

# Work-Related Factors Influencing Burnout Syndrome in Nurses

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Original Article

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## Abstract:

**Objective:** The aim of this study was to quantify the frequency of burnout among Slovak Nurses to shed more light on the associations between the workload and burnout syndrome.

**Design:** cross-sectional design.

**Participants and methods:** A total of 770 Nurses from Slovakia participated in the study. A structured questionnaire with work-related items and Maslach Burnout Inventory were used to collect the data. Descriptive statistics, t-test, and analyses of variance (ANOVA) were calculated.

**Results:** Statistically significantly ( $p \leq 0.05$ ) higher degree of burnout syndrome were identified in Nurses with longer work experience; employed on oncology departments; intensive care units; working in 8 or 12 hour shifts compared with no shifts.

**Conclusion:** Research results suggest that the profession of Nurses should be supported by management aimed at preventing work-related stress in Clinical Practice.

## Introduction

Burnout has been defined as a specific kind of occupational stress among human service professionals, as a result of the demanding and emotionally charged relationships between caregivers and their recipients (Maslach, 2011). Clinical symptoms of burnout syndrome are nonspecific and include tiredness, headaches, eating problems, insomnia, irritability, emotional instability and rigidity in relationships with other people (Kilikova, Sramka, 2006). The level of health and social care is one of the major factors in assessing human society's development (Rakova, Kacmarova, 2014). The Nursing Profession is one of the most demanding and stressful occupations, due to the quantity and diversity of risk factors associated with the work environment and competence (Zamboriova, Stefkova, 2016). The most frequent risk factors of the burnout syndrome are excessive workload such as lack of time; shift work; type of department; organization culture (e.g. relationships among colleagues; role conflicts; etc.), not enough materials and technical equipment. The Nursing Profession is also further complicated by shift work. Working in Intensive Care Units (ICU) can originate stress in Nurses as well. The presence of *burnout syndrome* in critical care Nurses

has been examined in several research studies (Panunto *et al.*, 2013). Critical Care Nurses have heavy workloads, extensive responsibilities, and only limited authority. They must care for unstable patients; carry out procedures accurately; react to extremely urgent matters. Prevention of *burnout syndrome* in the individuals includes applying the Principles of Mental Hygiene (a balanced relationship between stressors and salutors, increased self-confidence, leisure time), with regard to external factors, good interpersonal relationships, social support, satisfactory working conditions, which are the most frequently factors (Maslach, 2011, Simockova, Zamboriova, 2009). The possibility is also to limit the competence of the Nurses (Beresova, 2011). Spiritual anchoring of humans in the area of living values and the environment is an important condition for healthy mental and physical development (Dirgova, Kalanin 2009). The implementation of supervising meetings can be one of the most effective tools for managing emotions related to Nursing Care (Bachrata, Kristova, 2017). **The aim of this study** was to quantify the frequency of burnout among Slovak Nurses and to shed more light on the associations between the work-related characteristics and *burnout syndrome* in Nurses.

## Materials and Methods

This study had cross-sectional descriptive character. 770 registered Nurses completed the Maslach Burnout Inventory (MBI) questionnaire (Maslach, Jackson 1981). There were evaluated length of work experience, shift work, and type of department and type of unites (standard inpatient and intensive care), as work-related characteristics. The respondents answered the questions on-line, on the web page of the Slovak Chamber of Nurses and Midwives, and the web page of World Health Organization, Country Office in Slovakia, and on the web page <http://www.who.sk>. For statistical analyses, descriptive tests, t-tests, and ANOVA with LSD post hoc test were used. All analyses were performed with the Statistical Package for the Social Sciences, version 22 (SPSS, Chicago, IL, USA).

## Results

### Demographic and workplace characteristics

The sample (n=770) consisted especially of women (97.9%). The mean age of respondents was 40.9 SD  $\pm$  8.9 years, the minimum age was 20 years and the maximum age 61 years. The average length of work experience was 21.8, SD  $\pm$ 9.4 years, the shortest duration of practice was 1 year and the longest one was 44 years. Nurses were from these types of departments: Internal medicine (43.1%); Surgery (36.2%); Pediatrics (8.6%); Psychiatry (3.1%); Oncology (4.7%). 74.9% of Nurses were employed on Standard Departments and 25.1% on Intensive Care Units. 43.9% worked in no shift work (fixed morning shifts); 44.8% in 8 hour shift; 11.3% in 12 hour shift.

Descriptive analysis showed middle burnout levels among 24% - 31% of Nurses on each of the subscales. High burnout levels were found among 30% - 57% of Nurses.

**Table 1:** Descriptive characteristics of burnout syndrome of the sample.

<b>Table 1 – Descriptive characteristics of burnout syndrome of the sample</b>		
Burnout syndrome	n	%
EE		
Low ( $\leq 16$ )	139	18.1
Middle (17 – 26)	183	23.8
High ( $\geq 27$ )	437	56.8
DP		
Low ( $\leq 6$ )	298	38.7
Middle (7 – 12)	236	30.6
High ( $\geq 13$ )	226	29.4
PA (recoded)		
Low ( $\leq 31$ )	680	88.3
Middle (32 – 38)	56	7.3
High ( $\geq 39$ )	27	0.9

*Note.* EE – emotional exhaustion, DP – depersonalization, PA – personal accomplishment.

### Length of work experience and burnout syndrome

The results show that the differences between the length of work experience and burnout syndrome is not linear. Nurses with the length of work experience between 1 – 5 years have statistically significant lower scores of burnout syndrome in EE (F=2.439\*\*), DP (F=1.614\*) and total MBI (F=2.103\*) as compared with other categories of the length of work experience.

### Work shifts and burnout syndrome

With regard to shift work (Table 2), Nurses working in 8 or 12 hour shifts showed higher levels of burnout than Nurses with no shift work in the EE, DP dimension and the total burnout syndrome (MBI).

## Type of department and burnout syndrome

Highly statistically significant differences were confirmed in the EE dimension and the total burnout syndrome (MBI) between departments (Table 2). Nurses working at Oncology Departments have the highest degree of occurrence of burnout syndrome in the EE dimension and in the total burnout syndrome (MBI) score. Based on the analysis it can be stated that higher level of burnout syndrome in the EE dimension and in the total burnout syndrome score was confirmed in Nurses working at Intensive Care Units compared with Nurses working at Standard Inpatient Departments.

Nurses and to explore the associations between work-related factors and the extent of burnout among Nurses.

Results showed a high prevalence of high level of burnout with emotional exhaustion and depersonalization of Slovak Nurses. Studies in many countries, e.g. in Spain (Canadas *et al.* 2015), in Portugal (Gama, *et al.* 2014), in Poland (Ksiazek, *et al.* 2011) or in the Czech Republic (Vevodova *et al.* 2016) found a much lower level of burnout among Nurses compared to Nurses working in Slovakia.

A study by Iglesias *et al.* (2010), showed higher risk scores for EE dimension and PA dimension in Nurses who were older than

**Table 2:** Burnout syndrome in relation to shift work, type of department and type of unit.

MBI	Dimension of burnout syndrome							
	EE		DP		PA			
	F	LSD	F	LSD	F	LSD	F	LSD
<b>Shift work</b>								
No shift work (1)	10.308***	1-2,3*	2.767	1-3*	1.102	n.s.	6.178**	1-3*
12 hour shift (2)								
8 hour shift (3)								
<b>Type of department</b>								
Surgery (1)								
Internal medicine (2)	5.005 ***	5-1,2,3*	1.114	n.s.	1.676	3-1,4*	3.528**	5-1,2,4*
Pediatrics (3)								
Psychiatric(4)								
Oncology (5)								
<b>Type of unit</b>								
Intensive Care Unit	14.786***	n.s.	2.653	n.s.	0.056	n.s.	6.994***	n.s.
Standard Departments								

Note. EE – emotional exhaustion, DP – depersonalization, PA – personal accomplishment, MBI – Maslach Burnout Inventory.; LSD – post Hoc tests; \*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$ , n. s. not significant.

## Discussion and Conclusion

The aim of this study was to assess prevalence of burnout syndrome in Slovak

30 years, which is also in line with a study by Xie *et al.* (2011). In a study by Franca *et al.* (2012) a direct link was found between older professionals and burnout. In our sample, more detailed analysis of the categories

of the years of work experience confirmed a statistically significant differences in the EE, DP dimension and in the total MBI. The lowest level of EE, DP and MBI total score was identified on Nurses with length of service of 1-5 years. Burnout rate increased with length of service but not completely linearly. In accordance with our results, many authors (Gama, *et al.* 2014; Franca *et al.* 2012; Slezáková, *et al.* 2016; Vargas *et al.* 2014), found out that the degree of *burnout syndrome* increased with the length of work experience. We found out that shift work has an influence on the occurrence of *burnout syndrome*, and we can state that Nurses working in three 8 hours' shifts or two 12 hours' shifts have a higher degree of *burnout syndrome* in the EE, DP dimension and in the total score MBI than Nurses working in fixed morning shift, which indicates that work in one shift in a medical facility is the least risk work in relation to the occurrence of *burnout syndrome*.

In the study by Xie *et al.* (2011), shift work was reported to be a risk factor, since statistical significance was confirmed in the EE and DP dimensions too. It is also in line with a study by Canadas *et al.* (2015). In our study, the Oncology Nurses had significantly higher scores of *burnout syndrome* in the EE, dimension as compared with the Internal, Surgery and Pediatric Departments, and a higher total score MBI as compared with Internal and Surgery Departments. Blanchard *et al.* (2010), confirmed the presence of a high score of *burnout syndrome* in the EE, DP dimensions in 340 medical workers working at oncology departments, which is in line with the results of our research. A high total score of *burnout syndrome* in Nurses working at the Oncology Department was found by Ksiazek *et al.* (2011) too. Working in Intensive Care Units in our sample of Nurses was associated with a higher prevalence of *burnout syndrome* in EE and in the total score MBI compared

to Nurses working in standard units. Similar to our findings are the results of study by Canadas *et al.*, (2015) or meta-analytic study by Vargas *et al.* (2014) who found that specificities of work at Intensive Care Units and Emergency are significant factors influencing the occurrence of burnout syndrome.

The primary objective of the work was to define the personal and workplace factors that seem to be responsible for the formation of burnout. Nurses showed a high degree of *burnout syndrome* in the EE dimension and in the DP. Risk factors related to increased occurrence of *burnout syndrome* included shift work; length of work experience; work at Oncology Departments and Intensive Care Units. Combination of both person and organization directed interventions seems to be an appropriate solution to reduce *burnout syndrome* in Slovak Nurses, especially in older professional Nurses who worked at Oncology Departments and Intensive Care Units and as regards shift work, in Nurses who work in two or three shift work.

## Conflict of Interest

The authors whose names are listed in the title of the article certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, or other equity interest), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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