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**PSYCHOSOCIAL ASPECTS OF
PROFESSIONAL QUALITY OF LIFE
OF PRACTISING NURSES' AND
FACTORS AFFECTING THEM**

Summary of the doctoral thesis

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INTRODUCTION

Health-care system in Latvia is still changing – due to various reasons the amount of employees in the medical sector is decreasing – in 2010, 3.0% nurses left their work from health-care institutions in Latvia (Keris, 2011). Currently, the reorganization of health-care establishments takes place. Nurses who work at medical institutions need to face many distress situations daily, at the same time, the medical personnel is a part of the society which is affected as much as the rest of the people by the general economic situation in the country.

Nurses often work more than one workload, and are constantly under emotional tension, physical and mental fatigue. The statistical data demonstrate that in 2010, 28.6% doctors and 26.3% nurses have been working more than the normal working hours at the hospital, overwork can negatively influence both, medical personnel, and health care of patients, because the risk of an injury increases, as well as emotional exhaustion and risks of professional errors (Keris, 2011). The European Agency for Safety and Health at Work showed in their report that next to the already examined physical, biological and chemical risk factors, more and more impact on employees` health is left by psychosocial factors (European Agency for Safety and Health at Work, 2007). The psychosocial risk factor groups which are listed – a new way of employment relationships and unsafety of the work place, outdated population of the employees, intensity of the work (enormous amounts of work and the pressure from the administration), increase in emotional tension at the work place (especially in health-care and service sectors), poor balance of work and private life (European Agency for Safety and Health at Work, 2007).

Sustained fatigue caused by work may lead to a chain of symptoms which leave negative effect on the quality of professional actions and on the

physical life of a medical person himself/herself (Aldwin, 2000, Tselebis, Moulou, & Ilias, 2001). Therefore, the typical psychosocial issues for practitioner nurses are the burnout syndrome and compassion fatigue. The burnout syndrome is mentioned as one of the main health issues concerning work among the professionals in health-care (Hochwalder, 2007).

According to the data of the Fourth European Working Conditions Survey in 2005, the research of work-related stress levels, Latvia took fourth place behind Greece, Slovenia and Sweden. In addition, the stress levels in case of Latvia have risen by 7.0% from 2001 to 2005. Health-care and social-care sectors are mentioned as risky and prone to violence and distress (OSH, 2009).

Due to compassion fatigue and burnout, nurses' work may become less productive; employees are absent due to illness, as well as the fluctuation of staff increases (Demir, Ulusoy, & Ulusoy, 2003; Najjar, Davis, Beck-Coon, & Doebbeling, 2009).

Lack of nurses in health-care is nothing new, several authors (Kravits McAllister-Black, Grant, & Kirk, 2010) consider that a high stress level and burnout are considered to be serious reasons why nurses sometimes want to change work in which the stress level is much lower. Considering that many countries of the world lack nurses, as well as the fact that the age of existing nurses in the labour market increases with years (the working population of nurses gets older), attraction of new nurses and keeping them in the profession has become a current event in the health-care sector globally (Laschinger, & Grau, 2012).

Decreasing work – related burnouts will not only positively influence the people working in the same sector, but also decrease the expenses and offer economical benefit to organizations because the work absence and illnesses, as well as the fluctuation of staff decrease (Awa, Plaumann, & Walter, 2010).

Up to now, in Latvia, there has been little research done to select nurse groups concerning the burnout syndrome, depression, anxiety, compassion fatigue and other research of psychosocial aspects associated with professional quality of life. However, an alarming fact is that the research done in Latvia revealed that health-care and social-care sector employees` self-evaluation of their operational capabilities in the last years have decreased and it is noticeably lower than other employees in the same sectors in other European countries (Buiķe, & Baķe, 2008).

The aim of the study is to investigate the professional quality of life and its psychosocial aspects and their influencing factors of practicing nurses.

To attain the goal of the research, enabling **objectives** were introduced:

1. to make an adaptation of the Professional quality of life scale among nurses sample in Latvia, as well as to clarify the average showings in the given selection,
2. to ascertain the average indicators of the burnout syndrome, depression and anxiety among the selected nurses,
3. to identify the influencing factors of the psychosocial aspects of the professional quality of life of nurses,
4. to ascertain the opinion of practitioner nurses about the necessity of supervision in nursing practice,
5. to identify the existing correlations between the psychosocial aspects of the professional quality of life of selected nurses,
6. to identify the differences of the professional quality of life aspects among the selected nurses depending on specialty, work experience, age.

Hypothesis of the study

- There exist statistically significant correlations between the psychosocial aspects of the professional life of practitioner nurses.

- There exist statistically significant differences between the indicators of the professional quality of life psychosocial aspects for nurses of various age groups, nurses with diverse work experience and professional profile.

Research question

Which are the influencing factors of professional quality of life psychosocial aspects that are considered to be the most important among the selected nurses?

Methods of research

In order to attain the objective of the research, a quantitative, non-experimental research was carried out by applying certain tools, such as: the questionnaire for nurses, Maslach Burnout Inventory, Beck Depression Inventory, The State-Trait Anxiety Inventory, The professional quality of life scale.

Scientific novelty of the dissertation

- For the first time in Latvia such a volume of selected nurses were surveyed in order to obtain the data by using five research tools concerning the question about the professional quality of life of nurses. The obtained data allow to discuss the psychosocial aspects of the professional quality of life of nurses.

- In order to get an insight about the psychosocial aspects of the professional quality of life of selected nurses within the framework of the dissertation, the professional quality of life scale was translated and adapted.

- The results of the research allow to reveal and argument the necessary preventive activities to lessen the negative influence of the professional quality of life aspects of nurses` work overall and the quality and effectiveness of the care provided.

The structure of the dissertation

The dissertation consists of abstract, list of abbreviations used in the paper, an introduction, and literature review, the practical part of the research with methodology and the results of the study, as well as discussions, conclusions, lists of publications and theses of the chosen theme in the paper. The dissertation has 44 tables, used from 101 references. The volume of the paper without appendices is 94 pages.

1 RESEARCH METHODOLOGY

1.1 Participants of the research

The participants of the research were nurses who practicing in Latvia. The convenience sample was used, while selecting participants (Pētniecības terminu skaidrojošā vārdnīca, 2011). Totally 1094 respondents took part in the study, age range from 22 till 68 years, with the average work experience in nursing 17.12 years.

1.2 Research instruments

The questionnaire for nurses. The questionnaire for nurses consisted of three parts: demographic questionnaire, survey about contributory factors in the working environment of nurses, as well as nurses opinions about clinical supervision necessity for nurses. Questions developed by author of the dissertation. Surveyed nurses were asked to choose 10 factors from 20 and rank them from 1 till 10, where the most significant is 10.

Maslach Burnout Inventory. To measure burnout we used Maslach 22 - item Burnout Inventory (MBI). It is the well-studied measurement of burnout in the literature is the Maslach Burnout Inventory. Maslach and Jackson first developed a measure that weighs the effects of emotional exhaustion, depersonalization, and reduced sense of personal accomplishment. MBI assesses emotional exhaustion, depersonalization and the lack of personal achievement (Schaufeli, & Dierendonck, 1995).

The tool developed by Christina Maslach and colleagues (Jackson, Leiter). It was used in 473 studies, and 538 dissertations from 1978. till 1996. (Schaufeli, & Enzmann, 1998).

We used the Human Services Survey variant, which was translated and adapted by Sanita Aišpure in 2002.

According to the literature data (Maslach, Jackson, & Leiter, 1996), Cronbach's alpha for subscales were (n=1316): Emotional exhaustion subscale — 0.90, depersonalization subscale — 0.79, and reduced sense of personal accomplishment subscale — 0.71.

The Beck Depression Inventory. We used Beck Depression Inventory (BDI-II), which has 2 subscales - somatic and cognitive. The Beck Depression Inventory (BDI), created by Dr. Aaron T. Beck and colleagues (Beck, Ward, Mendelson, Mock & Erbaugh), is a 21-question multiple-choice self-report inventory, one of the most widely used instruments for measuring the severity of depression. It was adapted in Latvia by S. Miežīte, S. Voitkāne (Voitkāne, 2004).

The Beck Depression Inventory Cronbach's alpha was 0.93 (Steer, Ball, Ranieri, Beck, 1999), and in Latvia' sample — 0.87 (Voitkāne, 2004).

State-Trait anxiety Inventory. State-Trait anxiety Inventory (Form Y) (Self-Evaluation Questionnaire) developed by Spielberger and colleagues (Spielberger, Gorsuch, & Lushene, 1970) was used in the study.

The State-Trait Anxiety Inventory (STAI) serves as an indicator of two types of anxiety, the state and trait anxiety, and measure the severity of the overall anxiety level. This tool was translated and adapted in Latvian by Daina Škuškovnika (Škuškovnika, 2004).

Cronbach's alpha for the original inventory (Spielberger, Reheiser, Ritterband, Sydeman, & Unger, 1995) is 0.86 (state subscale) and 0.90 (trait subscale). In Latvia's sample Cronbach's alphas were quite high from 0.83 to 0.92 (Škuškovnika, 2004).

Professional Quality of Life Scale. We used Professional Quality of Life Scale (PROQOL) R-V version developed by Beth Hudnall Stamm and Craig Higson-Smith, Amy C. Hudnall, Henry E. Stamm.

The reliability of the subscales (Cronbach's alpha): compassion satisfaction subscale — 0.88, burnout subscale — 0.75, secondary traumatic stress subscale — 0.81 (Bride, Radey, & Figley, 2007; Stamm, 2010).

Professional Quality of Life Scale: Compassion Satisfaction and Fatigue Version 5 (ProQOL R-V) developed by B. Hudnall Stamm. Scale consists of 3 subscales: Compassion Satisfaction, Burnout and Secondary Traumatic Stress (Stamm, 2010). Each subscale is unique, and the results of the scales cannot be combined to give a single meaningful score. The instrument includes 30 items, 10 in each scale, which are rated numerically on a 5-point Likert scale, ranging from 0 (never) to 5 (very often).

Higher scores on the Compassion Fatigue subscale (10 items) indicate the respondent is at higher risk for compassion fatigue. Higher scores on the Compassion Satisfaction subscale (10 items) indicate the respondent is experiencing better satisfaction with his or her ability to provide care (e.g., caregiving is an energy-enhancing experience, increased self-efficacy). Higher scores on the burnout subscale (10 items) indicate the individual is at risk of experiencing symptoms of burnout (e.g., hopelessness, helplessness) (Stamm, 2010).

The Professional Quality of Life Scale (ProQOL), is the most commonly used measure of the positive and negative effects of working with people who have experienced extremely stressful events. The ProQOL, originally developed in English, is translated into Finnish, French, German, Hebrew, Italian, Japanese, Spanish, Croat. European Portuguese and Russian translations are in process (Stamm, 2010).

For translation process we used one-way translation approach. Four translators independently made translation, and after discussion some adjustments were made. Final version were given to small sample of nurses, we did not receive any critical comments or suggestions. To check the reliability of

the test the Cronbach's alpha was calculated for each subscale (Raščevska, & Kristapsone, 2000; Raščevska, 2005).

1.3 Procedure

Data collected in a period from 2009. till 2011. Data collection procedures were in accordance with ethical principles (in accordance with the Declaration of Helsinki), guaranteeing anonymity and confidentiality of respondents. This study received permission and acceptance from Ethics committee of the RSU. The total count of respondents — 1094 , 700 filled one questionnaire, 113 — two questionnaires and 281 — four questionnaires.

1.4 Methods of Data Processing and Analysis

The data processing was performed using the Microsoft Excel and SPSS 19.0 statistical software.

The data analysis was carried out using Kolmogorov-Smirnov test, mean (M) un standartdeviation (SD) calculations, minimal and maximal values calculations, Spearman's correlation, Post Hoc LSD test, Mann-Whitney U test.

2 RESULTS

2.1 Participants of the research

From 2009. till 2011. total amount of 1094 respondents took part in the study. Age range of respondents from 22 till 68 years ($M=40.23$; $SD=9.30$), average for practicing in nursing 17.12 years ($SD=9.53$). The age range distribution is shown in the Figure 2.1.

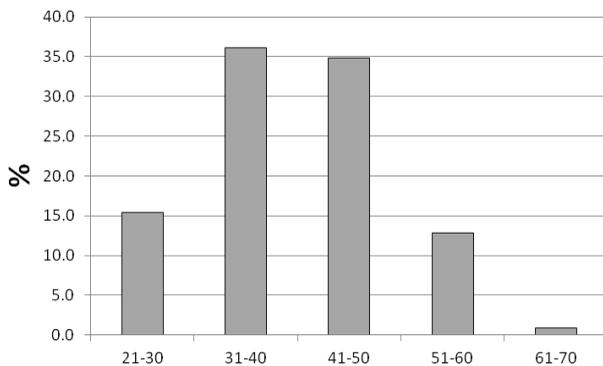


Figure 2.1. The age range distribution of respondents

Respondents' response scores as high - in 1500 the distributed tests and questionnaires, duly completed and recognized as the test samples was the 1094.

Describes the results of each subdivision will be described in greater detail at the beginning of the survey sample of respondents.

2.2 The questionnaire for nurses results

The participants of the study were 241 nurses from several hospitals and outpatient care institutions in Latvia. All participants were women, age range - from 21 till 59 years ($M=41.20$; $SD=8.10$). The most part of participants

were nursing school graduates - 78.0%. College education obtained 18.7%, but Bachelor or Masters' degree in Nursing - just 3.3%. Twentythree percent (23.2%) of participants also got other higher education, not related with a health care. Nurses working in outpatient care facilities were 27.0%, in surgical care units - 16.6%, in psychiatric units - 10.8%. Most part of respondents (81.7%) were working as nurses, 9.1% of participants occupied in manager positions (head nurse or matron).

More than a half (59.8%) of participating nurses never heard about supervisions, 95.5% did not attend supervisions for nurses in past 5 years. Most of the respondents (93.4%) considered that practicing nurses need supervisions. Nurses opinions about clinical supervision usefulness are shown in Table 2.1.

Table 2.1.

Nurses' opinions about clinical supervision necessity for nurses (N=241)

Question	Yes	No
Have you ever heard about supervision?	40.2%	59.8%
Have you attended supervision meant for nurses in the last 5 years?	4.5%	95.5%
Do the practicing nurses need the supervisions?	93.4%	6.6%

The most frequently marked factor in nurses' surveys is "risk of infection". A total of 220 nurses have chosen this factor and 101 (41.9%) ranked it as the most important of all proposed. Only 21 (8.7%) nurses did not rank this factor at all. Frequently marked factors also were "Inadequate remuneration for work" (217 marked, 22.4% ranked with 10), "Emotionally intensive work with people" (179 marked, 7.9% ranked with 10), "Large (inadequate) amount of work" (168 marked, 5.0% ranked with 10) and "Intensive work" (164 marked and 1.2% ranked with 10). The descriptive statistical parameters of participants' answers about stress related and contributory work environment factors are shown in Table 2.2.

The lowest marked factors were "Conflicts with patients' relatives", "Conflicts, disagreements with patients", and "Social role ambiguity".

Table 2.2.

Stress related work environment factors for practicing nurses (n=241)

No.	Factor	Frequency of marking	Rank "10" frequency	M	SD
1.	Risk of infection	220	101	6.78	3.64
2.	Ergonomically unsuitable environment	122	6	2.83	3.44
3.	Working on holidays	97	4	2.07	3.04
4.	Inadequate remuneration for work	217	54	6.74	3.33
5.	Poor knowledge use	83	2	1.58	2.61
6.	Lack of professional empowerment	100	2	2.05	2.91
7.	The lack of decision-making opportunities	77	2	1.55	2.60
8.	Problems in interaction with the administration	74	0	1.41	2.51
9.	Large (inadequate) amount of work	168	12	3.98	3.47
10.	Intensive work	164	3	3.96	3.26
11.	Shift work (on call)	82	1	1.29	2.32
12.	Routine in the work process	104	4	1.97	2.81
13.	Problems in interaction with colleagues, conflicts with colleagues	74	4	1.49	2.67
14.	Unclear division of responsibilities	67	7	1.48	2.84
15.	Conflicts, disagreements with patients	72	3	1.16	2.30
16.	Lack of colleagues support in daily work	76	0	1.43	2.53
17.	Low job prestige	140	7	3.07	3.38

End of table 2.2.

No.	Factor	Frequency of marking	Rank "10" frequency	M	SD
18.	Conflicts with patients' relatives	55	1	1.02	2.25
19.	Emotionally intensive work with people	179	19	4.41	3.58
20.	Lack of time, overload	163	5	3.60	3.29
21.	Social role ambiguity	76	4	1.24	2.38

The second most essential factor declared by the respondents is the “inadequate salary”, this factor was marked overall by 217 (n=241) but the maximal evaluation of “10” was given by 54 (22.4%) respondents. The arithmetic mean for this factor is 6.74 (SD=3.33).

“Emotionally intensive work with people” was marked overall by 179 respondents (n=241), the maximal evaluation “10” was received 19 times (7.9%), the arithmetic mean – M=4.41 (SD=3.58). Evaluating the average showings, for nurses of ambulatory-care and mental-care, as well as from other subgroups, this factor takes the third place according to the average showings and marking frequency.

To identify the differences among nurses who were working in different fields, units, the eight factors with the highest mean values were selected. To make statistical comparing between subgroups we used Post Hoc LSD test (table 2.3.).

By comparing the replies of nurses who work in various fields of professions, it was established that the average showings of the factor of “a risk of an infection” among the subgroup of employees in the operating room are statistically higher when comparing with the rest of the subgroups` average showings (p<0.05), with an exception of child-care nurses` subgroup.

Table 2.3.

The most frequently mentioned work environment factors averages differences by different health care profiles (Post Hoc LSD test)

Factor	Children care	Operating room	Out-patient care	Mental health	Intensive care	Other
Sample size (n)	16	19	65	26	6	58
Risk of infection						
Medical care	-2.93*	-2.97*				
Children care			2.17*	2.37*		3.03*
Operating room			2.20*	2.40*	3.29*	3.07*
Surgical care						1.85*
Ergonomically unsuitable environment						
Medical care		-3.10*				
Operating room					3.54*	
Inadequate remuneration for work						
Children care		2.41*	1.95*			
Other			-1.19*			
Large (inadequate) amount of work						
Surgical care			1.57*	1.72*		
Low job prestige						
Surgical care		2.05*				
Out-patient care	-1.88*	-2.22*		-1.58*		
Emotionally intensive work with people						
Children care			-2.26*			
Operating room			-3.01*	-2.45*		-2.43*

End of 2.3. table

Factor	Children care	Operating room	Out-patient care	Mental health	Intensive care	Other
Lack of time, overload						
Surgical care				1.70*	2.87*	
Other				1.78*	2.94*	

*p<0.05

2.3 The results of Maslach Burnout Inventory

Overall, during the period from 2009. to 2011. Maslach burnout inventory completed by 587 practicing nurses. Age range of respondents was from 22 to 68 years (M=41.80; SD=8.91). All nurses involved in the survey were women. Work experience in the profession of nursing ranged from half year to 46 years (M=19.13; SD=8.99).

Evaluating the data obtained with the normal distribution was calculated Kolmogorov-Smirnov factor. It should be noted that the normal distribution did not match any subscale data empirical distribution.

Descriptive statistical parameters for Maslach Burnot Inventory by subscales are shown in Table 2.4. Mean for Emotional Exhaustion subscale - 22.75 (SD=10.75), for Depersonalization subscale was 7.52 (SD=5.30) and for rank of Personal achievement subscale - 34.57 (SD=8.22).

Table 2.4.

Descriptive statistic parameters of Maslach Burnot Inventory (n=587)

	Emotional exhaustion subscale	Depersonalization subscale	Personal achievement subscale
Sample size (n)	587	587	587
Minimal value	0	0	9
Maximal value	53	30	48
M	22.75	7.52	34.57
SD	10.75	5.30	8.22

To find out whether there are statistically significant differences between different age groups averages were calculated Mann-Whitney U criterion (results displayed in table 2.5.), as well as between nurses with different work experience in the profession (the results displayed in table 2.6.) and between different professional profiles of the respondents (results displayed in table 2.7.).

Table 2.5.

Maslach burnout inventory differences in survey results by age groups (Mann-Whitney U test)

Age group (years)	31-40	41-50	51-60	61-70
Emotional exhaustion subscale				
21-30	6682.0	5586.0	2453.0	244.5
31-40		21405.5	9794.5	988.5
41-50			7920.0*	790.5
51-60				456.0

*p<0.05

As shown in 2.5. table, the statistically significant differences observed in the emotional exhaustion subscale averages between age group of 41-50 years and 51-60 years. Group of mothers aged 51-60 years was statistically significantly higher average emotional exhaustion subscale (p<0.05). Other subscales statistically significant differences were not found.

Table 2.6.

Maslach burnout inventory differences in survey results by work experience (Mann-Whitney U test)

Work experience (years)	11-20	21-30	31-40
Emotional exhaustion subscale			
0-10	11398.5	7841.0	3041.5
11-20		20800.5	7734.5*
21-30			5304.0*
Personal achievement subscale			
0-10	9979.0*	7255.0	3558.5
11-20		19965.5	8163.0
21-30			5953.0

*p<0.05

Table 2.7.

**Maslach burnout inventory differences in survey results by work profile
(Mann-Whitney U test)**

Profile	Mental health care	Surgical care	Operating room	Children care	Medical care	Other
Emotional exhaustion subscale						
1	9528.0	4909.0	2415.5	2891.0*	4499.0*	2128.0**
2		5665.5	2755.0	3225.0	4956.5*	2390.0*
3			1716.0	2078.0	3190.5	1548.5
4				1003.0	1555.0	748.0
5					2182.5	1040.0
6						1613.0
Depersonalization subscale						
1	9130.5	5459.5	2635.0	2751.5*	3826.5**	2165.5*
2		5932.5	2529.5	3364.5	4716.0**	2654.5
3			1514.0	1844.5	2549.0**	1447.5
4				777.0*	1058.5**	618.0*
5					2035.0	1114.0
6						1660.5
Personal achievement subscale						
1	6609.5**	5128.0	2698.5	2777.5*	4009.5**	1729.0**
2		4425.0**	2016.0**	3257.5	5775.5	3059.5
3			1578.5	1890.0	2669.0**	1173.0**
4				846.5	1202.5**	515.5**
5					1979.0	890.5
6						1624.0

*p<0.05

**p<0.01

1- Out-patient care, 2- Mental health care, 3- Surgical care, 4- Operating room,
5- Children care, 6- Medical care.

2.4 The results of Beck Depression Inventory

Overall, during the period from 2009. to 2011. Beck Depression Inventory completed by 341 practicing nurses. Age range of respondents was from 22 to 58 years (M=40.58; SD=7.97). All nurses involved in the survey were women. Work experience in the profession of nursing ranged from half year to 35 years (M=17.55; SD=8.30).

Evaluating the data obtained with the normal distribution was calculated Kolmogorov-Smirnov factor. It should be noted that the normal distribution did not match any subscale data empirical distribution.

Descriptive statistical parameters for Beck Depression Inventory by subscales are shown in Table 2.8.

Table 2.8.

Descriptive statistical parameters of Beck Depression Inventory (n=341)

	BDI cognitive subscale	BDI somatic subscale	BDI total
Sample size (n)	341	341	341
Minimal value	0	0	0
Maksimal value	36	18	52
M	6.02	5.06	11.07
SD	5.00	3.91	8.23

To find out whether there are statistically significant differences between different age groups averages or different profiles group averages were calculated Mann-Whitney U criterion. The results showed that there are no significant differences in those parameters between nurses who work in various medical sectors, as well as between different age groups.

Nurses with work experience of 31-40 years have statistically higher somatic subscale average indicators of Bek's Depression Inventory (table 2.9.), when comparing with nurses who work in their profession for 11-20 years ($p<0.05$) and 0-10 years ($p<0.01$), it means that nurses with a longer work experience tend to feel the somatic depression symptoms more frequently, such as, changes in appetite, fatigue, sleeping disorders, etc.

Table 2.9.

Beck Depression Inventory differences in survey results by work experience (Mann-Whitney U test)

Work experience (years)	11-20	21-30	31-40
BDI somatic subscale			
0-10	4654.0	2769.5	495.0**
11-20		7224.5	1375.0*
21-30			901.5

*p<0.05

**p<0.01

2.5 The results of State-Trait Anxiety Inventory

Overall, during the period from 2009. to 2011. the State-Trait Anxiety Inventory completed by 381 practicing nurses. Age range of respondents was from 22 to 58 years (M=39.86; SD=8.63). All nurses involved in the survey were women. Work experience in the profession of nursing ranged from half year to 35 years (M=16.14; SD=8.87).

Evaluating the data obtained with the normal distribution was calculated Kolmogorov-Smirnov factor. It should be noted that the normal distribution did not match any subscale data empirical distribution.

Descriptive statistical parameters for State-Trait Anxiety Inventory by subscales are shown in Table 2.10.

Table 2.10.

Descriptive statistical parameters for State-Trait Anxiety Inventory (n=381)

	State subscale	Trait subscale
Sample size (n)	381	381
Minimal value	20	20
Maximal value	77	73
M	45.82	44.74
SD	10.86	9.73

To find out whether there are statistically significant differences between nurses with different work experience in the profession (the results displayed in table 2.11.) and between different professional profiles of the respondents (results displayed in table 2.12.).

Table 2.11.
State-Trait Anxiety Inventory differences in survey results by work experience (Mann-Whitney U test)

Work experience (years)	11-20	21-30	31-40
State-Trait Anxiety Inventory state subscale			
0-10	7694.0	4028.5	825.0*
11-20		7023.5	1490.5
21-30			925.0
State-Trait Anxiety Inventory trait subscale			
0-10	7335.0	4520.0	1010.5
11-20		7209.5	1453.5*
21-30			9230

*p<0.05

Nurses with work experience of 31-40 years have statistically more significant average indicators on the situational anxiety subscale, by comparing with a group of nurses who work in their profession for up to 10 years (p<0.05), as well as statistically significant higher average indicators on the basic anxiety subscale when comparing with nurses who are working for 11-20 years (p<0.05).

Statistically significant differences in the anxiety state features of the self-survey on the basic anxiety subscale average indicators between nurses working in various medical fields were not found. Nurses, who work in the operating rooms, statistically have higher indicators of the situational anxiety, when comparing with nurses who work in outpatient-care and mental-health (p<0.01).

Table 2.12.

**State-Trait Anxiety Inventory differences in survey results by work profile
(Mann-Whitney U test)**

Unit profile	Mental health care	Surgical care	Operating room
State-Trait Anxiety Inventory state subscale			
Out-patient care	5198.5	7452.5	3012.0**
Mental health care		2325.5	888.0**
Surgical care			1870.0

**p<0.01

2.6 Professional Quality of Life Scale results

Overall, during the period from 2009. to 2011. the Professional Quality of Life Scale completed by 500 practicing nurses. Age range of respondents was from 22 to 68 years (M=42.72; SD=8.50). All nurses involved in the survey were women.

Evaluating the data obtained with the normal distribution was calculated Kolmogorov-Smirnov factor. It should be noted that the normal distribution did not match any subscale data empirical distribution.

Descriptive statistical parameters for Professional Quality of Life Scale by subscales are shown in Table 2.13.

Table 2.13.

**Descriptive statistic parameters of Professional Quality of Life Scale
(n=500)**

	Compassion Satisfaction subscale	Burnout subscale	Secondary Traumatic Stress subscale
Sample size (n)	500	500	500
Minimal value	1	0	4
Maximal value	50	44	39
M	37.41	22.74	19.37
SD	7.94	6.43	6.58

Table 2.14.

Cronbach's alpha values for Professional Quality of Life Scale subscales

Subscale	Cronbach's alpha
Compassion Satisfaction subscale	0.88
Burnout subscale	0.71
Secondary Traumatic Stress subscale	0.74

The reliability statistical parameter Cronbach's alpha was calculated for each subscale and the results are shown in Table 2.14.

Table 2.15.

Correlations between subscales of Professional Quality of Life Scale

Subscale	Burnout subscale	Secondary Traumatic Stress subscale
Compassion Satisfaction subscale	-0.54**	-0.12**
Burnout subscale		0.58**

** p<0.01

The correlation between the indicators of the subscale was calculated by applying Spearman's correlation coefficient (table 2.15.). The correlation between the subscales was statistically significant ($p < 0.01$), in addition, the inclusive compassion fatigue scales (burnout and secondary traumatic stress subscales) are quite significant and positive ($r = 0.58$). This demonstrates the close relationship between both subscales.

It was found that there are not any statistically important differences on the subscales of compassion satisfaction and burnout among nurses of various age groups, as well as nurses with various work experience.

The secondary traumatic stress subscale demonstrated statistically important differences, both, among various age groups (table 2.16.), and nurses with different work experience (table 2.17.). Nurses from the age group of 51 years and more have statistically more important higher indicators in comparison with nurses from the age groups of 21-30 and 41-50 years

($p < 0.05$). Likewise, nurses with work experience of 31-40 years have statistically more important higher showings on the subscale of secondary traumatic stress ($p < 0.05$).

Table 2.16.

Professional Quality of Life Scale differences in survey results by age groups (Mann-Whitney U test)

Age (years)	31-40	41-50	51- and more
Secondary traumatic stress subscale			
21-30	3200.5	3923.5	1507.0*
31-40		15403.0	6972.5
41-50			7337.0*

* $p < 0.05$

Table 2.17.

Professional Quality of Life Scale differences in survey results by work experience (Mann-Whitney U test)

Work experience (years)	11-20	21-30	31-40
Secondary traumatic stress subscale			
0-10	5432.0	4769.5	1360.5*
11-20		17310.0	5468.0
21-30			4384.0

* $p < 0.05$

Table 2.18.

Professional Quality of Life Scale differences in survey results by work profile (Mann-Whitney U test)

Profile	Mental health care	Surgical care	Operating room	Other
Compassion satisfaction subscale				
Out-patient care	9065.5**	7467.5	4006.5	2968.0
Mental health care		5325.5**	2746.5**	2056.0**
Surgical care			2315.0	1689.5
Operating room				1024.0

** $p < 0.01$

The burnout subscale and the secondary traumatic stress subscale do not have any significant differences statistically between groups of nurses from various fields of work. It must be noted that the average indicators for that mental-health nurses on the compassion satisfaction subscale (table 2.18.) are statistically lower in comparison with all the other groups of nurses ($p < 0.01$), which can be explained with the peculiarities of work of mental-health nurses.

2.7 Correlations results

Overall 281 respondent were surveyed using four research tools: Maslach Burnout Inventory, Beck Depression Inventory, State-Trait Anxiety Inventory and Professional Quality of Life Scale. Age average of this sample was $M = 42.12$ ($SD = 7.37$). All nurses involved in the survey were women.

Evaluating the data obtained with the normal distribution was calculated Kolmogorov-Smirnov factor. It should be noted that the normal distribution did not match any subscale data empirical distribution. After data collection was carried out correlation analysis using Spearman's rank correlation coefficient.

Correlations are shown in tables 2.19., 2.20., 2.21. Positive correlations are found between the subscale of emotional exhaustion of Maslach's Burnout Inventory and Bek's Depression Inventory ($r = 0.55$; $p < 0.01$). The correlation between the emotional exhaustion of Maslach's Burnout Inventory and the subscale of the situational anxiety is $r = 0.47$ ($p < 0.01$), as well as the subscale of the features of anxiety is $r = 0.52$ ($p < 0.01$), and they are evaluated as statistically significant, average close.

The indicators of emotional exhaustion subscale of Maslach's Burnout Inventory also correlate with the indicators of depersonalization subscale from the same survey ($r = 0.51$; $p < 0.01$). Statistically important correlations between the other subscales of Maslach's Burnout Inventory were not found.

Table 2.19.

Spearman's rank correlation coefficients of Beck Depression Inventory and Professional Quality of Life scale results (n=281)

Research instrument	Beck Depression Inventory (cognitive subscale)	Beck Depression Inventory (somatic subscale)	Beck Depression Inventory (total)
Professional Quality of Life Scale (Compassion Satisfaction subscale)	-0.21	-0.24	-0.25
Professional Quality of Life Scale (Burnout subscale)	0.49*	0.50*	0.53*
Professional Quality of Life Scale (Secondary Traumatic Stress subscale)	0.44*	0.41*	0.45*

*p<0.01

The indicators of the subscale of emotional exhaustion of Maslach's Burnout Inventory also correlate with the burnout subscale of professional quality of life scale ($r=0.66$; $p<0.01$) and secondary traumatic stress subscale ($r=0.54$; $p<0.01$).

Table 2.20.

Spearman's rank correlation coefficients of Beck Depression Inventory, Professional Quality of Life scale and Maslach Burnout Inventory results (n=281)

Research instrument	Maslach Burnout Inventory (Emotional Exhaustion subscale)	Maslach Burnout Inventory (Depersonalization subscale)	Maslach Burnout Inventory (personal accomplishment subscale)
Professional Quality of Life Scale (Compassion Satisfaction subscale)	-0.35	-0.37	0.45*

End of 2.20. table

Pētījuma instruments	Maslach Burnout Inventory (Emotional Exhaustion subscale)	Maslach Burnout Inventory (Depersonalization subscale)	Maslach Burnout Inventory (personal accomplishment subscale)
Professional Quality of Life Scale (Burnout subscale)	0.66*	0.50*	-0.39
Professional Quality of Life Scale (Secondary Traumatic Stress subscale)	0.54*	0.34	-0.12
Beck Depression Inventory (cognitive subscale)	0.49*	0.28	-0.25
Beck Depression Inventory (somatic subscale)	0.53*	0.26	-0.24
Beck Depression Inventory (total)	0.55*	0.29	-0.27

* $p < 0.01$

Table 2.21.

Spearman's rank correlation coefficients of Beck Depression Inventory, Professional Quality of Life scale, Maslach Burnout Inventory and State-Trait Anxiety Inventory results (n=281)

Research instrument	State-Trait Anxiety Inventory (state subscale)	State-Trait Anxiety Inventory (trait subscale)
Maslach Burnout Inventory (Emotional Exhaustion subscale)	0.47*	0.52*
Maslach Burnout Inventory (Depersonalization subscale)	0.23	0.27
Maslach Burnout Inventory (personal accomplishment subscale)	-0.29	-0.34

End of 2.21. table

Research instrument	State-Trait Anxiety Inventory (state subscale)	State-Trait Anxiety Inventory (trait subscale)
Professional Quality of Life Scale (Compassion Satisfaction subscale)	-0.20	-0.31
Professional Quality of Life Scale (Burnout subscale)	0.52*	0.56*
Professional Quality of Life Scale (Secondary Traumatic Stress subscale)	0.46*	0.46*
Beck Depression Inventory (cognitive subscale)	0.60*	0.55*
Beck Depression Inventory (somatic subscale)	0.58*	0.55*
Beck Depression Inventory (total)	0.63*	0.59*

*p<0.01

3 DISCUSSION

The aim of the research was to examine the professional quality of life and its psychosocial aspects and their influencing factors of practicing nurses.

The professional quality of life psychosocial aspects influencing factors. In response to the question in the questionnaire about the factors of the work place, nurses had a chance to put down the most essential and major factors according to them. The factor about “a chance of an infection” was marked overall by 220 nurses (n=241), in addition, 41.9% of the respondents gave the highest possible evaluation to this factor - “10”. Also “a chance of an infection” has the highest arithmetic mean (M=6.78; SD=3.64) from all the factors. It can be concluded that the selected nurses as one of the main and most important factors at their work place consider the risk of an infection by performing their duties daily. It should be noted, that (Van der Colff et al., 2009), as one of the main stressors at the work place for nurses mentioned health risks associated with a close contact with patients.

By comparing the replies of nurses who work in various fields of professions, it was established that the average showings of the factor of “a risk of an infection” among the subgroup of employees in the operating room are statistically higher when comparing with the rest of the subgroups` average showings ($p < 0.05$), with an exception of child-care nurses` subgroup. Perhaps this is due to the fact that operating room nurses` work involves performing many tasks which increase the risk of an infection, hence, the reply values from nurses in this field of work are much higher than from other areas of work. However, looking at the average comparison between the subgroups of nurses of various areas of work, it can be established that for medical-care and mental-health nurses the factor of a ”risk of an infection” is the second most important, for nurses of other fields (except intensive-care nurses) this factor has the highest arithmetic mean.

The second most essential factor declared by the respondents is the “inadequate salary”, this factor was marked overall by 217 (n=241) but the maximal evaluation of “10” was given by 54 (22.4%) respondents. The arithmetic mean for this factor is 6.74 (SD=3.33). However, for the subgroups of nurses working in medical-care, mental-health and other fields of work, this factor is with the highest average indicators, it is acknowledged as the most essential by nurses in these fields.

By comparing the answers from nurses of various fields of work, it was concluded that the average showings of “inadequate salary” among the nurses in child-care subgroup are statistically higher when comparing with the indicators of nurses working in ambulatory-care and operating room ($p<0.05$). A similar situation occurs when comparing the average showings of ambulatory-care nurses with nurses from other fields whose average showings in this factor are higher than the nurses from ambulatory-care ($p<0.05$).

“Emotionally intensive work with people” was marked overall by 179 respondents (n=241), the maximal evaluation “10” was received 19 times (7.9%), the arithmetic mean – $M=4.41$ (SD=3.58). Evaluating the average showings, for nurses of ambulatory-care and mental-care, as well as from other subgroups, this factor takes the third place according to the average showings and marking frequency.

Comparing the answers from nurses who work in various work sectors, it was concluded that the average showings of the factor “emotionally intensive work with people” are statistically higher in the subgroups of nurses working in the fields of mental-health and ambulatory-care when compared with operation room nurses ($p<0.05$).

For nurses who work in the field of mental-health, the contributing factors and burnout might differ from the burnout factors of nurses who work in other fields, mainly, due to the nature of work. All day long when coming into contact with delusional patients, their anxiety, fear and depression, the nurses

develop a counter reaction which they do not want to systematically exclude from their feelings (Kulbergs, 2001).

Feeling threatened daily when a patient might become aggressive and violent, or caring for a patient who has an intense disposition of suicidal behavior, usually it means to be under enduring, chronic state of tension. (Kulbergs, 2001).

On the other hand, nurses who work in the outpatient-care, a large part of their daily work day is made up from communicating (direct, via phone, electronically) with patients from various age groups who are seeking medical aid on the primary level of health-care. Consequently, outpatient-care nurses have mentioned the “emotionally intensive work with people” factor as the third most important.

Factors which were marked the least was: “conflicts, disagreements with patients”, “problems communicating with colleagues”, “conflicts with colleagues”, “unclear division of responsibilities”, “conflicts with patients’ relatives”, “social role ambiguity”. It can be deduced that the selected nurses consider these factors to be least important, or they effectively address the communication issues and conflicts, hence, do not consider these factors to be the most important. Looking from the perspective of Maslow’s Motivation Theory (Reñge, 1999), it is clear that the most important are the basic physiological needs that a person can provide if there is a sufficient salary, adequate working hours, security needs according to the next level – a risk of an infection and ergonomically suitable working environment, and only after those are followed by social and affiliation needs, which might include communication, conflict management and resolution.

The results of Maslach’s Burnout Inventory. Analyzing the indicators of Maslach’s Burnout Inventory among the selected nurses (n=587), it was found that the arithmetic means on the subscale of the questionnaire was 22.75 (SD=10.75) the emotional exhaustion subscale and 7.52 (SD=5.30) in the

de-personalization subscale, but the arithmetic mean of the personal achievement scale was 34.57 (SD=8.22).

In order to compare the results of the selected nurses with the data accessible in the literature about the results of Maslach`s Burnout Inventory among the population of nurses, a table was made (see 3.1 table). The overall average indicators of the selected nurses are comparable with the data accessible in the literature.

The highest indicators of emotional exhaustion, comparing with the data of the selected nurses, are found in the research carried out in the Netherlands, the USA, Hungary and Greece, on the other hand, the lowest indicators are found in research done in Turkey, Poland and Belgium. This may be explained by the different economic situation among the countries, as well as the peculiarities of working conditions, salary and other factors.

It is possible that the showings are influenced also by the age distribution and work experience of the selected nurses, because it is mentioned in the literature that younger professionals are more subjected to the risk (Schaufeli, & Enzmann, 1998; Potter, 2006; Bush, 2009).

The average showings of the depersonalization among the selected nurses are higher in comparison to the study carried out in the Netherlands, Turkey, Poland and Belgium. It can be explained by the peculiarities of the daily work the selected nurses do – a vast number of patients in medical – care, longer working hours when comparing to other countries.

The scores of the personal achievements subscale are relatively high in comparison to the rest of the data of the study (higher showings are only in the USA, Hungary and Greece), which demonstrate that the selected nurses are more prone to professional development and growth.

**The arithmetic means and the comparison of the standard deviations of
Maslach`s Burnout Inventory subscales with previous studies**

Study (author, year, country)	Sample size (n)	Emotional exhaustion subscale M and SD	Depersonalization subscale M and SD	Personal accomplishment subscale M and SD
Current study, Cirenis (2012) Latvia	587	22.75±10.75	7.52±5.30	34.57±8.22
Ksiazek et al. (2011) Poland	60	M=18.60	M=6.53	M=27.03
Kovacs et al. (2010) Hungary	76	24.01±11.48	6.28±9.32	36.77±9.29
Bratis et al. (2009) Greece	95	26.34±11.66	10.83±6.37	33.79±8.51
Van Bogaert et al. (2009) Belgium	401	13.05±8.07	4.72±4.15	34.34±5.74
Van der Colff, & Rothmann (2009) Republic of South Africa	818	22.15±11.28	4.86±4.46	22.60±5.20
Browning et al. (2007) USA	100	M=26.81	M=11.98	M=37.90
Alimoglu, & Donmez (2005) Turkey	141	19.20±6.90	5.20±3.60	20.80±4.00
Tselebis et al. (2001) Greece	62	21.83±9.94	8.07±6.30	35.36±6.54
Schaufeli, & Enzmann, (1998) Netherlands	1542	23.80±11.80	7.13±6.25	13.53±8.15

The research reveals that there are not any significant differences statistically in the average indicators between various age groups of nurses in the de-depersonalization or on the subscale of personal achievements in

Maslach's Burnout Inventory (see 2.13 table), hence, it can be concluded that the age is not considered to be the dominating factor concerning the dehumanization of nurses, development of cynicism or the reduction of personal achievement perception among the selected nurses. However, a group of nurses from the age of 51 - 60 years statistically have more significant average indicators on the subscale of emotional exhaustion when compared to a group of nurses ranging from 41-50 years ($p < 0.05$), despite the data found in the literature which demonstrate that professionals who are younger, tend to be subjected to a risk of burnout more noticeably (Schaufeli, & Enzmann, 1998; Potter, 2006; Bush, 2009).

Furthermore, based on the literary data, those new specialists who have just started their career, as well as specialists who go to work at a new work place, are subjected to increased risk situations (Rudman, & Gustavsson, 2011).

For nurses with a work experience of 31-40 years the average showings of the emotional exhaustion subscale are statistically more significant and higher when comparing to nurses whose work experience is 11-20 and 21-30 years ($p < 0.05$).

It can be concluded that the selected nurses who worked in their profession for 31-40 years, have more distinctive emotional exhaustion. Theoretically speaking, all three dimensions of burnout symptoms should decrease with age and due to accumulated work experience, but they are particularly pronounced in the depersonalization and emotional exhaustion subscales (Schaufel, & Enzmann, 1998). This can be related to Bek's depression questionnaire results in which nurses with a longer work experience had higher average indicators in the somatically productive subscale. It is possible that for older nurses with a longer work experience the emotional exhaustion is connected more with depression, rather than the inadequacy

between expectations and reality, as it may occur to young people, individuals who have recently started working.

A group of nurses with a work experience of 11-20 years, statistically have more significant average indicators on the subscale of personal achievements ($p < 0.05$) when comparing with nurses whose work experience is up to 10 years, hence, nurses who work in their profession for a shorter period of time have a more pronounced burnout on the personal achievement subscale when comparing to colleagues who are more experienced. In this case, the employees develop a negative idea about their progress at work (Cordes, & Dougherty, 1993), or start to lose faith in their desires, expectations, work performance decreases, the quality of relationships deteriorate (Maslach, & Leiter, 1997).

On the subscale of depersonalization, statistically important differences concerning the different length of work experience was not established. It means that the work experience for the selected nurses is not to be considered influential for the development of depersonalization and dehumanization.

Analyzing the average indicators between various groups of professional nurses, statistically important differences were noticed in all three subscale indicators. It must be noted that statistically important highest average indicators for the emotional exhaustion subscale is for nurses who work at child-care, medical-care, as well as other fields of work (this group combines all the nurses from various sectors of work who did not fit into any of the seven basic specialties for nurses or did not make a sufficiently quantitative subgroup in order to represent it). These data can be related with the research carried out in Denver (the USA) which was attended by 332 practitioner nurses, according to the data, higher showings in the burnout symptom readings on the personal achievement subscale were to those nurses who worked at hospitals when comparing with outpatient practitioner nurses, but on the subscale of

depersonalization – nurses who work at outpatient nursing (Mealer, Burnham, Goode, Rothbaum, & Moss, 2009).

On the other hand, the depersonalization subscale demonstrates statistically more important average indicators for nurses who work at medical-care, comparing with outpatient-care, mental-health nursing, surgical-care and operating room nurses ($p < 0.01$).

It should be noted that more distinctive burnout indicators and emotional exhaustion, as well as depersonalization dimensions are to those nurses who work at the emergency rooms when comparing to practitioner nurses who have a wider experience as well as head nurses (Browning et al., 2007). Statistically there are more important higher average indicators for outpatient-care nurses when comparing with mental-health nurses, as well as when comparing operating room nurses with medical-care nurses, it can also be observed on the subscale of personal achievements ($p < 0.01$).

Comparing the indicators of the burnout of selected mental-health nurses with the literary data from (Hanrahan et al., 2010), it was concluded that the average indicators of the emotional exhaustion subscale are higher ($M=21.11$; $SD=9.73$) than the average showings of the selected mental-health nurses in the USA ($M=20.80$; $SD=12.10$), similarly, the indicators of the depersonalization subscale ($M=7.44$; $SD=5.41$) are noticeably much higher ($M=4.81$; $SD=4.80$) in the given selection of nurses. On the other hand, those nurses who work at the mental-health sector in the USA, have much higher average indicators ($M=37.40$; $SD=7.50$) than the given indicators of the research group ($M=32.25$; $SD=8.89$). It is possible that the diverse results can be explained both, by the peculiarities of the workload, and the differences in models of health-care, as well as the support systems and the accessibility of supervisions to mental-health nurses who work in the USA.

The results of Beck Depression Inventory. Analyzing Beck Depression Inventory among the selected nurses ($n=341$), it was proven that the

arithmetical means on the subscales of the survey was 6.02 (SD=5.00) on the cognitive subscale and 5.06 (SD=3.91) on the somatically productive subscale, but the overall arithmetical mean of the questionnaire was 11.07 (SD=8.23).

Comparing the average indicators with accessible data about the indicators of Beck Depression Inventory in other groups in Latvia, it can be concluded that the results of the selected nurses are similar with a group of students (Voitkāne, 2004), where the average indicators of depression (M) fluctuate from 7.10 to 18.85 (SD is from 4.30 to 10.65).

By comparing the results of the selected nurses with the data accessible in the literature of Beck Depression Inventory among the population of nurses, it can be deduced that the data of selected nurses of Latvia demonstrate a higher level of depression. When the authors of the research (Bratis et al., 2009) made a survey in 2009 about practitioner nurses (n=95), they obtained lower indicators (M=8.47; SD=6.57), also, in 2001, the data of (Tselebis et al., 2001) demonstrate lower average indicators among the selected practitioner nurses (n=62; M=8.00; SD=6.88). It is possible that higher indicators of depression in Latvia among the selected nurses are connected with the socioeconomic situation in the country at that time when the data were obtained. The reorganization of hospitals, unawareness and uncertainty about the future of a stable working place would be considered to be the connecting factors. In addition, by analyzing the data, sociocultural differences must be taken into account.

The research reveals that there are not any statistically important differences on the subscale or total average indicators of Beck Depression Inventory among nurses of various age groups, hence, it can be concluded that the age is not to be considered a determinative factor for the development of symptoms of depression among the selected nurses. At the same time it must be noted that nurses with work experience of 31-40 years have statistically higher somatic subscale average indicators of Beck Depression Inventory, when

comparing with nurses who work in their profession for 11-20 years ($p<0.05$) and 0-10 years ($p<0.01$), it means that nurses with a longer work experience tend to feel the somatic depression symptoms more frequently, such as, changes in appetite, fatigue, sleeping disorders, etc.

It can be concluded from the research that any statistically important differences have not been observed on the subscale of Beck Depression Inventory or the total BDI, the average indicators between nurses who work in various medical sectors, even though, numerically highest arithmetical means are for nurses who work in operating rooms. It must be noted that literature offers data about differences in the average indicators of depression among nurses who work in various fields, for example, the symptoms of depression turned out to be more distinctive for nurses who work in emergency rooms (Browning et al., 2007), as well as in the USA, where practitioner nurses were surveyed, the indicators turned out to be higher for nurses working at hospitals in comparison with nurses who work in outpatient-care, on the other hand, anxiety readings were higher for outpatient-care nurses (Mealer et al., 2009).

The results of State-Trait Anxiety Inventory. State-Trait Anxiety Inventory was filled out by 381 practitioner nurses, from the age of 22 to 58 years ($M=39.86$; $SD=8.63$), with work experience as a nurse from just several months to 35 years ($M=16.14$; $SD=8.87$). Analyzing the results, it can be concluded that there does not exist any statistically important differences about the features of the state of anxiety, the situational (state) anxiety and basic (trait) in the average indicators on the subscale between respondents of various age subgroups, hence, the age is not considered to be an essential factor among the selected nurses which influences the indicators of anxiety.

Nurses with work experience of 31-40 years have statistically more important average indicators on the situational anxiety subscale, by comparing with a group of nurses who work in their profession for up to 10 years ($p<0.05$), as well as statistically important higher average indicators on the basic anxiety

subscale when comparing with nurses who are working for 11-20 years ($p < 0.05$).

It can be concluded that nurses with a work experience of 31-40 years have higher anxiety showings (both, state and features) when comparing with nurses whose work experience is shorter. It must be taken into account that this subgroup was the smallest numerically (6.3%) when comparing with the rest.

Statistically significant differences in the anxiety state features of the self-survey on the basic anxiety subscale average indicators between nurses working in various medical fields were not found. Nurses, who work in the operating rooms, statistically have higher indicators of the situational anxiety, when comparing with nurses who work in outpatient-care and mental-health ($p < 0.01$), which can be explained with different peculiarities of work. Even though the survey carried out in the USA demonstrated higher indicators of anxiety to nurses who work in outpatient-care (Mealer et al., 2009), the indicators of the selected nurses who work in outpatient-care, did not differ much statistically from the indicators of nurses who work in other fields.

The arithmetical means for the scale of the state of anxiety according to Skuskovnika's (Škuškovnika, 2004) data using the selected women in Latvia, is 38.43, in the age group from 19 to 39 years ($n=594$). For the selected nurses from the age of 21-30 ($n=58$) the scale of the state of anxiety is $M=44.12$ ($SD=10.12$) and the age group from 31-40 years ($n=152$) is $M=45.73$ ($SD=10.98$). On the other hand, for the respondents in the age group from 40 to 49 years, the arithmetical means are 36.74 ($n=84$), but the age group from 50-69 has 35.18 ($n=17$) (Škuškovnika, 2004). The selected nurses from the age of 41-51 years ($n=125$), the scale of the state of anxiety is $M=46.04$ ($SD=10.81$) and the age group from 51-60 years ($n=46$) $M=47.63$ ($SD=11.55$). For the selected nurses from the age of 41-50 years ($n=125$), the scale of the state of anxiety is $M=46.04$ ($SD=10.81$) and the age group of 51-60 years ($n=46$) is $M=47.63$ ($SD=11.55$). It can be observed that situational anxiety indicators

among the nurses are noticeably higher when comparing with the accessible data of a similar age group in Latvia.

According to Skuskovnika's data (Škuškovnika, 2004), the arithmetical means for the scale of the state of anxiety is 43.00 (for women in the age group of 19 to 39 years, $n=594$). The selected nurses have slightly higher showings, in the age group of 21-30 years ($n=58$), the scale of the state of anxiety is $M=44.24$ ($SD=9.89$). On the other hand, respondents from 40 to 49 years have arithmetical means of 40.73 for women ($n=84$), but the age group of 50-69 – 42.12 for women ($n=17$) (Škuškovnika, 2004). The selected nurses from the age of 41-50 ($n=125$) the scale of the state of anxiety is $M=44.43$ ($SD=9.95$) and the age group from 51-50 ($n=46$) $M=46.50$ ($SD=9.27$). It can be concluded that the results of selected nurses in these age groups speak about the highest features of anxiety (basic anxiety) level for nurses, comparing with the data from other groups in Latvia.

The differences of situational anxiety indicators can be explained by the peculiarities of nurses' work and profession, hence, daily they must face tense situations and overwork which may lead to an increased level of anxiety. The differences in the indicators of the features of anxiety are harder to explain, it is possible that respondents have an increased state of anxiety as a personal feature and it cannot be attributed to all nurses as a whole.

The results of the professional quality of life scale. The professional quality of life scale overall was filled out by 500 practitioner nurses, from the age of 22 to 68 years ($M=42.72$; $SD=8.50$). The average results of the subscale of compassion satisfaction, the subscale of burnout and the secondary traumatic stress subscale, the comparison of these subscales with the data found in the literature has been presented in the 3.2. table. Basically, the professional quality of life scale has been used in the USA; hence, by analyzing the differences, we must take into account the status of various nurse professions, salary and the amount of work.

As demonstrated in the 3.2. table, the subscale indicators of compassion satisfaction and burnout do not differentiate substantially; nonetheless, the secondary traumatic stress showings are higher for the selected nurses than those which were registered in other studies.

3.2. table

Arithmetical means of the professional quality of life scale subscales and the standard deviation in comparison with previous studies

Study (author, year, country)	Sample size (n)	Compassion satisfaction subscale M and SD	Burnout subscale M and SD	Secondary traumatic stress subscale M and SD
Circenis (2012) Latvia	500	37.41±7.94	22.74±6.43	19.37±6.58
Burtson, & Stichler (2010) USA	126	37.94±7.65	23.11±7.09	14.64±7.44
Stamm (2010) USA	463	37.00±7.00	22.00±6.00	13.00±6.00
Thomas, & Otis (2010) USA	171	39.46±6.69	18.80±6.56	11.67±7.10
Yoder (2010) USA	106	40.30±4.90	19.20±5.00	12.30±5.60

As the professional quality of life scale was translated and adapted for this study, in order to prove the reliability of the test, which characterizes the internal consistency of the scale, Cronbach 's alpha coefficient was calculated. By comparing the data with the authors` given information of the scale (Stamm, 2010, Bride et al., 2007), it can be understood that Cronbach 's alpha of the subscale of compassion satisfaction is 0.88 (the same for both selections), the subscale of burnout is 0.75 (Stamm, 2010) and in the given study – 0.71, but the secondary traumatic stress subscale is 0.81 (Stamm, 2010) and in the given selection – 0.74. All the indicators of Cronbach 's alpha subscale are sufficiently high, which proves the internal consistency of the test scale.

Also the correlation between the indicators of the subscale was calculated by applying Spearman`s correlation coefficient. The correlation between the subscales was statistically significant ($p<0.01$), in addition, the inclusive compassion fatigue scales (burnout and secondary traumatic stress subscales) are quite close and positive ($r=0.58$). This demonstrates the close relationship between both subscales. Similar data can also be found in the literature, for example, in the USA where 126 practitioner nurses were surveyed (Burtson, & Stichler, 2010), by applying the professional life quality scale, thus, a close correlation between secondary traumatic stress subscale indicators and burnout subscale indicators was found ($r=0.62$; $p<0.01$).

By analyzing the interpretation of data from the results of the professional life quality scale, it should be emphasized that the positive possible result has higher showings on the subscale of compassion satisfaction and lower readings on burnout and secondary traumatic stress subscales (Stamm, 2010), such a combination among the selected nurses was not established.

Analyzing the data about the differences of average indicators of professional life quality scale among nurses of various age groups, as well as nurses with various work experience, it was found that there are not any statistically important differences on the subscales of compassion satisfaction and burnout. It corresponds with the results of Maslach`s Burnout Inventory, in which statistically important differences among nurses of various age groups were not found on the given subscales.

On the other hand, the secondary traumatic stress subscale demonstrated statistically important differences, both, among various age groups, and nurses with different work experience. Nurses from the age group of 51 years and more have statistically more important higher indicators in comparison with nurses from the age groups of 21-30 and 41-50 years ($p<0.05$). Likewise, nurses with work experience of 31-40 years have

statistically more important higher showings on the subscale of secondary traumatic stress ($p < 0.05$). Based on the data from literature, higher secondary traumatic stress indicators and lower readings in both other subscales demonstrate that an employee is subjected to a negative experience at work, which can be primary trauma, danger, or secondary trauma. It is a possibility that these people also suffer from the symptoms of depression (Stamm, 2010). It can be related to the results of Bek's Depression Inventory where nurses with a longer work experience had higher average indicators on the somatically productive subscale.

The burnout subscale and the secondary traumatic stress subscale do not have any significant differences statistically between groups of nurses from various fields of work. It must be noted that the average indicators for that mental-health nurses on the compassion satisfaction subscale are statistically lower in comparison with all the other groups of nurses ($p < 0.01$), which can be explained with the peculiarities of work of mental-health nurses.

Correlations of the psychosocial aspects of the professional quality of life. By making the correlation analysis of Maslach's Burnout Inventory between the selected nurses ($n=281$), Bek's Depression Inventory, Spielberger's anxiety scale and the results of professional quality of life scale, it was concluded that, the most important positive correlations are found between the subscale of emotional exhaustion of Maslach's Burnout Inventory and Bek's Depression Inventory ($r=0.55$; $p < 0.01$). Although literature offers different perspectives about the correlation of depression with the burnout syndrome, nonetheless, the burnout syndrome is frequently associated with depression, anxiety, back pain, insomnia and memory disorders (Laschinger, & Grau, 2012).

Glass and McKnight conducted a research by surveying 4800 respondents regarding burnout and depression, and came to a conclusion that 25.0% respondents have both, emotional exhaustion component, and

depression, on the other hand, depersonalization and personal achievements component combined with depression is found only in 10.0% of all cases. Conclusions were made based on what has been said, that depression has a close connection with one of the components of burnout symptoms, namely, the emotional exhaustion, on the other hand, connection with other components is not so close (Schaufeli, & Enzmann, 1998).

It must be noted that also (Oswin, 1978; as mentioned in Schaufeli, & Enzmann, 1998) connects the burnout syndrome with depression. He described the “Professional Depression Syndrome” of nurses.

The literature offers (Bratis et al., 2009) data about the analysis of correlation among the selected nurses (n=95), where following correlations were found between personal achievements subscale of Maslach Burnout Inventory and Beck Depression Inventory $r=-0.30$ ($p<0.01$) and between the depersonalization subscale of Beck Depression Inventory and Maslach Burnout Inventory $r=0.37$ ($p<0.01$).

The correlation between the emotional exhaustion of Maslach Burnout Inventory and the subscale of the situational anxiety is ($r=0.47$; $p<0.01$), as well as the subscale of the features of anxiety is ($r=0.52$; $p<0.01$), and they are evaluated as statistically important, average close.

The indicators of emotional exhaustion subscale of Maslach Burnout Inventory also correlate with the indicators of depersonalization subscale from the same survey ($r=0.51$; $p<0.01$).

Statistically important correlations between the other subscales of Maslach Burnout Inventory were not found.

These data can be compared with the results (n=141) of a survey carried out among nurses in the hospital of the University of Antalya (Turkey) where the correlations between the subscales of emotional exhaustion and depersonalization are statistically important, average close ($r=0.58$; $p<0.05$), however, the correlations between the subscales of personal achievement

reduction and depersonalization are statistically important – negative ($r=-0.43$; $p<0.05$), but between the subscales of personal achievement reduction and emotional exhaustion - $r=-0.47$ ($p<0.05$) (Alimoglu, & Donmez, 2005).

Similar correlations between the indicators of Maslach Burnout Inventory subscales of emotional exhaustion can also be found among the published data from other authors, statistically important, average close, positive, for example, among a selection of 62 nurses (Tselebis et al., 2001) $r=0.60$ ($p<0.05$) and 401 nurses (Van Bogaert et al., 2009) $r=0.45$ ($p<0.05$).

The indicators of the subscale of emotional exhaustion of Maslach's Burnout Inventory also correlate with the subscale of professional life quality ($r=0.66$; $p<0.01$) and secondary traumatic stress subscale ($r=0.54$; $p<0.01$).

Sabo considers that there is a correlation between burnout and exhaustion due to compassion; nurses who have developed burnout have a higher risk to develop compassion fatigue (Sabo, 2006).

Significant correlations have been found between the indicators of compassion satisfaction subscale on the professional life quality scale and indicators of burnout subscale ($r=-0.55$; $p<0.01$), the indicators of secondary traumatic stress and burnout subscales are ($r=0.60$; $p<0.01$). The data can be compared with a research carried out in the USA where 171 clinical social-workers were surveyed by using the professional life quality scale (Thomas, Otis, 2010). The correlation between the subscales of the secondary traumatic stress and burnout were $r=0.65$ ($p<0.01$), between compassion satisfaction and burnout $r=-0.73$ ($p<0.01$), but between compassion satisfaction and secondary traumatic stress $r=-0.37$ ($p<0.01$) (Thomas, Otis, 2010).

Correlations were found between the subscale of burnout of the professional quality of life scale and Beck's Depression Inventory ($r=0.53$; $p<0.01$). The indicators of the subscale of secondary traumatic stress of the professional quality of life scale correlate with Beck Depression Inventory results ($r=0.45$; $p<0.01$) and anxiety indicators ($r=0.46$; $p<0.01$).

It can be concluded that among selected nurses there exist correlations between the components of emotional exhaustion syndrome and depersonalization, namely, nurses who have more pronounced emotional exhaustion, have a risk of also having a higher degree of depersonalization.

Also, there exist correlations between the component of emotional exhaustion burnout syndrome, depression and anxiety – nurses who have more pronounced emotional exhaustion, typically have higher readings of depression and anxiety.

There exist correlations between the components of burnout syndrome emotional exhaustion and secondary traumatic stress level, nurses with higher readings of emotional exhaustion, have higher secondary traumatic stress level readings. Nurses with higher secondary traumatic stress indicators tend to have higher depression and anxiety.

There exists negative correlation between the level of compassion satisfaction and burnout; it means that nurses who have higher compassion satisfaction indicators tend to have a less pronounced burnout. However, nurses with higher indicators on the subscale of compassion satisfaction tend to have higher showings in the personal achievement subscale of Maslach Burnout Inventory, which indicates a less pronounced burnout.

Nurses who have a more pronounced compassion fatigue (burnout and secondary traumatic stress), tend to have a higher anxiety, higher depression and more prominent emotional exhaustion, at the same time, correlation between the secondary traumatic stress and depersonalization have not been found.

The necessity of supervisions in the nurse practice. Analyzing the answers of nurses (n=241) about the necessity of supervisions in the nurse practice, it can be concluded that the majority of the respondents (59.8%), up until the procedure of the survey did not know about supervisions, hence, it is not surprising that 95.5% of the respondents were not present in supervisions

which are specifically devised for nurses. As a comparison, the data compiled in Great Britain can be mentioned where the survey which was carried out in Wales revealed that 73.0% of nurses who work in mental-health institutions have experience in clinical supervisions at current work place and 40.0% have acknowledged similar experience at previous work place (Edwards, Burnard, Hannigan, Cooper, Adams, Juggessur, Fothergil, & Coyle, 2006).

Evidence found in the literature also present clinical supervisions in the practice of nurses who practice at mental-health institutions, occupational health and occupational health nursing, general practice, outpatient-care and surgical-care (Sloan, & Watson, 2002). In Latvia, supervisions take place for psychologists, psychotherapists, as well as social workers (Āboltiņa, 2010). It must be noted that at first, the clinical supervision among practitioner nurses was developed for mental-health nurses in the USA and Great Britain, however, today the adaption of clinical supervisions have been broadened in relation to other fields of medical-care (Brunero, & Stein-Parbury, 2007).

Evidence found in the literature (Awa et al., 2010) demonstrates that employees, who are present in prevention programs, have less symptoms of stress than those who do not participate. The clinical supervision, as one of the preventive measures (Platt Koch, 1986), is focused to expand the knowledge of a practicing professional; it helps to improve clinical skills, helps to develop autonomy and self actualization as a professional.

A short description of supervision was included in the questionnaire for educational purposes, which allowed the respondents to understand the questions about this issue more clearly. The majority of surveyed nurses (93.4%) consider that supervisions are necessary.

CONCLUSIONS

1. Within the framework of the dissertation, the Professional quality of life scale was translated and adapted for the selected nurses in Latvia, as well as the average indicators of the professional life quality and its psychological aspects were established. Professional quality of life scale is usable for further research in Latvian nurses' sample.

2. The surveyed nurses, as several of the most important and influential factors of psychosocial aspects of the professional quality of life, mentioned the risk of an infection, inadequate salary and emotionally intense work with people.

3. Even though the majority of the respondents (95.5%) were not present in supervisions for the last five years, nonetheless, 93.4% respondents considered supervisions to be necessary in the nursing practice.

4. There are statistically significant correlations among the selected nurses between the psychosocial aspects of the professional quality of life:

- Nurses who have a more pronounced emotional exhaustion, also tend to have a greater degree of depersonalization, have typically higher indicators of depression and anxiety, as well as higher indicators of secondary traumatic stress,
- Nurses with higher secondary traumatic stress indicators tend to have higher depression and anxiety,
- Nurses who have higher compassion satisfaction indicators tend to have a less pronounced burnout,
- Nurses who have a more pronounced compassion fatigue (burnout and secondary traumatic stress), tend to have a higher anxiety, higher depression and more prominent emotional exhaustion, at the same time, correlation between the secondary traumatic stress and depersonalization have not been found.

5. There exist statistically significant differences between the psychosocial aspects of the professional quality of life for the selected nurses, depending on age, work experience, professional profile:

- Nurses from the age group of 51-60 have a more distinctive emotional exhaustion in comparison with nurse from the age group of 41-51, as well as higher indicators of secondary traumatic stress when comparing with nurses from the age of 21-30 and 41-50,
- Nurses with work experience of 31-40 years have a more prominent emotional exhaustion in comparison with nurses who work for 11-30 years, higher depression indicators (somatic subscale) in comparison with nurses who work in their profession for 20 years, more pronounced anxiety (both, state and features), in comparison to nurses who work for 20 years and more, higher indicators of secondary traumatic stress than nurses who work for up to 10 years,
- Nurses with work experience for up to 10 years have lower indicators of personal achievements in comparison to nurses who work for 11-20 years,
- Operating room nurses have higher situational anxiety indicators in comparison to nurses who work in outpatient-care and mental-health institutions,
- Mental-health nurses have lower indicators of compassion satisfaction in comparison with outpatient-care, surgical-care and operating room nurses, and nurses from other fields of work, as well as have lower personal achievement indicators than surgical-care, operating room and nurses from other sectors,
- Child-care nurses have a more prominent emotional exhaustion in comparison with nurses who work in outpatient-care, more pronounced depersonalization when comparing with outpatient-care

and operating room nurses, as well as lower personal achievement indicators in comparison with outpatient–care nurses,

- Medical-care nurses and nurses who work in other fields, have more distinctive emotional exhaustion in comparison with outpatient-care and mental-health nurses, as well as more prominent depersonalization when comparing with outpatient-care, mental-health, surgical-care and operating room nurses, and lower indicators in personal achievement dimension, in comparison with outpatient-care, surgical-care and operating room nurses,
- Nurses who work in other areas of work (this group combines all the nurses from various sectors of work who did not fit into any of the seven basic specialties for nurses or did not make a sufficiently quantitative subgroup in order to represent it), possess more pronounced depersonalization in comparison with nurses who work in outpatient-care and operating room, as well as lower readings in the personal achievement dimension, when comparing with medical-care, surgical-care and nurses who work in operating rooms.

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