

WCPCG 2014

Stress Coping Mechanisms and Professional Burnout Among Latvian Nurses

Liana Deklava^{a*}, Kristaps Circenis^a, Inga Millere^a

^a Rīga Stradiņš University, Faculty of Nursing, Anniņmuižas bulvāris 26a, Rīga LV- 1067, Latvia

Abstract

The reason of burnout is the negative influence of job stress. Due to burnout nurses work may become less productive, employees are absent due to illness, as well as the fluctuation of staff increases. It shows the need to develop adaptive coping strategies among nurses. The aim of the study was to find out stress coping mechanisms and burnout presence among nurses practicing in Latvia. The instruments which used for data collection: demographic questionnaire, R.S. Lazarus and S. Folkman's The Ways of Coping Scale and Maslach Burnout Inventory. The Ways of Coping Scale completed by 484 nurses working in healthcare institutions in different regions of Latvia in the age range from 21 to 66 years. The highest values have: planful problem-solving, self-controlling and positive reappraisal, accepting responsibility and seeking social support; while the lowest values can be seen in two scales – confrontive coping and escape/avoidance. The prevailing ways of coping stress in the sample are planful problem solving, self-controlling and positive reappraisal. Maslach burned out inventory which was completed by 587 practicing nurses. Age range of respondents was from 22 to 68 years. Descriptive statistical parameters for Maslach Burnout Inventory by subscales: 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).

© 2014 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

Peer-review under responsibility of the Academic World Education and Research Center.

Keywords: Stress coping; Burnout; Nurses.

1. Introduction

Nurses who work at health care institutions need to face many distress situations daily, at the same time, they are 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 (Circenis, Millere, 2011).

* Liana Deklava. Tel.: +371 29475097

E-mail address: Liana.Deklava@rsu.lv

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 (Tselebis, Moulou, & Ilias, 2001). Therefore, the typical psychosocial issues for 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). The most frequently mentioned stress factors for nurses in study performed in Latvia were "risk of infection", "Inadequate remuneration for work", "Emotionally intensive work with people", "Large (inadequate) amount of work" and "Intensive work" (Circenis, Millere, 2012).

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).

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.

Nurses constitute the major part of healthcare personnel; the standard of nurse's profession defines common skills in the field and specific professional skills which constitute in nurse's professional behaviour. The given study examines such personality factors which develop during a person's lifetime; they are influenced by the process of socialization, life experience, and environmental conditions. They are the factors which may change or it is possible to alter those thus developing particular qualities. These factors include: ways of coping stress, emotional intelligence, the locus of subjective control. Stress coping strategies are they ways of reducing internal anxiety and discomfort which have been acquired and applied by a person depending on particular personal quality (Folkman, Lazarus, 1988).

In Latvia, the provision of human resources in the healthcare has decreased since 2008. It is alarming that in 2010, only 55% of newly-graduated doctors and 16% of newly-graduated nurses started to work at medical institutions in Latvia, while 4% of doctors and 3% of nurses left their jobs in the industry (Keris, 2011).

The healthcare workforce migration to other European countries has become a major problem in recent years. The majority of nurses chose the United Kingdom, Ireland, the USA, Italy and Norway as their destination countries. A considerable number of them finish their medical studies and start working in other fields (Karaškevica, 2010). The internal and external migration of medical professionals has been observed more frequently. Its causes may be related to both the conditions related to work environment and personality factors.

2. Objective

The aim of the study was to find out stress coping mechanisms and burnout presence among nurses practicing in Latvia.

3. Methods

Research performed using quantitative method. The instruments which used for data collection: demographic questionnaire, Maslach Burnout Inventory (Maslach, Leiter) and Lazarus and Folkman's The Ways of Coping Scale (Folkman & Lazarus, 1998). To measure ways of coping we used R.S. Lazarus and S. Folkman's The Ways of Coping Scale (Folkman & Lazarus, 1998). The instrument consists of eight scales (Folkman and Lazarus, 1998). Each of the scales determine way of coping, which has been applied to an individual's life experience as it had been identified by each of the respondents. The mean values of all scales (ways of coping) and the mean values of coping strategies were calculated. The division of scales and the descriptive statements are the following - Problem-oriented coping is characterized by the following ways of coping: Confrontive coping, Planful problem-solving, Seeking social support. Emotion-oriented coping is characterized by the following ways of coping: Distancing, Self-controlling, Accepting responsibility, Escape or avoidance, Positive reappraisal. 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). It was used in 473

studies, and 538 dissertations from 1978. till 1996. (Shaufeli, & Enzmann, 1998). 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 data processing was performed using the SPSS 18.0 programme. The data analysis was carried out using Spearman's correlation, Student's t-test, mono-factorial dispersion analysis, LSD Post Hoc test.

4. Results

The Ways of Coping Scale completed by 484 nurses working in healthcare institutions in different regions of Latvia in the age range from 21 to 66 years, the average age in the sample is 42 years.

Descriptive statistics indicators indicate that the mean values of coping strategies in the sample are similar – problem-oriented coping is 1.47 with SD 0.35 and emotion-oriented coping is 1.45 with SD 0.30 (min= 0; max= 3). Assessing the data obtained from the whole study sample regarding coping scales it could be noted that the mean values of the scales lie within 1. 15 - 1. 70 intervals. The following scales have the highest values: planful problem-solving (M=1.70, SD=0.47), self-controlling and positive reappraisal (M=1.64, SD=0.44), accepting responsibility (M=1.61, SD=0.48) and seeking social support (M=1.58, SD=0.48); while the lowest values can be seen in two scales – confrontive coping (M=1.15, SD=0.42) and escape/avoidance (M=1.18, SD=0.43).

Table 1. Mean values for Ways of Coping in The Sample and Dynamics in Different Age Groups

Ways of coping	Sample Indicators (n 484)		Age group 21-35 years (n 139)		Age group 36-51 years (n 258)		Age group 52-76 years (87)	
	M	SD	M	SD	M	SD	M	SD
Confrontive coping	1,15	0,42	1,23	0,40	1,12	0,43	1,12	0,39
Planful problem-solving	1,70	0,47	1,70	0,48	1,67	0,47	1,77	0,46
Distancing	1,29	0,45	1,30	0,41	1,24	0,47	1,41	0,39
Self-controlling	1,64	0,44	1,65	0,45	1,63	0,43	1,68	0,43
Escape or avoidance	1,18	0,43	1,23	0,44	1,15	0,45	1,16	0,37
Accepting responsibility	1,61	0,48	1,59	0,44	1,60	0,49	1,74	0,51
Positive reappraisal	1,64	0,44	1,61	0,44	1,64	0,40	1,69	0,45
Seeking social support	1,58	0,48	1,61	0,44	1,57	0,49	1,54	0,52

Assessment of the data regarding ways of coping in the age group 21-35 years indicates that the mean values of coping scales lie within M=1.23 - M=1.70 interval. They are higher in the following scales - planful problem-solving (M=1.70, SD=0.48), self-controlling (M=1.65, SD=0.45), seeking social support and positive reappraisal (M=1.61, SD=0.44) as well as accepting responsibility (M=1.59, SD=0.44). The lowest values are displayed in two scales – escape/avoidance (M=1.23, SD=0.44) and confrontive coping (M=1.23, SD=0.40).

The mean values of coping scales for the age group 36-51 years are similar to the values in the age group 21-35 years. Both the highest values and the lowest statistical indicators are characteristic to equivalent scales. The highest values- planful problem-solving (M=1.67, SD=0.47), positive reappraisal (M=1.64, SD=0.40), self-controlling (M=1.63, SD=0.43), accepting responsibility (M=1.60, SD=0.49) and seeking social support (M=1.57, SD=0.49). The least frequently used ways of coping in this age group are confrontive coping (M=1.12, SD=0.43) and escape/avoidance (M=1.16, SD=0.37). Comparing the obtained results with the youngest respondents' age group (21-35 years), it is possible to note the following trends: firstly - there are present previously more frequently applied ways of coping although their mean values decrease; secondly - the most considerable difference in values can be observed in the scale of confrontive coping, the scale of escape/avoidance and the scale of distancing, which may indicate that these ways of coping in this age group are less commonly used than in the youngest age group.

The highest and the lowest in the age group of the oldest respondents (52-76 years) repeatedly show similar scales in ways of coping. It should be noted, that, in this age group, there are the highest values in the scales which predominate in younger age groups, particularly this relates to two scales - planful problem-solving ($M=1.77$, $SD=0.46$) and accepting responsibility ($M=1.74$, $SD=0.51$), which may indicate that these ways of coping are more frequently used as the age increases; this assumption could be also attributed to the scale of distancing, where the values in this age group are the highest ($M=1.41$, $SD=0.39$).

Maslach burned out an inventory which was 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. 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. Descriptive statistic parameters of Maslach Burnot Inventory (n=587)

	MBI emotional exhaustion subscale	MBI depersonalization subscale	MBI reduced sense of personal accomplishment
Mean	22.75	7.52	34.57
Std. Deviation	10.75	5.30	8.22
Minimum	0	0	9
Maximum	53	30	48

To find out whether there are statistically significant differences between different age groups averages were calculated Mann-Whitney U criterion, as well as between nurses with different work experience in the profession and between different professional profiles of the respondents. The statistically significant differences observed in the emotional exhaustion subscale averages between age group of 41-50 years and 51-60 years. Group of nurses aged 51-60 years was statistically significantly higher average emotional exhaustion subscale ($p<0.05$). Other subscales statistically significant differences were not found.

Assessing obtained results, it was found out that there are present are statistically significant relationship among ways of coping and burnout. There are statistically significant relationship between Avoidance and Emotional Exhaustion ($r=0,37$, $p<0,01$), Depersonalization ($r=0,25$, $p<0,01$), Personal achievement reduction ($r=-0,21$, $p<0,05$); between Confrontive coping and Emotional Exhaustion ($r=0,24$, $p<0,01$), Depersonalization ($r=0,23$, $p<0,01$); between Accepting responsibility and Emotional Exhaustion ($r=0,23$, $p<0,05$); between Positive reappraisal and Personal achievement reduction ($r=0,23$, $p<0,05$).

5. Discussion

The results of coping in the sample show that the emotion-oriented and problem-oriented coping strategies are employed equally, as there are minimal differences in their mean values. The prevailing ways of coping stress in the sample, after assessment of the indicators in the scales, are planful problem solving (characterizes problem-oriented coping strategy), self-controlling and positive reappraisal (characterizes emotion-oriented coping strategy), which may indicate that these ways of coping are used by the sample more frequently. Similar results were obtained (Healy & McKay, 2010) in the study where the leading coping strategies among nurses were identical to the results of the given study, where planful problem solving was the most frequently used WCS. Chang (Chang 2007), in his study of hospital nurses in Australia and new Zealand, also has pointed out that planful problem solving is the most

common coping strategy which is followed by self-controlling and seeking social support. The goal of self-controlling is to regulate emotions and behaviour while seeking social support is characterized by thriving for information, real (tangible) and emotional support (Folkman & Lazarus 1988). The acquired data correspond to the results which were obtained in the study on coping stress in Australian nurses when it was discovered that the applied ways of coping are seeking support, self controlling and positive reappraisal (Lim, Bogossian, Ahern, 2010). The tendency which was revealed by the study concerning frequent use of positive reappraisal among nurses is consistent with the earlier studies by Folkman, Lazarus, Pimly and Novachek in which it was concluded that there are coping differences in gender cross-section - women are more likely to use positive reappraisal (Parker, Endler, 1992).

The total sample data indicates that the most frequently used way of coping is “planful problem-solving” ($M=1.70$, $SD=0.47$), which characterizes problem-oriented WCS, which can be evaluated as positive parameters of the sample, as, according to the research data (Chang 2006), mental health indicators are higher in those nurses who apply problem-oriented stress coping strategy. Rodhem and Bell’s (Rodham & Bell 2002) several-year research results, in their turn, provide evidence that the nurses who had chosen problem-oriented coping were able to successfully resist and effectively overcome stress and displayed higher job satisfaction. However, there are two high mean scores for the WCS which characterize emotion-oriented WCS - “self-controlling” and “positive reappraisal” ($M=1.64$, $SD=0.44$). That it could be possible to assume that the nurses employ both SCS. Nurses’ tendency to use emotion-oriented stress coping strategy is associated with their psychological competences, the corresponding to the nurse’s role self-image, professionally significant behaviour and personality traits (Shirey, 2006). Analysing WCS mean scores over age groups, it is possible to draw a conclusion, that the spectrum of the WCS remains the same in the sample, although younger nurses make use of one more significant WCS - „seeking social support”, which may be connected with the feeling of insecurity, lack of life and work experience in comparison to older nurses. Chang (Chang 2007) also stresses out the significance of seeking social support as it was one of the most frequently used WCS among Australian nurses. According to his views, the patient care should be carried out evaluating social support as stress coping strategy. Social support is equally significant to the nurses’ perception of stress, where it serves as a “buffer”. In case of lack of social support, nurses can experience stress to greater extent. Effectiveness of social support as one of the strategies is ambiguous, because in some studies it is more classified as problem-oriented coping strategy (Tully, 2004). With the reference to Folkman & Lazarus (1980), seeking social support may be considered as either problem-oriented or stress-oriented coping strategy depending on the situation. Significance of social support has also been revealed in other studies, where nurses expressed the necessity of greater support from direct manager and organization (Judkins & Ingram, 2002). The following ways of coping are less characteristic to the sample: confronting coping and escape/avoidance. Taking into account the above mentioned data, it is possible to conclude that the nurses more frequently apply analytical approach to coping, make deliberate efforts to change the problem, to control their feelings, behaviour and to generate positive results focusing on their personal growth. Besides that, efforts to avoid the problem, showing a certain level of hostility and risk-taking are less frequently used.

The overall average MBI indicators of the selected nurses are comparable with the data accessible in the literature. Averages for Maslach Burnout Inventory by subscales among Latvian surgical care nurses sample (Circenis et al., 2011) were comparable with current study - for Emotional Exhaustion subscale - 23,49 ($SD=10,82$), for Depersonalization subscale was 6,65 ($SD=5,36$) and for rank of personal success subscale - 36,73 ($SD=6,97$). The highest indicators of emotional exhaustion, comparing with the data of the selected nurses, are found in the research carried out in the Hungary and Greece (Kovacs et al., 2010; Bratis et al., 2009), on the other hand, the lowest indicators are found in research done in Poland and Belgium (Van Bogaert et al., 2009; Ksiazek et al., 2011). 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 Poland and Belgium (Van Bogaert et al., 2009; Ksiazek et al., 2011). 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 studies (Van Bogaert et al., 2009; Ksiazek et al., 2011), which demonstrate that the selected nurses are more prone to professional development and growth.

6. Conclusions

The Maslach burnout inventory results shows burnout presence in all three dimensions - Emotional Exhaustion, Depersonalization and Personal achievement reduction. The nurses equally frequently employ problem-oriented and emotion-oriented strategies of coping stress, besides that, planful problem solving, selfcontrolling and positive reappraisal are the most often applied ways of coping stress, while confrontive coping and escape/avoidance are less common. Results indicate that more nurses use the “escape / avoidance” and confrontive coping as WCS, the higher their Emotional Exhaustion. On the other hand, is more typical of depersonalization which nurses use avoidance and confrontive coping.

References

- Bļodniece R. (2000). Par medicīniskās aprūpes kvalitātes kontroli. *Latvijas ārsts*, 6: 12.-13.
- Bratis D., Tselebis A., Sikaras C., Moulou A., Giotakis K., Zoumakis E., & Ilias I. (2009). Alexithymia and its association with burnout, depression and family support among Greek nursing staff. *Human Resources for Health*, 7,72–75.
- Browning L., Ryan C. S., Thomas S., Greenberg M., & Rolniak S. (2007). Nursing specialty and burnout. *Psychology, Health & Medicine*, 12(2), 248–254.
- Buiķe I., Baķe M.A. (2006). Latvijas veselības aprūpes darbinieku darbaspēju pašvērtējums un tā saistība ar darba vides riska faktoriem pēc 2002. gada un 2006. gada aptauju datiem. *Medicīnas bāzes zinātnes. RSU Zinātniskie raksti*. 274.-284.
- Chang E.M. (2007). A survey of role stress, coping and health in Australian and New Zealand hospital nurses. *International journal of nursing studies*, 44(8):1354-62.
- Circenis K., Millere I. (2011). Compassion fatigue, burnout and contributory factors among nurses in Latvia. *Procedia-Social and Behavioral Science Journal*; Vol. 30 pp. 2042-2046.
- Circenis K., Millere I. (2012). Stress related work environment factors: nurses survey results. *International Journal of Collaborative Research on Internal Medicine & Public Health*. Vol. 4 No. 6 (2012) pp. 1150-1157.
- Circenis K., Millere I., Deklava L. (2011). Stress-related Psychological Disorders Among Surgical Care Nurses in Latvia. *Review of Global Medicine and Healthcare Research*, 2, 2, (131-138).
- Cordes C. L., & Dougherty T. W. (1993). A Review and an Integration of Research on Job Burnout. *The Academy of Management Review*, Vol. 18, No. 4, 621–656.
- Deklava L., Millere I., Circenis K. (2011). Stress coping among nurses in Latvia. *HealthMed, Journal of Society for development in new net environment in B&H*, 5, 6, (1468 - 1473).
- Demir A., Ulusoy M., & Ulusoy M. F. (2003). Investigation of factors influencing burnout levels in the professional and private lives of nurses. *International Journal of Nursing Studies*, 40, 807–827.
- Folkman S., Lazarus R. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21: 219-239.
- Folkman S., Lazarus R. (1998). Ways of Coping Questionnaire Permissions Set Manual. Palo Alto, CA: Mind Garden.
- Hanrahan N. P., Aiken L. H., McClaine L., & Hanlon A. L. (2010). Relationship between Psychiatric Nurse Work Environments and Nurse Burnout in Acute Care General Hospitals. *Issues in Mental Health Nursing*, 31, 198–207.
- Healy C.M., Mc Kay M.F. (2000). Nursing stress: the effects of coping strategies and job satisfaction in a sample of Australian nurses. *Journal of advanced nursing*, 31(3):681-8.
- Hochwalder J. (2007). The psychosocial work environment and burnout among Swedish registered and assistant nurses: The main, mediating, and moderating role of empowerment. *Nursing and Health Sciences*, 9, 205–211.
- Judkins, S., K., & Ingram M. (2002). Decreasing stress among nurse managers: A long term solution . *Journal of Continuing Education in Nursing*; 33(6): 259-264.
- Ksiazek I., Stefaniak T. J., Stadnyk M., & Ksiazek J. (2011). Burnout syndrome in surgical oncology and general surgery nurses: A cross-sectional study. *European Journal of Oncology Nursing*, 15, 347–350.
- Laschinger H. K. S., & Grau A. L. (2012). The influence of personal dispositional factors and organizational resources on workplace violence, burnout, and health outcomes in new graduate nurses: A cross-sectional study. *International Journal of Nursing Studies*, 49, 282–291.
- Lim J., Bogossian F., Ahern K. (2010). Stress and coping in Australian nurses: a systematic review. *International nursing review*; 57(1):22-31.
- Maslach C., & Leiter M. P. (1997). The truth about burnout. How organizations cause personal stress and what to do about it. San Francisco: Jossey-Bass.
- Parker J., Ender N. (1992). Coping with coping assessment: a critical review. *European Journal of personality*; 6: 321-344.
- Rodham K., & Bell J. (2002). Work stress: An exploratory study of the practices and perceptions of female junior healthcare managers. *Journal of Nursing Management*; 10(1): 5-11.
- Schaufeli W. B., & Dierendonck D. (1995). A cautionary note about the cross-national and clinical validity of cut-off points for the Maslach burnout inventory. *Psychological reports*, 76, 1083–1090.

- Schaufeli W. B., & Enzmann D. (1998). *The Burnout Companion to Study and Practice: A Critical Analysis* (Issues in Occupational Health Series).
- Shirey M.R. (2006). Stress and Coping in Nurse Managers: Two Decades of Research. *Nursing Economics*; 4: 193-211.
- Tselebis A., Moulou A., & Ilias I. (2001). Burnout versus depression and sense of coherence: Study of Greek nursing staff. *Nursing and Health Sciences*, 3, 69–71.
- Tully A. (2004). Stress, sources of stress and ways of coping among psychiatric nursing students. *Journal of psuchiatic and mental health nursing*; 11(1):43-7.
- Van Bogaert P., Meulemans H., Clarke S., Vermeyen K., & Van de Heyning P. (2009). Hospital nurse practice environment, burnout, job outcomes and quality of care: test of a structural equation model. *Journal of Advanced Nursing*, 65(10), 2175–2185.