminar or a course but for 96 % of the nurses the management organises no such seminars or courses that would deal with educational activities.

In conclusion it can be stated that educational plans are not a part of the nursing documentation and also that an educational nurse usually is not a part of a nursing team. Conditions for effective educational documentation are practically non-existent and the management observes the effectivity of educational transcripts that usually comprises only of nurse reports, although not in proper documentation form that would be a standard part of the nursing documentation. The management is aware of the situation and is trying to make a change. The hypothesis that “a standard part of nursing documentation is dedicated to education has not been inferred, in contrary to the second hypothesis that the working system of health care in hospitals makes implementation of educational process impossible, although its transcript in nursing documentation is required has indeed been proved to be true.

Conclusions:
Scientific research has shown that effective educational practice in nursing process still stands at the beginning of its incorporation into normal practice. In other words, there is a large gap
between theoretical knowledge and practical use. Although the function of individual educational and didactical methods and techniques is well known and although the positive and negative impacts of different principles and elements on the process have been identified, ideal conditions for its application are yet to come. Above all there is the insufficient time the nurses have for each client and for this purpose. In such case clients logically find themselves in a situation where they feel insecure and threatened, without a chance to own opinion or counsel, they start feeling inferior, ashamed for not knowing or understanding what is expected from them. The need of safety and security is easily threatened as is the need of appreciation and self-esteem, cognitive needs and self-fulfilment, when a person starts to doubt his own potential. Then there cannot be any mentioning of well-being and balance. Instead a failure of nursing care for not achieving given goals is at stake.

Despite the unfavourable results, we have found that changes are under way that should bring improvements not only regarding clients, but also the professional status of the nurses.

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The paper is of high quality and is suitable for publishing. The bibliography had to be modified.

FAMILY EDUCATION FOCUSING ON ALLERGY OF COW’S MILK PROTEIN

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Abstract

Intervention of family/patient education in terms of processes in health promotion, protection and development of health has a key role. Educational programs and educational interventions are now an important part of primary prevention of diseases.

Aim of the study: The main aim of our study was to determine whether intervention - a structured educational program on child nutrition in the first year of life, will be effective. Intermediate goal was to prepare an educational program for mothers whose children have a positive family history of allergy, implement it and then evaluate its effectiveness in three endpoints - clinical symptoms, knowledge about nutrition measures, satisfaction with lifestyle measures.

Material and method: The research and control samples were in the educational program include mothers with a positive family history of allergy. To sample enrolled 78 mothers, the research group consisted of 38 mothers who were educated through the program and control group consisted of 40 mothers. To collect empirical data, we used the questionnaire in its compilation was based on the Nursing Outcomes Classification.

Results: From the processing data can be said that a group of mothers who graduated from an educational program, reaching statistically significant results compared with a group of mothers with no education. When comparing groups, research and control, we can say that the research group achieved better knowledge level compared to the control group.

Conclusion: Diet of infants, alternate formula, along with general boarding procedures are shown to be an important aspect in promoting healthy eating. Optimum nutrition and good eating habits are the main determinants of child health, its growth and development.

Key words: family/mothers education, childhood, dietary guidelines, allergy on cow’s milk protein

Introduction

Educational intervention in the processes of promotion, protection and development of health has a key role. Educational programs and educational interventions are now an important part
of primary prevention of diseases. The documents in the field of nursing records the expansion of nursing in primary health care team that focuses on prevention, maintenance and health promotion. Designing effective interventions for primary prevention and their evaluation should be based on evidence. Research area of educational programs is becoming particularly acute for populations where the incidence of disease a growing trend. From this perspective, it is important to study specific groups, which should be targeted educational interventions. Slovakia is a visible upward trend increase in allergic diseases in childhood. Allergy to cow's milk protein (ACM) is an important nosological entity for children in the first year of life. (Jeseňák, 2008, s. 146-150) In this early period of childhood is mainly ABKM specific problem. In this paper, the authors focus on the content of the educational program, in terms of child nutrition.

**Objective**

The main aim of our study was to determine whether intervention - a structured educational program on child nutrition in the first year of life, will be effective. Intermediate objectives of the study was to develop an educational program for mothers whose children have a positive family history of allergy, implement it and then evaluate its effectiveness in the monitoring parameters. We evaluated maternal knowledge about preventive measures, nutrition, clinical signs ABKM and their satisfaction with lifestyle measures. In compiling the content pages of educational sessions are based on recommendations of international companies (WHO, ESPGHAN, ESPACE, AAP). In practical terms, we have to focus on current knowledge on the most common symptoms ACM, gastrointestinal, skin and respiratory.

**Material and methods**

For the selection of participants, we selected a deliberate choice. In research as well as control samples for examining the educational program in the prevention of food allergy in children in the first year of life were included mothers with a positive family history of allergy. Under a positive family history, we understand the incidence of allergic disease in close family (mother, father, siblings of the child, grandparents). Other criteria for inclusion to the sample were child's age to 12 months, informed parental consent and willingness to cooperate. To sample enrolled 78 mothers of the research consisted of 38 mothers educated according to program and control group consisted of 40 mothers. For more detailed description of the research groups and educational settings for subsequent sessions, we have searched the data as: maternal age, child age, maternal education and number of births.
42. Educational program.

The practical part of the research we conducted an intervention study with mothers with a positive family history of allergy. Implementation of the intervention study was created by our specific educational program, whose effectiveness was then evaluated. The choice of topics for an educational program based on specialized program for nurses working in allergology, which provides University of South Australia, Division of Health Science - School of Nursing and Midwifery. An educational program consisted of three educational sessions. The first two educational sessions focused on preventive nutrition measures in the first year of life of the child, the third session was devoted to the most common clinical sign of food allergy in infancy.

43. Questionnaire

To collect empirical data we used, created a questionnaire based on the Nursing outcomes classification. Questionnaire was focused on knowledge of mothers on preventive nutrition measures on satisfaction with lifestyle measures and the occurrence of clinical symptoms in children. Research measuring instrument based on the classification of nursing outcomes (Nursing Outcomes Classification - NOC). Includes evaluation of the results indicators: knowledge about nutrition (diet Knowledge), systemic allergic reaction (Allergic Response: Systematic) and local allergic reaction (Allergic Response: Localize). Nursing outcome knowledge on nutrition (Knowledge: Diet - 1802) is described in the domain: health behavior, knowledge of health (Health Knowledge and Behavior), in the classroom: knowledge (Health Knowledge). Indicators of outcome evaluation skills are: the recommended diet, diet reasons, the benefits of diet, dietary goals, adequate food, improper food, adequate fluids, inadequate fluid interpretation of food labels, food preparation, self monitoring techniques. On the classification of knowledge, we were inspired by NOC system, the average value we measured using the following scale: 1 to 2 minimum knowledge, from 2.1 to 3 limited knowledge from 3.1 to 4 appropriate knowledge, from 4.1 to 5 broad knowledge. Cronbachov alpha coefficient for the range of knowledge $\alpha = 0.82$, scale is highly reliable.

Result

The scale of questionnaire/knowledge included items related knowledge of mothers about: elimination diet for mother and child, reasoning subsistence allowances and benefits of its objectives, appropriate food for the child and the mother, inadequate food for the child and mother suitable fluid for the baby and the mother, inadequate fluid for child and maternal
ability interpretation of food labels, food storage at home, self-monitoring techniques. The results are interpreted as individual items.

**Table 1** Verification of a statistical difference in the scale of knowledge - individual items

<table>
<thead>
<tr>
<th>Items</th>
<th>Research group (n = 38)</th>
<th>Control group (n = 40)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>need for elimination diet</td>
<td>4.63</td>
<td>4.17</td>
<td>0.010</td>
</tr>
<tr>
<td>dietary restriction of child/mothers</td>
<td>4.61</td>
<td>4.25</td>
<td>0.039</td>
</tr>
<tr>
<td>benefit of diet</td>
<td>4.79</td>
<td>4.37</td>
<td>0.001</td>
</tr>
<tr>
<td>nutrition objective measures</td>
<td>4.74</td>
<td>4.30</td>
<td>0.001</td>
</tr>
<tr>
<td>appropriate food for child</td>
<td>4.84</td>
<td>3.57</td>
<td>0.000</td>
</tr>
<tr>
<td>appropriate fluid for child</td>
<td>4.42</td>
<td>3.88</td>
<td>0.044</td>
</tr>
<tr>
<td>inadequate food to 1 year of life</td>
<td>4.87</td>
<td>3.72</td>
<td>0.000</td>
</tr>
<tr>
<td>inadequate fluid to 1 year of life</td>
<td>4.82</td>
<td>4.30</td>
<td>0.001</td>
</tr>
<tr>
<td>interpretation of product labels</td>
<td>4.71</td>
<td>4.38</td>
<td>0.004</td>
</tr>
<tr>
<td>food storage to another use</td>
<td>3.95</td>
<td>1.67</td>
<td>0.000</td>
</tr>
<tr>
<td>introduction of additional food</td>
<td>4.50</td>
<td>1.90</td>
<td>0.000</td>
</tr>
<tr>
<td>introduction of new food</td>
<td>4.76</td>
<td>4.42</td>
<td>0.008</td>
</tr>
</tbody>
</table>

Table 1 shows the differences in scale of knowledge between research and control group. Processed data, we can conclude that a research group of mothers who go through an educational program, reaching statistically significant results compared with a control group, mothers with no education. Weaknesses in the group were recorded by level of total score range and the average score of each item. Control group achieved lower overall scores (x = 3.74), which was evaluated as an appropriate level of knowledge. The most significant statistical differences at significance level of 5% (p = 0.000) were found in item appropriate food for child, where scores were achieved at the appropriate level of knowledge. Then in the item food storage to another use and in the item introduction of additional food mothers achieved score at the minimum level of knowledge. On a statistically significant difference (p = 0.000) between groups, we can say that the hypothesis that we set H1: We assume that the statistically significant difference in knowledge after a specific program education of mothers, compared with a control group (mothers that specifically education not received) was confirmed.

**Discussion**

In the scale of knowledge, we evaluated the endpoints - the outcome indicators under the Nursing Outcomes Classification - domain knowledge, namely: the recommended diet, its rationale, benefits and objectives, appropriate, inappropriate food and fluid interpretation of product labels, food prepared home. We found that the average overall scores of research group was 4.636 (maximum 5), which can be interpreted as a broad knowledge of preventive
dietary measures. Mothers in the research group achieved in scoring almost maximum score. In the control group (without education package) the total average score was 3.746 (maximum 5), which was evaluated as adequate knowledge. Evaluation of knowledge about nutrition measures in the control group shows as satisfactory. Between groups were found statistically significant differences in all items where the level of significance was \( P \leq 0.05 \). Research group reached in each higher level of knowledge than the control group. In mothers group, who get an education package, we found major deficiencies in the storage of food, than in items introduction of additional food to the child's diet. Control group achieved the minimum level of knowledge \( x = 1.67 \) \( x = 1.90 \) in these items. Recently the question of introducing non-milk side dish are discussed in relation to the prevention of allergies. Below mentioned general dietary and nutrition recommendations for children in their first year, we provided for mothers in the first and second sessions of educational specifics. Complementary foods are defined as non-lactic diet consisting of food and fluids to be administered to breast milk or formula milk. Prerequisite for their introduction are the psychomotor and physiological maturity of the infant. (Čierna, Kovács, 2010, s. 50) It was assumed that the earlier introduction of complementary food can have a negative effect on child health and contribute to the development of disease. Adjusted according to new recommendations of the European Society for Pediatric Gastroenterology optimal period to start complementary food and nutrition for a healthy infant is between 17 and 26 week. (Agostoni, 2008, p.109 – 110) According to the latest food guidelines recommend incorporating into the diet of an individual assessment of the risk of developing allergies. Early introduction, before 4 month, some allergens into the diet is associated with an increased risk of atopic dermatitis. (Norris et.al., 2005, s. 2349 – 2351) Published work on the subsequent introduction of additional food and potential allergens in food is inconsistent. (Muraro, 2004, p. 305-307) Several studies show that introduction will not prevent subsequent development of allergies only clothed its onset. (Filipiak et.al., 2007, p. 331-333) We also found deficiencies in the item of appropriate fluid, where an average score of items was achieved \( x = 3.88 \), what was evaluated as adequate knowledge. Yet, in this group were mothers, who served fluids as an sweetened tea and other sweetened drinks during breast-feeding. This we consider to be inappropriate, because full breast-feeding to the sixth month of age cover nutritional requirements of the organism and is unnecessary given the child water, herbal tea or bottles of glucose solutions. During heat waves and warm days are preferred as the liquid boiled water and tea for children. (Jakušová,
Dostal, 2003, p. 43) For children who are not fully breastfed, or on substitution of artificial nutrition is also appropriate given the said fluid. After six months they are 100% fruit juices (apple). In item, preparation meals at home shows as a most frequently lack, food storage to another use. It is not appropriate that baby foods and additional food, whether prepared at home or purchased in retail chains, was stored to the second day and served to child. Meals should be prepared and served fresh. ESPGHAN recommends introduce in infants at risk for the development of atopy the first non-milk side dish in the sixth month of life. According to the recommendations any new food should be served separately in a few days apart, so that in case of intolerance could be easily identified. ESPGHAN recommends that within one week inserted a maximum of two new food. Food should be given first cooked. New foods should be introduced, as far as possible at home, or where medical assistance is available. Strongly allergenic foods into the diet of the child to be introduced after the first year of life. (Koletzko, 2005, s. 584 – 599) Egg white is permitted by the second year of life, the cooked yolk from the eighteenth month of life. Vegetables, if tolerated in the cooked form, can be administered also in raw form but in smaller quantities. Fruit should be administered in the compote form, and later in the raw form. Rice is recommended to be administered from the sixth month of life. In the transition to cow's milk and dairy products should not be given fresh milk. "At the beginning are served cheese and if adverse symptoms not appear, can be used to try and sour milk products. If child tolerates these foods, it is advisable to switch to milk base formula designed for babies. " (Jakušová, 2003, s. 50) We recorded that mothers had also problems with correct interpretation of composition of the purchased product on its label. In our opinion the correct interpretation of product is important, because food in retail chains may contain hidden allergens, or only small amounts of causal foods to which a child may respond symptomatically. Risk may be for baby food served in the visits and restaurant facilities. Parents should therefore pay attention to foods that child dietary intake. And they should also inform the person that most come into contact with the child about foods which should be eliminated from the diet. In our research group, the mothers complained frequently to the child's grandparents, who did not respect regulations concerning food from parents and downplayed the development possibility of problems. As protective factor for allergic disease is considered the longest breast feeding the child.(Friedman, Zeiger, 2005) Full breast feeding defined by the World Health Organization is the exclusive breastfeeding without the ingestion of milk or other kind of side dish. For children who have a positive family history of allergy
and for any reason are not breast-fed are use as a replacement for nutrition, formula containing partially hydrolyzed protein (pHF). (Johansson, 2004) These dietary formulas reduce, but not completely exclude the risk of atopic symptoms in the first two years of life. Their residual antigenicity is low, but higher than in preparations with a high degree of hydrolysis, which are intended for therapeutic use. Extensive hydrolyzed formulas (eHF) based on cow's milk are using in infants who are not breastfed and have existing clinical symptoms of food allergies. Their residual antigenicity is low. The preparation may not contain molecules with molecular weight higher than 3000 Daltons. Children who suffer from multiprotein allergies and they immune-responsive to the residual cow's milk protein, must receive an elemental diet containing amino acids. (Frühauf, 2004)

**Conclusion**

Current trend in nursing is a multifaceted training and educational activities aimed at creating a prudent and responsible behavior and actions of individuals or groups with a view to promote, preserve and maintain health. Our educational package designed for mothers of children at risk of developing food allergies contribute to improving the knowledge level of preventive dietary measures in the first year of life. For realization of educational interventions we see much scope for nurses who work in primary care. Nurses should develop sufficient space for the intervention of education. Therefore, for practical realization of intervention is considered in terms of practicality and temporal coherence of the ambulance. It would be appropriate for the vast majority of mothers convey the right information nurses working in pediatric primary care. The advantage is even more frequent contact with the outpatient doctor and nurse in "counseling". We can assume that frequent contact with mother create a more intimate atmosphere than the one-off contact. If is needed to provide specific information from this area, mother should be contacted to the necessary experts.

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MONITORING-BLUNTING COGNITIVE COPING STYLE, PREOPERATIVE INFORMATION AND PREOPERATIVE ANXIETY. A SYSTEMATIC REVIEW

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Abstract

There is growing empirical evidence that association of coping style and the amount of provided information influence anxiety prior to surgical procedure or threatening medical examination. The aim of the study is to critically evaluate findings concerning the association of monitoring-blunting cognitive coping style, preoperative information and preoperative anxiety. The EBSCO Research Databases, ProQuest Central, ScienceDirect and SCOPUS databases were searched for studies published since 1980. Reference lists of these studies were also searched for additional references. By the search strategy were identified 10 studies that met the inclusion criteria. Analysed studies yielded no consistent results, match of coping style and amount of information was not proved to be an effective anxiety reduction strategy. Methodological limits, suggestions for future research and practical implications are discussed.

Key words
monitoring, blunting, coping, information, preoperative anxiety

Introduction

Patients anticipating surgery experience significant anxiety. The prevalence of anxiety prior to surgical procedures has been reported to range from 11% to 80% among adult patient populations (Maranets & Kain, 1999). The worries concern fear of surgery and death, loss of inde-
dependence, separation from family, postoperative pain (Caumo et al., 2001). Preoperative anxiety can result in longer period needed for recovery, higher levels of postoperative pain (Kain et al., 2000), decreased comfort and quality of life, decreased compliance and decreased ability to make appropriate treatment decisions (Caumo et al., 2001).

Considerable research has investigated the impact of various anxiety reducing interventions prior to surgery or diagnostic procedure. One of the most commonly implemented interventions is the provision of information about upcoming event. Providing information should make the situation more predictable and less threatening and thus decrease anxiety, but results are inconsistent. Numerous studies have concluded that providing patients with preoperative information has beneficial outcomes but some studies even report that providing information prior to surgery is in some patients associated with increased anxiety (Stoddard et al., 2005). One of the possible explanations is that when people face uncontrollable stressor the confrontation with details is rather anxiety provoking than anxiety reducing. Some authors (Munafo & Stevenson, 2001) point to the fact that research of preoperative anxiety ignores the role of personality dispositions and reduces the preoperative anxiety to the state caused by surgery and influenceable by uniform interventions. They suggest that anxiety is not something that exists in isolation but rather operates in a specific context of an individual and that there are individual differences responsible for preoperative adaptation. Simmilarly, Endler and Kovac (2001) propose a multidimensional model of anxiety. According to this model levels of state anxiety are dependent upon both the person and the stressful situation.

Another source of evidence for predisposing role of personality is cognitive theory of anxiety disorders (Beck, 2005). The basic premise of this theory is that abnormalities in appraisal and information processing (e.g. dysfunctional beliefs, catastrophic misinterpretations) play a crucial role in causing various anxiety disorders. In other words, how people adapt to threatening situation depends on how they perceive and interpret it. The view of presurgical anxiety as a patient's response to interpretation of a life-threatening event has an ample empirical support, e. g. Friedlander et al. (1982) examined the role of internal-external locus of control in patients on the eve of major surgery. Higher levels of anxiety were associated with more anticipated stressful experiences, stronger beliefs that powerful others and chance influence events,
and weaker beliefs that events are caused by one’s own efforts. Cognitive base of anxiety disorders is widely accepted (Starcevic & Berle, 2006).

**Monitoring-blunting cognitive coping style**

In the face of threatening situation, people differ in their use of coping strategies. The particular dimension of coping that is relevant to the question if and how utilize information as a pre-operative intervention is information seeking versus information avoidance (Miller & Mangen, 1983). Miller (1987) states that the impact of information on anxiety is moderated by patients’ desire for information and proposes monitoring-blunting model concerning the processing of health information. According to this model, people cope differently with confronting situations by either seeking out threat-relevant information to make events more predictable (monitoring) or cognitively distracting from it preferring the event to remain unpredictable (blunting).

High monitors are characterized as concerned about health risks, scanning for potentially threatening health information and amplifying threatening cues. They tend to experience more anxiety during medical procedures, tend to respond better to more information, and pay more attention to preventative health behaviors (Miller, 1996). According to research evidence monitors demonstrate higher levels of trait anxiety than blunters (e.g. Stoddard et al., 2005). High blunters are characterized by postponing confrontation with potentially threatening information, using defensive mechanisms of avoidance and denial (Miller, 1996). As Miller (1996) states, in medical conditions monitors and blunters cope better when amount of and desire for information are matched i.e. when monitors receive extensive information and blunters receive only standard information concerning the upcoming procedure. Increased anxiety can be expected in monitors who are deprived of information and in blunters who are deprived of their desire to avoid information.

The aim of the study is to review and evaluate evidence in literature concerning association of monitoring-blunting coping style, amount and type of provided information and anxiety in health-threatening situations i.e. prior to surgical or diagnostic procedure.
The EBSCO Research Databases, ProQuest Central, ScienceDirect and SCOPUS databases were searched for studies published since 1980. Reference lists of these studies were also searched for additional references. Studies, that had the words „monitoring“, „blunting“ „preoperative“, „anxiety“ in the title, abstract or keywords were searched.

We decided to apply following inclusion criteria:

44. authors examined effect of providing preoperative information congruent with coping style (monitoring-blunting) and assessed anxiety prior to surgical or diagnostic procedure in adult population (studies concerning prevention, health promotion, disease detection behavior and rehabilitation situation were excluded)

45. study was published since 1980

46. study was published in English, German or Slovak language

Since the aim of the study is very specific and the search was narrow, we identified only 10 studies that examined effect of information and coping style match on anxiety prior to surgery or diagnostic procedure. Basic information about reviewed studies is presented in the table.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Year</th>
<th>Procedure and sample size</th>
<th>Methods*</th>
<th>Effect of information-coping style match on anxiety</th>
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<tbody>
<tr>
<td>Miller and Mangan</td>
<td>1983</td>
<td>colposcopy (n=40)</td>
<td>STAI-S</td>
<td>YES</td>
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<td></td>
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<td>MBSS</td>
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<td>Ludwick-Rosenthal and Neufeld</td>
<td>1993</td>
<td>cardiac catheterization (n=72)</td>
<td>STAI-S</td>
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<td>MBSS</td>
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<td>KHOS-I</td>
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<td>Davis et al.</td>
<td>1994a</td>
<td>preparing for cardiac catheterization (n=145)</td>
<td>STAI-S</td>
<td>YES</td>
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<td>MBSS</td>
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<tr>
<td>Davis et al.</td>
<td>1994b</td>
<td>undergoing cardiac catheterization (n=145)</td>
<td>MBSS</td>
<td>NO</td>
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<td>PM</td>
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<td>Morgan et al.</td>
<td>1998</td>
<td>colonoscopy (n=80)</td>
<td>STAI-S</td>
<td>YES</td>
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<td>STAI-T</td>
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<td>PM</td>
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<td>Study (Reference)</td>
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<td>Andrews et al.</td>
<td>1999</td>
<td>Monitoring for surgical treatment for temporal lobe epilepsy (n=100)</td>
<td></td>
<td>STAI-S, HADS, MBSS</td>
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<tr>
<td>van der Zee et al.</td>
<td>2002</td>
<td>Cardiac surgery (n=93)</td>
<td></td>
<td>STAI-S, MBSS</td>
</tr>
<tr>
<td>van Vliet et al.</td>
<td>2004</td>
<td>Gastrointestinal endoscopy (n=260)</td>
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<td>STAI-S, STAI-T, VAS, TMSI</td>
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<tr>
<td>Stoddard et al.</td>
<td>2005</td>
<td>Non-cancer day surgery (n=98)</td>
<td></td>
<td>STAI-S, STAI-T, APAIS, MBSS</td>
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<tr>
<td>van Zuuren et al.</td>
<td>2006</td>
<td>Gastrointestinal endoscopy (n=95)</td>
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<td>STAI-S, VAS, TMSI</td>
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</table>

* Only measures of anxiety and coping style are presented

APAIS – The Amsterdam Preoperative Anxiety and Information Scale, CA – Cardiac Catheterization Adjustment Scale (behavioral measure), KHOS-I – Krantz Health Opinion Survey, MBSS – Miller Behavioral Style Scale, PM – physiologic measures (heart rate and systolic and diastolic blood pressure), STAI-T – Spielberger Trait Anxiety Inventory, STAI-S – Spielberger State Anxiety Inventory, SUDS – Subjective Units of Distress (self-report measure), TMSI – Threatening Medical Situation Inventory, VAS – Visual analog scale

Study design employed was in almost all cases controlled experiment. We identified only two randomized controlled studies (Davis et al., 1994a; van Zuuren et al., 2006). Various measures for monitoring-blunting coping style (MBSS, KHOS-I, TMSI) and anxiety (STAI-S, STAI-T, VAS, APAIS, HADS, physiological measures) were applied and various means of preoperative informations were utilized (personal consultation, telephone consultation, brochure or booklet, video). The reviewed experiments are discussed below, grouped by the results obtained, i.e. whether the interpretation of results supports the information-coping style match hypothesis or not.
Evidence supporting information-coping style match effect

One half of the reviewed studies showed that it is beneficial to provide patients prior to surgery or medical examination with information congruent with their coping style. All studies used the state subscale of the STAI as an index of preoperative anxiety, one employed also VAS (van Zuuren et al., 2006) and one physiologic (systolic blood pressure and pulse) and observed behavioral indices of anxiety (Morgan et al., 1998). For assessing monitoring-blunting were used various methods (MBSS, KHOS-I, TMSI).

Some important findings emerge from the review of these studies. First, when coping style and preparatory information level were matched, patients experienced significantly less self-report anxiety. In other words, blusters were more comfortable with low information and monitors were more comfortable with high information. However, the intervention failed to influence physiologic and behavioral indices of anxiety. Second, monitors experienced more anxiety preoperatively and needed more time to recover from the procedure than did blusters. Third, patients given information not congruent with their coping style maintained their pre-intervention anxiety level or even reported an increase in anxiety. The last finding raises a question if it is acceptable to provide patients with intervention known as not beneficial and should be considered in further research.

Finally, among various means of preoperative information providing, giving patients an information brochure seems to be the most efficient intervention in relation to its low costs and its time saving aspects. The brochure can easily be implemented in standard practice without the necessity to take the patient’s coping style into account. In experiment of van Zuuren et al. (2006) patients had a choice to read the whole brochure or only separate section with summarized information (patients were assured they will not miss any important information when reading only summary). All patients receiving the brochure experienced less anxiety before the procedure and were more satisfied with the preparation for it. Another advantage is that written material can minimize effect of information provider gender.

Evidence not supporting information-coping style match effect

The same number of reviewed studies reports that the data failed to support the information-coping style match hypothesis. Providing information congruent with coping style did not reduce anxiety significantly as compared to the patients provided non congruent information.
For measuring preoperative anxiety was in all cases employed the state subscale of the STAI, except the one (Davis et al., 1994b) which used physiologic (systolic blood pressure and pulse) and behavioral measures of anxiety. One study also added HADS (Andrews et al., 1999), one VAS (van Vliet et al., 2004) and one APAIS (Stoddard et al., 2005). Monitoring-blunting style was assessed via MBSS, in one case was used TMSI (van Vliet et al., 2004).

In all cases authors did not gain significant results, in one case (Andrews et al., 1999) the proportion of participants in four groups (high-information monitors, low-information monitors, high-information bluters, low-information bluters) that did not allow authors to conduct statistical analyses comparing postintervention anxiety levels. There are some possible explanations related to theoretical background of the monitoring-blunting construct and also to some methodological limits.

At the stage of assessment there is a problem of validity (self-report vs. rating) and sensitivity to change of outcome anxiety measurement. Interestingly, if physiologic and behavioral measures of anxiety were employed, they were not influenced by the congruency between coping style and information type (Davis et al., 1994b; Morgan et al., 1998). In addition to the crucial construct – monitoring-blunting – was measured via various methods following various theoretical backgrounds. Monitoring and blunting have first been considered to be the opposite poles of one dimension as measured by Miller Behavioral Style Scale (MBSS). Van Zuuren et al. (1996) commented upon validity of MBSS and suggest that both dimensions are independent of each other. They introduced another measure of monitoring-blunting – Threatening Medical Situation Inventory (TMSI). There is still no agreement whether this information processing style is categorical (monitors, bluters) or dimensional (high monitors, low monitors, high bluters, low bluters) variable and how to define cut-off score. Since bluters are relatively rare compared to monitors (Andrews et al., 1999), there is problem of proportion of both monitors and bluters in experimental and control conditions. Last but not least, there is a serious problem how to find balance between homogenity of population, which is methodologically advantageous, and the issue of external validity and generalization of results.
At the stage of intervention, in some studies there was no check of patients’ understanding of provided information and satisfaction with it. The extent to which patients actually understood the information they received is a factor that may mediate the impact of intervention on anxiety. Experiments also varied in time when the information was provided. In cases, when this happens just before the procedure (e.g. van Vliet et al., 2004), it may be too late to have clinical effect. Another important issue is explicit definition of intervention, clear difference between experimental and control condition and check for confounding variables. Patients in the experimental conditions may improve due to individual attention from a health care provider, rather than due to the intervention itself. Finally, there are also important ethical considerations. Some authors employed research setting that provided one group of patients with information not congruent with their coping style, although they knew it was not beneficial, even distressing.

Conclusions

The aim of the study was to offer a clear picture of research conducted in area of preoperative patient education congruent with coping style as an anxiety reduction strategy. Reviewed studies yielded no consistent results that raise a number of issues for future research. Five experiments verified the effect of information-coping style match and five did not. Some possible explanations related to methodological weaknesses and limits were discussed above. These should be addressed in further research in this area, since there is still a lack of studies examining effect of information and coping style match on preoperative anxiety, partly because of complexity of conducting rigorous research in medical field settings. Anyway, conducting randomized control trials in nursing is needed and should be encouraged (Richards & Hamers, 2009).

Reviewed studies also suggest some implications for clinical practice. Although providing patients with preoperative materials seems to be beneficial, the crucial factor influencing preoperative adaptation is positive interaction between hospital staff and patients. Van der Zee et al. (2002) found out that anxiety reduction was related to the perceived quality of the premedication consult – the more positively evaluated patients the interaction with the anesthesiologist, the stronger was the patients' anxiety reduction. As authors suggest it is more important to pay attention on how information is provided, rather than on the content of information.
As the most effective non-personal form of preoperative education is suggested providing patients with an information brochure, due to its time and cost saving aspects and easy implementation in clinical conditions (van Zuuren et al., 2006). If preoperative information is provided, material should be composed of three various types of information – procedural information, objective sensory information and behavioral instructions (e. g. van Vliet, 2004). Procedural information focuses on the sequence and type of events that a patient is likely to encounter, whereas sensory information describes the sensations that patients typically experience during a procedure or operation, including what the patient may see, hear, feel, or smell (Morgan et al., 1998). Furthermore, the material should be compiled of both types of information (necessary and additional) and it should be clearly defined what information is necessary in order to cope well with a procedure and what information is additional.

Last but not least, with respect to character of procedure van Vliet et al. (2004) suggest that in case of uncontrollable and unpredictable threatening procedures, the preparation should consist of supporting the patient rather than providing the information. In contrast, information seems particularly suitable for procedures that are unknown, not too burdensome, predictable and to a certain extent controllable.

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EDUCATION AS ONE KEY FACTOR OF PROFESSIONALISATION IN NURSING

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Abstract: This article describes nursing education in Slovenia as it is presently practiced, aim of which is the development of the nursing profession. Continuing education and life-long learning are essential for advancing professional competence and preventing obsolescence. This article concludes with an interpretation of the importance of continuing education within nursing and its implications for professional development.

Keywords: nursing education, professionalism, Slovenia

Nursing education in Slovenia

Nursing education is the process whereby students are guided, assisted and provided with means that enable them to learn the art and science of nursing so that they can apply it to the nursing care of people who need such care (Mellish et al. 1998).

In recent decades, the educational system in Slovenia has been reformed for several times. Entering nursing is now possible at two levels of education: either by finishing a vocational secondary school and becoming a nursing assistant, or by taking a diploma-level course in nursing at the university and becoming a nurse. It is also possible to become a nursing assistant first and then to take a diploma-level course later, either fulltime or part time. The university degree program for nursing was introduced in the 1990s but implemented only for four years of intake. It is now slowly coming back “by the back door” with Bologna reform of higher education. At the academic level, higher education and academic knowledge clearly bring a paradigm shift from traditional/ritualistic care to professional care (Domajnko et al. 2010).

The nursing study program lasts three years (6 semesters), comprising 180 ECTS credits in total. The program is based on (Faculty of Health Sciences, 2010):

47. nursing services as established by EU sectoral directives,
48. strategy for the European Higher Education (Bologna Declaration),
49. Higher Education Act Regulations in the Republic of Slovenia,
50. present and anticipated demands and needs for nursing care, taking into consideration the latest professional developments,
51. past employment and experiences of nurses and related health-care professionals,
52. WHO directives on health protection and promotion (Health in the 21st Century),
53. initiatives of professional associations (International Council of Nurses – ICN, Slovenian Nursing and Midwifery Association – The Association of Nurses, Midwives and Health Technicians of Slovenia).

The Professional Higher Education Study Program Nursing graduate possesses a broad range of core skills encompassing both profession-specific and generic skills. Graduate nurses are able to provide safe and effective nursing care at all levels of health care. The diploma holder is able to work autonomously, apply the acquired theoretical knowledge, make professional decisions, report, communicate and independently acquire professional knowledge. A graduate of nursing is able to: act in compliance with professional ethical principles and values; consolidate and apply theoretical knowledge from various fields; autonomously perform nursing interventions and diagnostic/therapeutic procedures in an interdisciplinary team; integrate other natural and humanistic sciences into the profession of nursing; demonstrate adequate oral and written communication skills, also applicable in the international environment; participate in the education and training of nursing professionals and conduct research work; and independently acquire knowledge, take responsibility for and commit to life-long learning (Faculty of Health Sciences 2010).

Currently, there are eight institutions of higher education offering nursing courses in Slovenia (Ljubljana, Maribor, Izola, Jesenice, Novo mesto, Celje and Murska Sobota). In the next academic year, the college in Slovenj Gradec will start with part time nursing course, too.

College-level education of nurses begun in 1951 with a three-year program at the Nursing School in Ljubljana, which becomes the Nursing College in 1954. The curriculum has been often modified because of the changes in legislation and developments in nursing. In 1993, the school was transformed into University College of Health Care, which is a member of the University of Ljubljana. In the year 2009, the college becomes Faculty of Health Sciences. Presently, the faculty has eight departments: nursing, midwifery, physiotherapy, occupational therapy, radiological technology, sanitary engineering, orthotic engineering and prosthetic engineering.
In 1993, the College of Health Care was established in Maribor, which was transformed into University College of Health Care in 1995; the entire curriculum of the older Ljubljana school was adopted. In addition to teaching, the staff is involved in professional activities, professional development and consulting (Dornik et al. 2005). In 2007, the college becomes Faculty of Health Sciences. The College of Health Care Izola is one of the seven founding members of the University of Primorska, which was established in April 2003. The diploma program in Nursing Care started in Izola in the academic year 2002/2003. The College of Nursing Jesenice is an autonomous higher education institution founded by the Municipality of Jesenice. The school was accredited by the Council for Higher Education of the Republic of Slovenia in September 2006. The pedagogical process started in the 2007/2008 academic year with 70 full-time students and 60 part-time students. The School of Health Science in Novo mesto started its Diploma program of nursing in 2008/2009.

Master’s nursing programs in Slovenia
The first master’s program in nursing was opened to students in Slovenia in 2007 at Faculty of Health Sciences (Maribor). The first graduates of the program will enter their working environment in 2010 (Skela Savič 2009). In 2008/09, the College of Health Care Izola started a master’s program in nursing as did the College of Nursing Jesenice in 2009/10. In the next academic year, the Faculty of Health Sciences in Ljubljana will start with a full-time master’s program in nursing.

Professionalism in nursing
Professionalism incorporates attitudes representing levels of identification with and commitment to particular profession. A professional continues to be developed through a socialization process that begins with formal, entry-level education to acquire knowledge and skills. Career and work experience follow, often with the adoption of professional role model attitudes and behaviors (Castledine 1998; Rutty 1998 in: Wind 2003). Professionalisation is a process in which a group of workers, sometimes called an occupation, seek to control its own work (Friedson 1986 in: Warne et al. 2004). This has been a long-term process for the nursing professional as it has sought a position of autonomy and distance from the medical profession. Professionalism does not mean only acquisition of professional standards, prestige, and power, but the acquisition of professional control based on knowledge and ethics (Starc
Hall (1982 in Wynd 2003) developed a professional model and identified five attitudinal attributes that characterize most mature professions, such as law and medicine:

- The use of professional organizations as major referent groups.
- The belief in public service, supporting the idea that the profession is beneficial and indispensable to society.
- The autonomy that allows professionals to make their own decisions and judgments about the services they provide with the minimal pressure from external sources including employers, government legislation and regulators, other professionals and non-professionals.
- The belief in self-regulation.
- A sense of calling representing a commitment to the profession beyond economic incentives. Professionals are dedicated and devoted to their work and their clients with the high degree of idealism.

Factors that have impact on professionalisation are: tribalism, national standards and audit culture, clinical career ladder, education, clinical governance, nurse leadership, evidence-based practice and health-care practitioners (Warne et al. 2004). Two decades ago, Goodlad (1985 in Bahn 2007) indicated that the way nursing had been striving for professional status in the previous 100 years seemed to indicate an assumed beneficial social form, although many analysts do not agree, arguing that professionalisation does not rest on democratic but bureaucratic foundations, and that those professional hierarchies are strongly enmeshed with businesses and government hierarchies. The professional status of nursing often is subjected to both internal and external debate. Historians, sociologists and nurses themselves struggle to determine whether professionalism is present or absent in the occupation of nursing. Nurses have established educational and credentialing standards that move them toward a recognized profession; ground is also being gained in the political and policy arenas to enhance nurses’ participation in decisions about national health care. The rapidly shifting focus on health care to a more business-oriented model provides an environment in which the need for nursing professionalism is greater than any time in its previous history (Wynd 2003).

Professionalisation is identified as the major force determining the educational process in nursing education. It prevents progressive humanist education and reinforces traditional
rationalist education. This process continues with integration into higher education. Professionalisation must be abandoned as an occupational strategy, if an alternative educational process is to be developed in nursing education (Purdy 1994). The aim of nursing education is the development of the nursing profession. One way to promote development is to clarify the professional role. The role definition for nursing is mostly transmitted through tacit knowledge (Olsson et al. 1991).

The process of education to the point of registration once in a lifetime does not equip nurses for life-long careers and as response to chance, nurses need to continue learning to adapt to new ways of functioning to maintain effective and safe nursing practice. If practicing nurses stopped learning, they would not be able to adapt to new demands from the public they serve (Bahn 2007). The aim of post-registered education involves the development and enhancement of vocational skills underpinned with higher levels of academic knowledge that will enable individuals to incorporate the science and the art of nursing. The minimum level of nursing education for qualifying nurses is at the diploma level (Bahn 2007). Society is beginning to value advance practice nurses as autonomous decision makers in health care. In addition, nurse researchers are asserting a stronger base for knowledge and practice (Wynd 2003).

The transfer of nursing education to the higher education sector in the UK and Australia was driven by the nursing profession. In the early 1980s, there was concern for the future of nursing education regarding the status and effectiveness of apprenticeship-style nurse training. This style of training was seen as outdated, ill-equipping nurse trainees for the demands of rapidly changing and expanding health care systems as well as lowering the morale of nurse trainees due to the conflicting educational and service demands being placed upon them. This type of training was seen as providing lower professional status in comparison to some other non-medical health-care professions (whose training was conducted in the university) and to be contributing to student recruitment and retention problems (Francis et al. 1999).

**Nursing professionalism in Slovenia**

Essential to nursing professionalism in Slovenia is the integration of professional autonomy based on theoretical knowledge, holistic care planning, and the encouragement of patients’ decision making in the healthcare process (Starc 2009). In Slovenia, a large proportion of
teaching staff in nursing education has been physicians, although their share is now decreasing (Domajnko et al. 2010).

The reason nursing as profession is poorly developed in Slovenia has many facets. First, there is the issue of virtually non-existent vertical-axis education. Nurses in Slovenia must get over the period of self exploration and perceiving their profession, their role in society, the need for education, and the means of education. Nurses must realize that a master’s degree or a doctorate do not necessarily translate into work that does not include patient care or a new employment position, but simply provides more knowledge, which will help them conduct higher quality nursing services at their existing position of employment and in their clinical environment (Skela Savič 2009).

Domajnko and Pahor (2010) discovered in their research that the mistrust of the academic nurse on the part of some nursing assistants is a barrier to the full professionalisation of nursing as well as to inter-professional collaboration in the health care sector. Researchers inquired whether nurses were victims of their own anti-intellectualism as well, as the ways in which anti-academic attitudes become a part of nursing assistants’ understanding of their basic practice. To avoid blaming the victim, it is necessary to embed the interpretation in the wider socio-historical context. Nurses and nursing assistants developed their professional subculture in a not-always friendly environment, where conflicts with other important actors of health care were often suppressed and transported to the intra-professional level. Higher education and engaging in research promote posing questions, stimulate thinking and reflective practice. Educated nurses are less prone to accept a subordinate role in health care. As such, they are perceived as potentially challenging the established status quo, which makes the presented “educational” issue not so much issue of knowledge and evidence-based practice but rather an issue of power.

**Conclusion**

Nursing education in Slovenia is moving to a higher level. That is an opportunity to improve nursing professionalism in Slovenia. Nurses with more knowledge are more satisfied with their work and it is well known that is higher levels of nursing education correlates with better patient safety. The next important step is good support for education from managers and government.
References

INCIDENCE OF ACUTE CONFUSION IN PATIENTS AFTER ABDOMINAL SURGERY

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Abstract

Introduction: The early and correct detection of acute confusion by nurses is essential for managing complications and providing quality nursing care.

Objective: Diagnosis of acute confusion by nurses using the CAM, NEECHAM and SMMSE standardized scales in postoperative patients in the conditions of the Slovak Republic.

Methodology: The sample included n = 111 intentionally selected patients aged 65 years and older after abdominal surgeries who were assessed repeatedly (on the 1st, 4th and 7th day) during acute confusion. We used the interview and observation to administer CAM, NEECHAM and SMMSE. We used the Student's t-test for two independent samples and ANOVA for three and more independent samples.

Results: Based on the results, we found the significant differences at the p < 0.05 level in the CAM, NEECHAM and SMMSE scales in the groups of patients by the diagnoses of abdominal surgeries and in NEECHAM by the age groups. The significant differences were not found between males and females.

Conclusion: We come to conclusion that the Slovak versions of the CAM, NEECHAM and SMMSE scales are adequate tools to assess acute confusion by nurses in surgical nursing after abdominal surgeries. This verification completes the previous evidences in the conditions of clinical nursing in the world and in our country.

Introduction

Nursing process regards acute confusion as frequent neuropsychiatric complication in hospitalized elderly persons. It is characterised by sudden onset, and threatens patient with many complications [Wakefield et. al. 2001; Inouye et al. 2007; Lemiengre et al. 2006]. The term „acute confusion“ according to North American Nursing Diagnosis Association International Taxonomy II. (NANDA-I) is used in nursing since 1994 [Herdman et al. 2009]. The term „delirium“ according to International Statistical Classification of Diseases and Related Health Problems (ICD-10) and Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) is used in medicine. There was not an agreement between the characteristics of
NANDA-I and DSM-IV in previous NANDA-I editions as it is for the years 2009-2011. Brien (2002), Hegyi, Krajčík, (2004), Olin et al. (2005), Fricchione et al. (2008), Sániová, Drobný, (2009), Hattori (2009) advocate that delirium is a frequent complication after surgery, it is typical for immediate postoperative period and may be the general anaesthesia side effect. Risk factors for the development of delirium include pre-existing dementia, abruptly discontinuing a drug or fluid and electrolyte imbalance, postoperative hypoperfusion with hypoxemia and hypoxia. It develops usually between postoperative days 2 and 7 in fluctuating course. More authors cite that the incidence of delirium in postoperative patients ranges from 10% to 51% Wise et al. (2002), 15-53 % Demeure, Fain (2006), 15-50 % Inouye et al. (1999) in elderly postoperative patients, it is higher after cardiac surgery and hip fracture 40-60 % Marcantonio et al. (2002). Delirium prolongs hospital stay and increases mortality. Risk factors for postoperative delirium include advanced age, duration of general anaesthesia and previous brain diseases. Therefore is one day surgery for elderly persons recommended. Symptoms of postoperative delirium manifest some inner process happening in organism and it occurs as a result of another primary action. These different situations have one common consequence „cascade of actions“that we term as system’s inflammatory reaction. To prevent the development of this reaction can help to avoid the development of postoperative delirium [Hála, Ševčík, 2009].

The objective of the research was to assess the incidence of acute confusion in postoperative patients. We have assumed higher level of acute confusion in men than in women, existence of positive relationship between acute confusion inception in postoperative patients and the age and the differences between the diagnoses of abdominal disease in individual measurement scales of acute confusion.

**Material and methods**

The research sample n = 111 patients (n=75/67.57 % women, n=36/32.43 % men) 65 years old and older (in the range 65-85 years, mean 77.93) intentionally selected patients with confirmed diagnosis of acute confusion during hospital stay undergoing abdominal surgery. For research purposes we divided patients into three age groups: 1st group 65-75 years old, 2nd group 76-80 years old, 3rd group 81-85 years old. At the time of the research there were 111 (10.24%) delirious patients from the total number of 1084 hospitalized patients. Delirium/acute confusion was consulted with a psychiatrist or attending physician and the assessment of defining characteristics was done by a nurse according to NANDA-I. The
research was carried out from 1st November 2009 to 1st November 2010 in Teaching Hospital in Nitra on the surgical clinic. Defining Characteristics Acute Confusion according to NANDA-I for a nurse: 1. Fluctuation in cognition. 2. Fluctuation in level of consciousness. 3. Fluctuation in psychomotor activity. 4. Hallucinations. 5. Increased agitation. 6. Increased restlessness. 7. Lack of motivation to follow through with goal-directed behavior. 8. Lack of motivation to follow through with purposeful behavior. 9. Lack of motivation to initiate goal-directed behavior. 10. Lack of motivation to initiate purposeful behavior. 11. Misperceptions [Herdman, 2009].

Classifying criterion for patients:
17. Demographic data (age 65 years and older, gender – men, women).
18. Minimum primary education and Slovak speaking.
19. Medical diagnosis (according to ICD-10): Appendicitis (K35), Cholelithiasis (K80), Ileus (K56), Hernia inguinalis (K40), Stomach Ulcer (K25), Colorectal cancer (C18).

Elimination criterion for patients:
8. Delirium tremens 2. Hospital stay shorter than 48 hours. 3. Aphasia, blindness, deafness and motor skills impairment.

Methods
Observation and interview were used for administration of standardized CAM, NEECHAM and SMMSE scales. The tools were linguistically validated (translation from the English original by two independent interpreters and two backward translations into Slovak, published by Vöröslová et al. (2005, 2011). The nurses from selected workplaces were trained in administering the scales and took down into formalized records. Content analysis of medical documentation was another method used for obtaining relevant data. Statistic methods: Student's t-test for two independent samples, ANOVA for three and more independent samples

Characteristic of measurement tools:
1. Diagnostic algorithm CAM (Confusion Assessment Method) may be described as gold standard for delirium assessment [Inouye et al., 1990]. According to Inouye et al. (1990) CAM was validated for gerontopsychiatric diagnoses with sensitivity of 94-100 %, specificity of 90-95 %. Milisen et al. (2005) cite predictive positive rate of 91-94 %, negative rate of 90-100 % and high inter-raters reliability. It consists of four basic features: 1. acute change or fluctuating course of mental status; 2. inattention; 3. disorganized thinking; 4. altered level of consciousness. The diagnosis of delirium by CAM requires the presence of positive features 1
and 2 and either 3 or 4, assessment 1 = positive (yes), 0 = negative (no) (Inouye et al. 1990). Hegyi, Krajčík (2004), Vörösová et al. (2005) point out CAM in Slovak conditions, and Czech authors Bednařík (2006) and Topinková (2004) cite that CAM is widely used, quoted, and by research proved diagnostic test for delirium assessment abroad. The tool can be administered in 5 minutes. Zou et al. (1998) found, that the diagnoses delirium made by psychiatrist has lower sensitivity (73 vs. 89 %) and specificity (93 vs. 100 %) in comparison with the diagnoses made by the CAM. CAM is recommended as the best diagnostic test [Leentjensom 2005, Hestermannom et al. 2009]. In comparison with formal criteria DSM-III., DSM-III-R, DSM-IV and ICD-10 CAM validity is not so high 0.81-0.86 and specificity is lower 0.63-0.84 [Laurila et al. 2002]. CAM validity depends on level of training and professionalism of examiner, physicians had higher sensitivity than nurses 1.0 vs. 0.13 [Rolfson et al. 1999].

2. NEECHAM scale was beside the authors Neelon, Champagne et al. (1996) (abbreviation from authors’ names NEELON a CHAMPAGNE) psychometrically tested in more nursing conditions e.g. Sweden [Johansson et al. 2002], Japanese [Reika 2005, Hattori et al. 2009], Belgian [Milisen et al 2005; Van Rompaey et al. 2008], Dutch [Gemert, Schuurmans 2007] etc. NEECHAM scale has three levels: 1st level (score ranges 0-14 points) assesses processing in area: Attention (Attention-Alertness-Responsiveness); Command (Recognition-Interpretation-Action); Orientation (Orientation-Short-term Memory, Thought/Speech Content). 2nd level (score ranges 0-10 points) assesses behavior (Appearance-Motor-Verbal). 3rd level (score ranges 0-6 points) assesses Physiologic Control (Vital Function Stability, O2 Saturation Stability and Urinary Continence Control). The scale was developed for nurses as a standardized tool for acute confusion assessment. It shows good inner consistency Cronbach's$\alpha$ = 0.85-0.90 [Neelon et al. 1989, 1996], administration takes 5 minutes. Other verifier [Csokasy 1999] quote Cronbach's$\alpha$ = 0.81 [Johansson et al. 2002] prior to surgery 0.73 after surgery 0.82. Flemish translation [Milisen et al. 2005] quotes reliability alpha coefficient (0.88), diagnostic values: sensitivity 76.9 %, specificity 64.6 %, negative predictive value 97.5 %, positive predictive value 13.5 % and accuracy 65.5 %. NEECHAM method was recommended for significant connection with key clinical indicators of acute confusion development [Neelon et al. 1989, 1996]. Bednařík (2006) points out NEECHAM in Czech and Vörösová (2005, 2011) in Slovak conditions.
3. Olin et al. (2005), Milisen et al. (2005), Foreman, Vermeersch (2004); Schuurmans et al. (2003) introduce MMSE (Mini-Mental State Examination) as a tool for routine, systematic, and complex assessment of changes in cognitive function in patients with delirium. Vajdičková and Kolibáš (2000) have modified the adopted version from Molloy et al. (1991) SMMSE (Standardized Mini-Mental State Examination) for Slovak conditions. Foreign nursing literary sources describe SMMSE as a tool for assessment of cognitive functions in a senior [Hurley, Volicer, 2006]. The modification by Molloy, Amelay, Roberts, (1991) contains questions/tasks focusing on: orientation, short-term recall, attention and calculation, recall and higher cognitive functions (language, communication, and structural skills). Intrarater variance was lower by 86 % and inter-rater variance by 76 % in all instances with the SMMSE compared with the MMSE. The intraclass correlation coefficient was 0.69 for the MMSE and 0.90 for the SMMSE. Score ranges from 0 to 30, MMSE administration takes 13.39, SMMSE administration takes 10.47 minutes [Molloy, Standish 1997].

Introduced empirical tools were applied for assessment of defining characteristics of nursing diagnoses acute confusion. Patients were assessed repeatedly, on the 1st, 4th and 7th day of confusion to enable nurses to notice progress and occurrence of defining characteristics. On agreed criteria the first measurement was carried out within 24 hours since the first occurrence of minimal one of the defining characteristics. Acute confusion was defined as score for CAM=positive (1), NEECHAM< 25, and SMMSE< 24. Before the observation it was agreed which outcomes will be the last measurement CAM = negative (0), NEECHAM > 24, SMMSE limit was not set because the values are adapted slowly especially in patients with functional brain damage.

**Results**

Based on results and analysis of test measurements using Student's t-test we found, that there are not significant differences between genders (SMMSE women 0.43-25.03 men 0.50-23.89; CAM women 3.15-0.00, men 2.97-0.00; NEECHAM women 12.03-27.56, men 12.00-27.11). Statistically significant differences were considering the age in SMMSE, and NEECHAM scales. According to medical diagnoses significant differences were evident in SMMSE, CAM and NEECHAM. Table 1 shows significant results of selected indicators.

| Table 1. Comparison of selected indicators at the p<0.05 level n=111 patients |
| Scale/day | n | 1. | 4. | 7. |
| SMMSE | AM/SD | F | p | AM/SD | F | p | AM/SD | F | p |
| 1.gr (65-75) | 19 | 19.78/3.78 | 9.350 | 0.001 |
| 2.gr (76-80) | 49 | 19.06/4.33 |
| 3.gr (81-85) | 43 | 15.19/5.74 |
### Discussion

We assumed higher level of acute confusion in men in comparison with women; statistical analyses did not confirm our assumption. Schor et al. (1992), Wakefield et al. (2001) mention male gender as a risk factor for acute confusion. Patients over 65 years are at the highest risk for developing acute confusion by Culp (2002); Inouye et al. (2003, 2005); Topinková (2004); Olin et al. (2005); Hegyi, Krajčík (2004); Jirák (2004); Culp et al. (2004); Zmeková (2003, 2004); Hanísková, Krajčík (2006); etc. According to patients classification into three age groups we did not notice any significant differences in CAM scale. Significant differences arose in SMMSE cognitive function test in 4th measurement. Cognitive decline is not only predisposing factor of acute confusion, but it was confirmed, that delirium aggravates cognitive functions [Milisen et al. 2001; Olin et al. 2005; Bednařík, 2006]. The highest value reached 1st group (65-75 years old) vs. the lowest value in 3rd group (81-85 years old). Metaanalyses in more than 100 studies identified the age over 80 years as an independent risk factor for delirium [Topinková, 2004]. In general, acute confusion (delirium) is a phenomenon in the elderly, although it may occur at any age. As a predisposing factor except of the age over 65 years is brain damage of multifactorial etiology, mainly somatic cause and situation factor. While acute confusion assessing in patients with abdominal diseases using SMMSE, CAM, and NEECHAM scales we recorded significant differences (tab.1). Wakefield et al. (2001), O’Brien (2002), Zmeková (2003), Jirák (2004), Topinková (2004), Fricchione (2008)
cite that in patients with psychotoxic effects of general anaesthesia, along with physical and psychical distress, pain, permanent catheter, and immobility, the percentage of acute confusion occurrence is higher, but its development is slower, and milder, therefore it is undetected and undiagnosed. An important role plays age, related factor and particularly physicians’ and nurses’ interventions so called proactive geriatric regime that shorten the duration of delirium [Topinková, 2004]. Greater effect was reached by this approach at surgical departments than internal departments [Topinková, 2004]. It is important to diagnose acute confusion soon enough. Our expectations have been met, with the acute confusion decline, CAM values were decreasing and SMMSE and NEECHAM total score values were rising. From n = 111 (100 %) acute confused patients hospitalized on surgical clinic while they were observed, acute confusion occurred most often in patients with diagnose K 56 (33.3 %) vs. diagnoses K 80 (28.86 %), C 18 (24.42 %), K 40 (18.87 %), K 25 (8.88 %), K 35 (8.88 %). Acute confusion took at average 4 days (1-7). Delirium takes at average 3.4 days [Ely et al., 2001], 1-3 days and delirium occurrence prolongs hospital stay in 4 days [Olin et al. 2005]. Standard assessment for acute confusion by physicians and nurses is very important [Ski, O’Connell, 2006]. CAM scale may be used not only by psychiatrist, but by nursing staff as well. CAM is gold standard, algorithm for acute confusion/delirium assessment [McNicoll et al. 2005, Inouye et al. 2005, Pun et al. 2005, Milisen et al. 2005, Ski, O’Connell 2006]. Our basis were experiences and research results achieved by Cole et al. (2002), Inouye et al. (2003), Schuurmans et al. (2003), Gonzalez et al. (2004), McCusker et al. (2004), Olin et al. (2005), Hattori et al. (2009) and many others in conditions of intensive care units, internal, surgical, geriatric workplaces. The authors of mentioned studies used DSM-IV criteria for acute confusion/delirium assessment that are comparable with defining characteristics of acute confusion in NANDA-International Taxonomy II. CAM, NEECHAM and SMMSE criteria, questions and tasks were projected into defining characteristics of nursing diagnosis „acute confusion 00128“NANDA-I.

Conclusion
We have applied tried method of acute confusion assessment used in other nursing systems worldwide. This study contributes to the importance of postoperative acute confusion diagnosing, because of negative impact on postoperative status in 10 % of seniors. Significant differences were shown according to the patients’ classification into age groups and
diagnoses. Results confirm that early acute confusion diagnosing by a nurse significantly contributes to the progress of postoperative period, and it reduces length of hospital stay.

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INTRODUCTION

Patient safety is a central issue in healthcare \(^{(1, 2)}\). For years, experts have recognized that medical errors exist and compromise health care quality, but the response to the 30 November, 1999, release of the Institute of Medicine’s (IOM) report, “To Err is Human: Building a Safer Health System”, brought medical errors to the forefront of public attention \(^{(3)}\). In March 2001, the second IOM report, “Crossing the Quality Chasm: A New Health System for the 21st Century”, was published \(^{(4)}\).

The IOM has suggested that safety is a systems property, and that achieving safety requires a team effort. Nurses clearly represent a key part of the health care team, especially in the hospital \(^{(5, 6)}\). Because nurses care for their patients around the clock in hospitals, they see themselves as primarily responsible for their patient’s well-being and the main role they play in the health care team is to serve as a key guardian of patient safety \(^{(6, 7)}\).

What is a nursing error? A nursing error is defined as a discipline-specific term that encompasses an unintended ‘mishap’ (e.g. involving slips, lapses, misjudgements, etc.) made by a nurse and where a nurse (as opposed to some other health care professional) is the one who is situated at the ‘sharp end’ of an event that adversely affected a patient’s safety and quality care \(^{(7)}\).

The ICN also has a position statement on safety adopted in 2002 \(^{(8)}\). ICN believes nurses and national nurses associations have a responsibility to:

88. Inform patients and families of potential risks.
89. Report adverse events to the appropriate authorities promptly.
90. Take an active role in assessing the safety and quality of care.
91. Lobby for standardized treatment policies and protocols that minimise errors.

These responsibilities are available to all nurses when needing support in situations where safety is an issue.
All nurses who have practised nursing have made a mistake at some time during their career. Even so, there are no precise figures on the incidence and impact of nursing errors in health care \(^7\). Therefore, this study was an attempt to determine nurses’ tendency of malpractice in Turkey.

**AIM**

This research was carried out as a descriptive study in order to determine nurses’ tendency of malpractice in Turkey.

**METHOD AND MATERIAL**

Seventy eight nurses who are working in a randomly selected hospital from five hospitals in Giresun city centre were involved in the study. During data collection ‘Information Form for Nurses’ and ‘Malpractice Tendency Scale’ were used. ‘Malpractice Tendency Scale’ developed by Altunkan to determine nurses’ tendency of malpractice in 2009 in Turkey. The scale consists of 55 items. Subtitles as drug applications and transfusion, falls, nosocomial infections, patient monitoring/security of materials and communication were included in Malpractice Tendency Scale. Cronbach’s alpha value of the scale is 0.95. As participant answering the items she responds by marking one of the choices as; 1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5-Always. The increase in the total point indicates that nurses’ tendency of making a medical error is lower. Statistical Package for Social Sciences (SPSS) for windows version 12.0 was used for data entry and analysis. The data were evaluated using the percentage distribution and mean. Prior research, written approval from the institution and verbal contents from the nurses were obtained.
RESULTS

Table 1. Socio-Demographic Characteristics of Nurses

<table>
<thead>
<tr>
<th>Socio-Demographic Characteristics of Nurses</th>
<th>n</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Marital Status</td>
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<tr>
<td>Single</td>
<td>42</td>
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<tr>
<td>Married</td>
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<td>Education</td>
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<td>Nursing College</td>
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<td>50</td>
</tr>
<tr>
<td>Associate</td>
<td>19</td>
<td>24.4</td>
</tr>
<tr>
<td>Bachelor</td>
<td>20</td>
<td>25.6</td>
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<tr>
<td>Working years in the profession</td>
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<td></td>
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<tr>
<td>1-5 years</td>
<td>57</td>
<td>63.1</td>
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<tr>
<td>6-10 years</td>
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<td>11.5</td>
</tr>
<tr>
<td>11 years and over</td>
<td>12</td>
<td>15.4</td>
</tr>
<tr>
<td>Shift type</td>
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<tr>
<td>Day Shift</td>
<td>17</td>
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<td>Night Shift</td>
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<td>6.4</td>
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<tr>
<td>Day-Night Shift</td>
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<td>71.8</td>
</tr>
<tr>
<td>Clinics worked</td>
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<td></td>
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<tr>
<td>Surgical clinics</td>
<td>14</td>
<td>18</td>
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<tr>
<td>Medical clinics</td>
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<td>42.3</td>
</tr>
<tr>
<td>Gynaecology-Pediatry Intensive care unit</td>
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<tr>
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<td>9</td>
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<tr>
<td>Total</td>
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<td>100</td>
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Table 2. Workload of Nurses

<table>
<thead>
<tr>
<th>Workload of Nurses</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working hours per week</td>
<td>53.6 ± 7.91</td>
</tr>
<tr>
<td>Total shift per month</td>
<td>6.6 ± 3.88</td>
</tr>
<tr>
<td>Total patients cared in a day</td>
<td>11.6 ± 9.30</td>
</tr>
</tbody>
</table>

Nurses’ satisfaction level is $3.3 ± 1.27$. When the nurses’ satisfaction level in their profession and subtitles of the scale are compared, there is statistically a positive correlation between nurses’ satisfaction level and ‘Drug Applications and Transfusion’ ($r = 0.225$, $p< 0.05$). As nurses’ satisfaction level are higher, the mean of subtitle entitled ‘Drug Applications and Transfusion’ also increases. It indicates that nurses act with caution in drug applications and...
transfusion. But the difference is not statistically significant in other subtitles entitled ‘Patient Falls’, ‘Nosocomial Infections’, ‘Patient Monitoring and Security of Materials’, ‘Communication’ (p>0.05).

It is found that the difference is not statistically significant between nurses’ satisfaction level and working years in their profession (p>0.05). It is also found no statistical difference between working years in the profession and subtitles of the scale (p>0.05).

Table 3. Mean Malpractice Scores of the Nurses

<table>
<thead>
<tr>
<th>Subtitles</th>
<th>Mean ± SD</th>
<th>Items received the highest score from subtitles</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug applications and Transfusion</td>
<td>87.6 ± 3.87</td>
<td>I pay attention for giving the patient the correct fluid</td>
<td>4.98 ± 0.11</td>
</tr>
<tr>
<td>Patient Falls</td>
<td>22.6 ± 1.98</td>
<td>I provide the necessary support and assistance when the patient ambulates</td>
<td>4.70 ± 0.45</td>
</tr>
<tr>
<td>Nosocomial infections</td>
<td>57.2 ± 3.79</td>
<td>I pay attention to not contaminate the preparation and implementation of infused fluids</td>
<td>4.85 ± 0.44</td>
</tr>
<tr>
<td>Patient monitoring and Security of materials</td>
<td>41.5 ± 3.41</td>
<td>I do frequency of patient monitoring as specified in doctor order</td>
<td>4.83 ± 0.37</td>
</tr>
<tr>
<td>Communication</td>
<td>22.8 ± 2.23</td>
<td>I document all the information related to patient’s treatment and care in nursing form</td>
<td>4.78 ± 0.41</td>
</tr>
</tbody>
</table>

CONCLUSION

According to the findings acquired from ‘Malpractice Tendency Scale’ it has been determined:

54. Nurses’ working hours per week are too much and their satisfaction level in the profession is moderate


PROPOSALS

Including nurses in decision-making teams can change the culture of safety and how errors are perceived by nursing staff.
REFERENCES

LIFE QUALITY OF PATIENTS WITH DEPRESSION

Dana Zrubcová

Faculty of Social Sciences and Health Care, Department of Nursing, Constantine the Philosopher University in Nitra, Slovakia

Abstract
The quality of life is judged like a multidimensional quantity. It includes physical health, mental condition, social use, religious and economic aspects. Like an individual he subjectively judges the quality of life, even reflects the real welfare, circumstances and social relationships, where he lives his life. In work we have focused on issues of patients quality of life with depression, comparing to persons’ quality of life without diagnosed depressive disorder. To obtain the data we used a standardized questionnaire WHOQOL – Bref. For processing results we used Student’s t-test. The research was done on the months of May 2010 to January 2011. Research was attended by $n = 120$ respondents; $n_1 = 60$ with diagnosed depressive disorder and $n_2 = 60$ without depressive disorder. Significantly lower assessment of quality of life we have seen in the responses relating to physical health, mental living through, social relationships and environmental area in respondents with depressive illness.

Introduction
Quality of life as a dynamically changing situation affects the complex of clinical, social and personal factors. It’s support has become one of the objectives and therapeutic nursing interventions. Health care is now focused on the patient like an individualism, which affects the setting of a target and the choice of means to him seeking. A holistic approach sees the patient as a bio - psycho - social being, which places the subjective criteria with objective. It is also expressed by the newer term of quality of life, which is now found in the literature more often (Ondrejka, Adamicová 2008). Nowadays, there are whole series of definitions of quality of life. But they have one thing in common, the term "quality of life" should include data about physical, mental and social status of the individual. Quality of life is viewed as multidimensional quantity. Carp and Carpová (In: Džuka a Dalbert, 1997) defines welfare as a subjective judgments about the overall life satisfaction, which is reflected in the extent to which person is flourished to meet the existential needs (physical needs and the need for security) and needs a higher order (fellowship, self-actualization). World Health Organization (WHO) in it’s questionnaire intended to assess the quality of life is presented as a major social, physical, psychological, and environmental domain. Grob et al. (1991) is seen as the main aspects of life satisfaction degree of feeling of physical or mental difficulties, self-valuation, depression tuning. It is clear that concepts such as comfort or quality of life are characterized by high notions of subjectivity and also involve the whole complex of objective variables of different characteristic. It means that it doesn’t include just physical health and feeling the absence of disease symptoms or treatment, but also the view of global mental condition, the application of social, religious and economic aspects, etc. Other factors affecting quality of life include age, gender, polymorbidity, family situation, the preferred values, economic situation, education, religiosity, cultural background and so on. The overall quality of life is the sum of the above factors. (Slovacek et al., 2004). Quality of life becomes one of the objective indicators of successful therapeutic interventions in medicine and nursing. Current trends in the evaluation of nursing care characterizes a division from a focus on disease to an emphasis
on patient from extending life to improving his quality from objective to subjective variables, such as the category of quality of life. Subjective perception of quality of life implicitly includes real life conditions, circumstances and social relationships in which man, an individual lives their life. Social circumstances and conditions of their use permit or limit human happiness and satisfaction. Individual level of quality of life can be affected only by an individual approach, which is the result of a process of introspection, which examines and evaluates the individual's own ideas and aspirations, the extent of their implementation with the implementation rate of the rest of society (Tokarova, 2002). The relation of quality of life and depression are strongly linked together as indicated by many researches in this field. The research of depressive syndrome among seniors (Holmerova et al., 2006) indicates that the presence of depression significantly affects quality of life in a negative regard. Statistically significant relationship was also confirmed by research examining quality of life in patients with depression in primary care. His results show, that depressive disorder and anxiety disorders are common, they may lead to significant suffering, loss of opportunities, to significant economic losses (Farvoldenet al 2003).

**Material and methods**

The subject of research was the issue of quality of patients’ life with depression, deficit areas, social isolation in comparation with the quality of life of persons without chronic mental illness.

**H: We assume, that the quality of life rated by respondents with diagnosed depressive illness is lower than respondents without depressive illness.**

The basic population research group were patients affected by depression and healthy human population. The first research sample consisted of 60 respondents with diagnosed depressive illness in a psychiatric clinic ambulance (n1 = 60) and a second sample of 60 randomly selected respondents of the general population (n2 = 60).

**File n1, classifying criteria:**

88. Diagnosed depressive illness in at least one year,
89. regular outpatient psychiatric clinic visit,
90. age 18 to 65 years,
91. willingness to cooperate.

**File n2, classifying criteria:**

92. population without depressive illness,
93. age 18 to 65 years,
94. willingness to cooperate.

We also used a standardized questionnaire WHO „Quality of Life“ (WHOQOL-BREF /1996). 26-item scale includes the perception of aspects of everyday life. Respondent judges the level of their own beliefs with 5 grade ordinal scale. Margin score ranges from + 26 (representing the lowest quality of life) to +130 (representing the highest quality of life). To monitor the differences between both the groups we chose for testing the criterion Student's t-test in the STATISTICA Cz. v. 6., STATGRAPHICS centurion v. XV applications. For testing we used α = 0.05 level. The research was done in May 2010 to January 2011.
Results

Tab. 1 Gender of the respondents

<table>
<thead>
<tr>
<th>gender</th>
<th>file n1</th>
<th>file n2</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>male</td>
<td>25</td>
<td>41.7</td>
<td>35</td>
</tr>
<tr>
<td>female</td>
<td>35</td>
<td>58.3</td>
<td>38</td>
</tr>
</tbody>
</table>

Tab. 2 Age of the respondents

<table>
<thead>
<tr>
<th>age</th>
<th>file n1</th>
<th>file n2</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>18-29</td>
<td>5</td>
<td>8.33</td>
<td>3</td>
</tr>
<tr>
<td>30-39</td>
<td>20</td>
<td>33.33</td>
<td>26</td>
</tr>
<tr>
<td>40-49</td>
<td>23</td>
<td>38.32</td>
<td>18</td>
</tr>
<tr>
<td>50-59</td>
<td>9</td>
<td>15.01</td>
<td>11</td>
</tr>
<tr>
<td>60-65</td>
<td>3</td>
<td>5.01</td>
<td>2</td>
</tr>
<tr>
<td>total</td>
<td>60</td>
<td>100</td>
<td>60</td>
</tr>
</tbody>
</table>

Tab. 3. Comparison of responses of respondents diagnosed with depressive illness – a file of n1 and without diagnosed depressive illness n2

<table>
<thead>
<tr>
<th></th>
<th>How would you rate your quality of life?</th>
</tr>
</thead>
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</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>How satisfied are you with your health?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>To what extent do you feel that physical pain prevents you from doing what you need to do?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>How much do you need any medical treatment to function in your daily life?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Question</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>How much do you enjoy life??</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>6</td>
<td>To what extent do you feel your life to be meaningful?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>7</td>
<td>How well are you able to concentrate?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td>8</td>
<td>How safe do you feel in your daily life?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>9</td>
<td>How healthy is your physical environment?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>10</td>
<td>Do you have enough energy for everyday life?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>11</td>
<td>Are you able to accept your bodily appearance?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>12</td>
<td>Have you enough money to meet your needs?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>13</td>
<td>How available to you is the information that you need in your day-to-day life?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>14</td>
<td>To what extent do you have the opportunity for leisure activities?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>15</td>
<td>How well are you able to get around?</td>
</tr>
<tr>
<td></td>
<td>file n1</td>
</tr>
<tr>
<td></td>
<td>file n2</td>
</tr>
<tr>
<td>16</td>
<td>How satisfied are you with your</td>
</tr>
<tr>
<td>17</td>
<td>How satisfied are you with your ability to perform your daily living activities?</td>
</tr>
<tr>
<td>----</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3</td>
<td>2.49</td>
</tr>
<tr>
<td>4</td>
<td>3.70</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>18</th>
<th>How satisfied are you with your capacity for work?</th>
<th>AM</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2.87</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3.75</td>
<td>1.05</td>
<td>-3.947</td>
<td>&lt;0.001</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>19</th>
<th>How satisfied are you with yourself?</th>
<th>AM</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2.60</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3.26</td>
<td>0.87</td>
<td>-3.395</td>
<td>0.001</td>
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<table>
<thead>
<tr>
<th>20</th>
<th>How satisfied are you with your personal relationships?</th>
<th>AM</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2.95</td>
<td>1.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3.72</td>
<td>0.84</td>
<td>-3.307</td>
<td>0.001</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>21</th>
<th>How satisfied are you with your sex life?</th>
<th>AM</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2.85</td>
<td>0.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3.63</td>
<td>1.03</td>
<td>-4.226</td>
<td>&lt;0.001</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>22</th>
<th>How satisfied are you with the support you get from your friends?</th>
<th>AM</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2.98</td>
<td>1.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4.09</td>
<td>0.72</td>
<td>-5.704</td>
<td>&lt;0.001</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>23</th>
<th>How satisfied are you with the conditions of your living place?</th>
<th>AM</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3.30</td>
<td>0.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3.61</td>
<td>1.01</td>
<td>-1.269</td>
<td>0.208</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>24</th>
<th>How satisfied are you with your access to health services?</th>
<th>AM</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3.09</td>
<td>1.39</td>
<td>4.947</td>
<td>&lt;0.001</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>25</th>
<th>How satisfied are you with your transport?</th>
<th>AM</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3.47</td>
<td>1.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3.52</td>
<td>1.15</td>
<td>-0.102</td>
<td>0.919</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>26</th>
<th>How often do you have negative feelings such as blue mood, despair, anxiety, depression?</th>
<th>AM</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3.80</td>
<td>1.01</td>
<td></td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>2</td>
<td>1.59</td>
<td>0.67</td>
<td>11.129</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
On the basis of a fixed of t value Student t-test for two independent choices \( t = -8.656 \) and placed on it's signification \( (p = 0.001) \) we state, that the average total score representing the quality of life, was among respondents diagnosed with depression significantly lower than among respondents without depressive illness.

**Discussion**

Health presents to individuals and their families immeasurable value. Any improvement, similarly like the distortion has its social importance. As Rovný et al. (1995) stated in it can be seen as a time status, but also as a process that has momentum. There are often differences in perception of health, which may vary due to past experience, expectations of himself, self-identity, self-reflection and social status. By examining the issue of whether depressive disorder affects the quality of life of respondents diagnosed with depression in the balance with a population without diagnosed depressive illness, we have come to similar findings as Holmerová et al. (2006); Farvolden et al. (2003) who argue that depressive disorder determines the evaluation of quality of life. Patients with depressive illness show lower levels of satisfaction. Respondents diagnosed with depression rated their quality of life lower than those of respondents without depressive illness \( (p = 0.001) \) in responses were significant differences. Depression also affects physical health. Even the stress from chronic illness may cause depressed mood. In our research, respondents without depressive illness expressed satisfaction with their health. Respondents with depressive illness were dissatisfied with their health \( (p = 0.001) \), in responses were significant differences. Charlton et al., (In : Heretik et al., 2003) describes in their study a close relationship between depression and physical illnesses. Honkanen et al. (In Ondrejka, Drimalova and Frank 2000) suggest that fatigue and lack of energy, anxiety and tension in psychiatric patients are closely associated with dissatisfaction. In the meaningfulness of life was between the replies of the respondents also a significant difference \( (p = 0.001) \). Heretik et al., (2003), Hoschl found the strongest relationship between life events (health problems, death and family problems) and the occurrence of depression. People with depressive illness typically have a reduced resistance to exposure of stressors, and that follows their negative perception of the meaningfulness of life (Praško et al, 2008). The quality of life is also determined by the options, access to public services and health care, housing and level of environmental quality and ability to manage routine activities. Our findings are consistent with research (Atkinson, Zibin and Chuang, 1997; Lehman, Ward and Linn, 1982), according to which the standard of living for mentally ill people is significantly lower than the majority population. Respondents diagnosed with depression evaluated the safety and quality of the environment, access to information and opportunities to engage in their hobby worse than the respondents without depressive illness \( (p = 0.001) \). Monitoring the quality of life appears to be an essential part of therapeutic care for patients whose illness and subsequent treatment disrupts the original social ties and values of physical and mental health. Important for assessing the quality of life are the differences between the perceptions of health and actual health (Tokarová, 2002). Quality of life of persons with depression is objectively low in many areas. We agree with the opinion of authors Bražinová, (2008); Motlová et al, (2004); Motlová, Dragomirecká, (2006); Sunegová (2008); Pullmann et al, (2007); Slováček et al., (2004); Dragomirecká, Bartoňová, (2006); Ondrejka, Mažgútová (2003), Skatze et al. (1992) that assessing the quality of life is always
determined by individual perceptions, expectations, hopes, individual satisfaction, but also by options, which are offered by the society because of their illness.

**Conclusion**

Mental disorders have recently become important because of the high prevalence and individual consequences of the disease. The quality of life is the result of the interaction of psycho-social-economic-welfare and environmental conditions, relating to human and social development. Subjective quality of life is about the good feeling, well-being and individual satisfaction. Our findings confirm that depressive illness affects quality of life in a negative view. It is therefore necessary to draw attention to the psychosocial needs of people suffering from depressive illness. We are aware that due to the small survey sample, we can not generalize the results of the entire population of patients with depressive disorder. Therefore, we understand our conclusions rather as a stimulus for further research.

**References**


Sunegová, R. 2008. Životná spokojnosť a jej zmeny. [in:] Sestra a lekár v praxi. 2008, roč. 7, č. 11-12, s. 36-37.


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Papers are uncorrected proofs and presented unchanged in version sent by authors.