

Fatigue and burnout among Latvian nurses

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Abstract

The quality of nursing is one of the most important factors in healthcare. Fatigue and burnout are common complaints among nurses, due to which they may become less productive and make more professional mistakes. The aim of this study is to find burnout and fatigue and their correlation among nurses practicing in Latvia. Research was performed using Maslach's Burnout Inventory (MBI) assessed emotional exhaustion, de-personalisation and the lack of personal achievement. To measure fatigue, the Checklist Individual Strength (CIS) Questionnaire Study was used; the sample included 190 registered and practicing nurses working both in the medical and surgical units in hospitals. The respondents were aged 23–74 years. Burnout and fatigue were measured and correlations were calculated. The data showed that there are significant correlations between the MBI and CIS subscales. The results indicate that fatigue and burnout are common and are strongly associated in the nursing population in Latvia.

Keywords: Fatigue, burnout, nurses, Latvia.

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1. Introduction

Nurses on a daily basis face many distressful situations; they often work night shifts and are constantly under emotional tension, physical and mental fatigue (Circenis, Millere & Deklava, 2011). Fatigue at work is a normal everyday experience. However, in the case of severe fatigue, it may affect a person's performance in the occupational as well as home setting. Moreover, severe long-term fatigue may lead to sick leave and work disability (Beurskens et al., 2000).

Fatigue frequently results in distorted perceptual skills, reasoning abilities, judgement and decision-making capabilities. Such distortions manifest themselves through general slower brain functioning, causing delayed reaction times, memory deficits and a decrease in cognitive abilities such as logical reasoning and concentration, which are of paramount importance in the nursing occupation (Samaha, Lal, Samaha & Wyndham, 2007). Fatigue can seriously affect the work performance of nurses (Lin, Tsai, Chen & Koo, 2013).

There is an essential difference between acute fatigue and long-term fatigue. Acute fatigue is characterised by reversibility, task specificity and the functional use of compensation mechanisms. Acute fatigue is a normal phenomenon that disappears after a period of rest, when tasks are switched (Beurskens et al., 2000). Long-term fatigue is irreversible, not task specific and the compensation mechanisms that were useful in reducing acute fatigue are no longer effective.

Chronic fatigue impairs the ability of an individual to meet every day work demands (Samaha et al., 2007) and chronically fatigued individuals are hence at a greater risk of being involved in occupational accidents (Swaen, Van Amelsvoort, Bultmann & Kant, 2003). Some studies suggest that anxiety and depression are positively associated with chronic fatigue in nurses. Compared with acute fatigue, chronic fatigue is associated with more substantial consequences on worker health, wellbeing and work performance. Longer shift lengths and increased hours worked per week are associated with higher levels of physical and total fatigue, and with acute and chronic fatigue (Barker & Nussbaum, 2011).

Past research suggests that individual psychological differences in anxiety, mood or locus of control exert an influence on fatigue and task performance (Samaha et al., 2007). The study, which involved 210 nurses from three eldercare facilities in Australia, showed a strong and positive association between trait anxiety and chronic fatigue (Samaha et al., 2007). Chronic fatigue had a positive relationship of moderate-to-large impact size with anxiety and mood disturbance (Samaha et al., 2007); as we know from previous studies, anxiety and depression are strongly related to more profound burnout, especially in the emotional exhaustion subscale (Circenis et al., 2011).

Sustained fatigue caused by work may lead to a chain of symptoms which leave a negative impact on the quality of professional actions and on the physical life of a nurse himself/herself (Aldwin, 2000; Tselebis, Moulou & Ilias, 2000). Therefore, the typical psychosocial issues for nurses are the burnout syndrome and compassion fatigue. Burnout is a psychological syndrome that involves a prolonged response to chronic interpersonal stressors on the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment (Leiter & Maslach, 2009). The burnout syndrome is mentioned as one of the main health issues concerning work among the professionals in healthcare (Hochwalder, 2007). Some authors (Beurskens et al., 2000) suggest that burnout is a mental state which can be regarded as an extreme expression of long-term fatigue. The signs of burnout tend to be more mental than physical. They can include feelings of powerlessness, hopelessness, emotional exhaustion, detachment, isolation, irritability, frustration, being trapped, failure, despair, cynicism and apathy. At the same time some physical symptoms are common: headaches sleep problems, gastrointestinal problems, chronic fatigue, muscle aches, high blood pressure, frequent colds and sudden weight loss or gain (Maslach & Leiter, 1997). The aim of this study was to find out burnout and fatigue presence among nurses practicing in Latvia, as well as the correlation between these parameters.

2. Methods

Research was performed using the quantitative method. The instruments used for data collection were Checklist Individual Strength (CIS) Scale, Maslach Burnout Inventory (MBI) and a demographic questionnaire. The study sample included 190 registered nurses who were working in hospitals and medical and surgical units.

The CIS Questionnaire (CIS 20 R) (Beurskens et al., 2000) was used to measure chronic fatigue. CIS consists of 20 statements rated on a 7-point scale for assessing the degree of fatigue experienced during the previous 2 weeks. Higher total scores indicate greater levels of subjective fatigue, reduced motivation, more difficulty concentrating and lowered activity (Beurskens et al., 2000). CIS has been validated in the healthy working population, and can discriminate between fatigue levels in different occupational groups (Beurskens et al., 2000). For the translation process, we used the one-way translation approach. To check the reliability of the instrument, the Cronbach's alpha was calculated for each subscale.

MBI (Maslach & Jackson, 1986) was used to measure burnout in this study. The Inventory consists of 22 items phrased as statements about personal feelings and attitudes that are self-scored on a 7-point frequency scale, ranging from 0 (never) to 6 (every day). The three subscales of MBI include emotional exhaustion, depersonalisation and personal accomplishment. High scores on exhaustion and cynicism and low scores on professional efficacy are indicative of burnout. We used the Human Services Survey variant, which was translated in Latvian and adapted by Sanita Aispure in 2002. MBI was used in several previous studies in Latvia (Circenis et al., 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 the Ethics committee of the Riga Stradins University.

Data processing was performed using the Microsoft Excel and SPSS 22.0 statistical software. The Kolmogorov–Smirnov test was used to establish normality of the data. Differences between the groups were analysed using Mann–Whitney U test for nonparametric distributed data. Correlation analysis was performed using Spearman's correlation for nonparametric distributed data. Significance was accepted at $P < 0.05$ and all values are expressed as mean \pm standard deviation for parametric data or median (25 percentile; 75 percentile) for nonparametric data.

3. Results

The participants of the study were 190 nurses working in the medical and surgical departments of several hospitals in Latvia. All the participants were women aged from 23 to 74 years ($M = 44.70$; $SD = 11.60$). The nursing education of the participants was different – nursing school graduates – 35.30%, college education obtained 15.30%, bachelors' degree – 36.80% and masters' degree in nursing – 12.60%. The characteristics of the respondents are given in Table 1.

Table 1. Characteristics of respondents

Parameters	Total	Surgical nurses	Medical nurses	<i>P</i> value*
Total (<i>N</i>)	190	99	91	
Age (years)	44.7 \pm 11.6	45.8 \pm 12.4	43.5 \pm 10.6	0.29
Working hours in weeks (hours)	45.0 (40.0; 59.0)	45.0 (40.0; 52.0)	48.0 (40.0; 60.0)	0.38
Working hours in months (hours)	180.0 (160.0; 230.0)	170.0 (160.0; 210.0)	190.0 (168.0; 240.0)	0.04

*Surgical nurses vs. medical nurses, significance level $P < 0.05$, used Mann–Whitney U test.

As shown in Table 2, there is a statistically significant difference in the workload in a month (in hours) between surgical care nurses and medical care nurses.

Table 2. CIS questionnaire and MBI results

Parameter	Total	Surgical nurses	Medical nurses	<i>P</i> value*
Checklist individual strength				
Subjective feeling of fatigue	27.5 ± 9.5	28.5 ± 10.2	26.4 ± 8.5	0.45
Concentration	14.0 (10.0; 19.0)	15.0 (11.0; 20.0)	13.0 (9.0; 19.0)	0.46
Motivation	13.0 (10.0; 15.0)	13.0 (10.0; 16.0)	13.0 (9.0; 15.0)	0.91
Physical activity	7.5 (4.0; 11.0)	8.0 (5.0; 11.0)	7.0 (4.0; 10.0)	0.08
Maslach Burnout Inventory				
Emotional exhaustion	25.7 ± 10.8	24.8 ± 11.2	26.7 ± 10.5	0.11
Depersonalisation	6.0 (3.0; 11.0)	6.0 (3.0; 11.0)	6.0 (3.0; 11.0)	0.92
Personal accomplishment	36.0 (26.8; 41.0)	35.0 (27.0; 41.0)	36.0 (26.0; 41.0)	0.94

*Surgical nurses vs. medical nurses, significance level $P < 0.05$, used Mann–Whitney U test.

Descriptive statistical parameters of the CIS questionnaire and MBI by subscales are shown in Table 2. There are no significant differences in the MBI and CIS subscales between the two compared groups of respondents.

The reliability statistical parameter Cronbach’s alpha was calculated for all items (0.86) and for each subscale of the CIS questionnaire. The highest Cronbach’s alpha coefficient among subscales was for Fatigue subscale (0.77), while for Concentration subscale it was 0.73 and for Physical activity subscale 0.51. The lowest Cronbach’s alpha coefficient (0.37) was for the Motivation subscale.

Correlation analysis using Spearman’s rank correlation coefficient was performed and the results are shown in Table 3. Positive significant correlation was found between the subscale of Emotional exhaustion of Maslach’s Burnout Inventory and Fatigue subscale of CIS questionnaire ($r = 0.51$; $p < 0.01$).

Table 3. Spearman’s correlation coefficient

Subscales	Concentration	Motivation	Physical activity	Emotional exhaustion	Depersonalisation	Personal accomplishment
Fatigue	0.59**	0.56**	0.44**	0.51**	0.22**	-0.19**
Concentration		0.45**	0.61**	0.23**	0.26**	-0.30**
Motivation			0.43**	0.28**	0.22**	-0.29**
Physical activity				0.12	0.26**	-0.22**
Emotional exhaustion					0.31**	-0.17*
Depersonalisation						-0.30**

* $P < 0.05$, ** $P < 0.01$, Spearman’s correlation coefficient ($N = 190$).

4. Discussion

The aim of this study was to find the presence of burnout and fatigue among nurses practicing in Latvia, as well as the correlation between these parameters. The main results of this study show that there are no significant differences between the MBI and CIS questionnaire results comparing surgical care nurses and medical care nurses; even the second group of nurses have a higher workload.

Comparing Cronbach's alpha for the CIS questionnaire with data from previous studies (Beurskens et al., 2000; Samaha et al., 2007), we can conclude that our results are lower, but are good or acceptable, except one subscale – motivation subscale. The highest Cronbach's alpha coefficient among subscales was for Fatigue subscale (0.77), which means that we can recommend its use for measuring the subjective feeling of fatigue in future studies.

Analysing relations between parameters, the most significant correlations are founded between MBI Emotional exhaustion subscale and CIS questionnaire Fatigue subscale ($r = 0.51$; $p < 0.01$), which means that respondents who have higher scores in Emotional exhaustion subscale also have higher scores in Fatigue subscale. Positive significant correlation between the CIS questionnaire and the MBI Emotional exhaustion subscale was found in a study in the Netherlands (Beurskens et al., 2000). The results of the study performed in Cyprus indicate that burnout and fatigue are constructs that can be attributed to the stressful clinical settings in which nurses work. Two-thirds of the nurses experienced fatigue very often or often. High burnout scores were more likely to be associated with certain variables such as fatigue, age and job related stress (Raftopoulos, Charalambous & Talias, 2012).

This study has limitations, such as the number of respondents and adaptations of instruments used for measuring fatigue parameters.

In conclusion, the data show that there are statistically significant correlations between emotional exhaustion and fatigue among nurses working in medical and surgical units in Latvia. Our other finding is that there are no significant differences between medical and surgical unit nurses in burnout or fatigue. Further research is needed to explore the fatigue problem in the nursing population (in different areas of practice), as well as its relation to other work-related parameters as burnout, job satisfaction and professional quality of life.

References

- Aldwin, M. C. (2000). *Stress, coping and development: an integrative perspective*. New York, NY: The Guilford Press.
- Barker, L. M. & Nussbaum, M. A. (2011). Fatigue, performance and the work environment: A survey of registered nurses. *Journal of Advanced Nursing*, 67(6), 1370–1382.
- Beurskens, A. J., Bultmann, U., Kant, I., Vercoulen, J. H., Bleijenberg, G. & Swaen, G. M. (2000). Fatigue among working people: Validity of a questionnaire measure. *Occupational and Environmental Medicine*, 57, 353–357.
- 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.
- 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.
- Leiter, M. P. & Maslach, C. (2009). Nurse turnover: The mediating role of burnout. *Journal of Nursing Management*, 17, 331–339.
- Lin, S. C., Tsai, K. W., Chen, M. W. & Koo, M. (2013). Association between fatigue and Internet addiction in female hospital nurses. *Journal of Advanced Nursing*, 69(2), 374–383.
- Maslach, C. & Leiter, M. P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it*. San Francisco, CA: Jossey-Bass.
- Raftopoulos, V., Charalambous, A. & Talias, M. (2012). The factors associated with the burnout syndrome and fatigue in Cypriot, nurses: a census report. *BMC Public Health*, 12, 457-470.

- Circenis, K., Deklava, L., Millere, I., Paparde, A. & Kacare, K. (2017). Fatigue and burnout among Latvian nurses. *Global Journal of Psychology Research: New Trends and Issues*, 7(3), 111-116.
- Samaha, E., Lal, S., Samaha, N. & Wyndham, J. (2007). Psychological, lifestyle and coping contributors to chronic fatigue in shift-worker nurses. *Journal of Advanced Nursing*, 59(3), 221–232.
- Swaen, G. M. H., Van Amelsvoort, L. G. P. M., Bultmann, U. & Kant, I. J. (2003). Fatigue as a risk factor for being injured in an occupational accident: Results from the Maastricht cohort study. *Occupational and Environmental Medicine*, 60 (1), 88–92.
- 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.