



The Association between Occupational Burnout and Spiritual Well-being in Emergency Nurses: A Cross-Sectional Study

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▶ ABSTRACT

Objective: This study evaluated the occupational burnout (OB) and spiritual well-being (SWB) of emergency nurses as well as the associations between these variables.

Method: This cross-sectional study was conducted in six hospitals and emergency medical centers affiliated with Ardebil University of Medical Sciences (Ardebil, Iran), in 2020. Data were collected via socio-demographic, Spiritual Well-Being Scale (SWBS), and Maslach Burnout Inventory (MBI) questionnaires.

Results: This study included 239 emergency department nurses. The mean age of the participants was 34.4±6.4 years. The mean of existential well-being and religious well-being was 40.3±8.7 and 41.0±9.2, respectively. The results indicated that moderate (P=0.007) and severe (P<0.001) personal accomplishment was a positive and significant predictor of the SWB in emergency department nurses.

Conclusion: Proper planning and provision of suitable educational programs in the dimension of the SWB of nurses prevent the creation and continuation of OB and increase the self-efficacy and job satisfaction of emergency medical staff, resulting in better patient care.

Keywords: Spirituality; Professional burnout; Nurses; Emergency nursing.

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Introduction

Occupational burnout (OB) is a syndrome defined as physical and psychological exhaustion or professional inefficacy induced by occupational stress, which could occur in any situation, but it is most common in healthcare systems [1, 2]. Among healthcare professionals, nurses experience the highest level of OB which negatively affects patient care [3].

Insomnia, depression, low job satisfaction, and frequent work absences are all side effects of OB [3-6]. A systematic review showed that OB was associated with work setting [7] and that the prevalence of OB among emergency nurses was high [8]. OB occurs in emergency nurses as a result of unexpected conditions, traumatic events, and interactions with acute injuries and emergency patients [9-11]. A cross-sectional study reported that 22.5% of emergency nurses had higher inclinations to leave their profession after one year [12].

Spiritual well-being (SWB) could be a potential preventive factor for burnout [13]. SWB is one of the dimensions of health that enhances adaptive ability and mental functioning [14]. A cross-sectional survey indicated that SWB had a beneficial impact on nursing care [15]. Similarly, another study in Iran showed a positive and significant correlation between nurses' care behaviors and SWB [16]. Kim *et al.*, found a negative and significant correlation between SWB in the critical care unit and OB [17].

The SWB of emergency nurses may influence how they treat patients. The SWB of emergency nurses is extremely crucial, because the emergency department is frequently the first section of the hospital that patients see. The association between OB and SWB should be investigated to enhance the SWB of emergency nurses, minimize burnout, and improve care. Spirituality may be a protective factor in preventing occupational burnout for emergency department nurses. Therefore, this study aimed to assess the SWB and OB among emergency nurses and investigate the associations between these variables.

Material and Methods

This cross-sectional study was conducted in six hospitals and emergency medical centers affiliated with Ardebil University of Medical Sciences (Ardebil, Iran) in 2020. Emergency nurses and pre-hospital emergency nurses were selected using a convenience sampling method.

The initial sample size was estimated to be 240, with G*Power, and based on a significance level of 0.05, a power of 0.80, and a medium effect size. Of the 240 questionnaires distributed to the ICU nurses, 239 questionnaires were returned (return rate 99.58%). One nurse declined to participate due to a demanding work schedule as well as a lack of interest

in the research. There were no systematic differences between those who participated and those who did not. Thus, 239 surveys were included in the final analysis.

After obtaining permission from the Research Ethics Committee of Mazandaran University of Medical Sciences (Rasht, Iran), the researchers distributed the paper-based questionnaires among the nurses. The inclusion criteria were being a nurse in the emergency ward or pre-hospital emergency unit, having at least two years of clinical experience, not using any known psychotropic medications, not having a known incurable disease, and willingness to participate voluntarily. First, the researchers explained the purpose of the study, and written informed consent was obtained from all the participants. The questionnaires were then distributed among nurses and collected one to two weeks later, according to their work schedules. Participants whose questionnaires were returned incompletely were excluded from the analysis. Finally, 239 nurses completed the questionnaires that were then analyzed. Socio-demographic, Spiritual Well-Being Scale (SWBS), and Maslach Burnout Inventory (MBI) questionnaires were used to collect the required data. Demographic information including age, sex, marital status, working unit, and educational status were all collected using a socio-demographic questionnaire.

SWBS was developed by Raymond Paloutzian and Craig W. Ellison in 1991 to assess the subjective state of well-being and perceived spiritual quality of life. It consists of two subscales, Existential Well-Being (EWB) and Religious Well-Being (RWB), with a total of 20 items. The SWBS includes both positive and negative items. A six-point Likert scale from strongly disagree (1), to strongly agree (6) was used to assign scores. The negative items were reverse-scored. This scale was divided into three sub-scales, including RWB, EWB, and SWB. The total score of the SWBS ranged from 20 to 120. The scores for the EWB and RWB scales ranged between 10 and 60. The higher the score, the better one's spiritual well-being. Abbasi *et al.*, validated this questionnaire among Iranian nursing students, and its Cronbach alpha coefficient was 0.87 [18]. In the present study, the Cronbach's alpha coefficient was used to determine the reliability of the questionnaire ($\alpha=0.081$).

MBI had 22 items, including emotional exhaustion (9 items), depersonalization (5 items), and personal accomplishment (8 items). Based on a score ranging from zero (never) to six (every day), the questionnaire was designed to assess the frequency of burnout feelings in the three stated dimensions. The score obtained in the three mentioned dimensions was based on the reference score, which was divided into three categories: low, medium, and high. Burnout was indicated by high scores of emotional exhaustion and depersonalization, as well as low

scores of personal accomplishments. Abolghasem *et al.*, reported the Cronbach's alpha coefficient reliability of the questionnaire as 0.71 to 0.90 [19]. The reliability of the questionnaire in this study was determined using Cronbach's alpha coefficient, which was 0.74 to 0.87 in subscales and 0.82 for the entire scale.

The data were analyzed using SPSS software version 24 (SPSS Inc., Chicago, IL, USA). Mean±SD and frequency (%) were used to express continuous and categorical variables, respectively. The Kolmogorov-Smirnov test was used to check the normality of the data. A logistic regression test was used to examine the relationship between variables. $P \leq 0.05$ was considered statistically significant.

Results

This study included 239 emergency department nurses. The mean age of participants was 34.4±6.4 years. The participants' demographic information was as follows: 55.2% were men, 60.3% were married, 94.6% had a bachelor's degree, and 96.7% resided in the city. Their average work experience was 11.1±6.4 years, and their emergency department work experience was 8.8±5.9 years. The participants' demographic information is presented in Table 1.

The mean of EWB and RWB was 40.3±8.7 and 41.0±9.2, respectively. According to Table 2, the majority of the nurses (83.3%) had a moderate level of SWB, severe emotional exhaustion (43.5%), severe depersonalization (70.7%), and high personal accomplishment (77.8%).

As shown in Table 3, moderate ($P=0.007$) and severe ($P<0.001$) personal accomplishment was a positive and significant predictor of the SWB in emergency department nurses. Other dimensions revealed no significant relationship.

Discussion

The primary purpose of this study was to determine the SWB and OB among emergency nurses, as well as the associations between these variables among nurses working in the emergency departments of hospitals affiliated with Ardabil University of Medical Sciences (Ardabil, Iran). The findings of the present study showed that SWB had an inverse relationship with the dimensions of emotional exhaustion and depersonalization, as well as a direct and significant relationship with personal accomplishments. As the levels of SWB increase, so do individual accomplishments, while emotional exhaustion and depersonalization decrease.

Tashrafi *et al.*, found a positive and significant correlation between spiritual intelligence and the two dimensions of SWB [20]. Similar to the findings of the present study, a positive relationship was found between spiritual intelligence and SWB; however, this relationship was negative

Table 1. Demographic characteristics (N=239).

Variables	Frequency (%)/ Mean±SD
Age	34.4±6.4
Sex	
Male	132 (55.2)
Female	107 (44.8)
Marital status	
Single	95 (39.7)
Married	144 (60.3)
Place of residence	
City	231 (96.7)
Village	8 (3.3)
Educational level	
BSN	226 (94.6)
MSN	13 (5.4)
Work experience (year)	11.1±6.4
Work experience in the emergency department (year)	8.8±5.9

Values are expressed as a number (%) for categorical variables and mean±SD for continuous variables.

Table 2. The frequency of SWB and OB among emergency nurses (N=239).

Variables	Frequency (%)
SWB	
Spiritual health	
Low	0 (0)
Moderate	199 (83.3)
High	40 (16.7)
OB	
Emotional exhaustion	
Mild	35 (14.6)
Moderate	100 (41.8)
Severe	104 (43.5)
Depersonalization	
Mild	6 (2.5)
Moderate	64 (26.8)
Severe	169 (70.7)
Personal accomplishment	
Mild	186 (77.8)
Moderate	20 (8.4)
Severe	33 (13.8)

Values are expressed as a number (%).

with depersonalization. The study of Asgharpour *et al.*, found an inverse relationship between spirituality in the workplace and burnout [21]. Therefore, as SWB increased in the workplace, OB decreased. Another study indicated that SWB is closely related to employee performance [22]. Workplace spirituality can significantly improve organizational efficiency [23]. Rasoolian *et al.*, investigated the relationship between OB and nurse personality traits and reported a lower burnout rate than the findings of the present study [24]. Besides, Talaei *et al.*, investigated the OB of medical workers in Mashhad and found that the majority of the participants had a high level of OB [25]. A comparison between the findings of Talaei

Table 3. Regression Model of SWB and OB

Variables	Coefficient	95% CI	P value
Emotional exhaustion			
Mild	N/A	N/A	N/A
Moderate	-0.017	-0.153 to 0.119	0.805
Severe	-0.018	-0.159 to 0.122	0.797
Depersonalization			
Mild	N/A	N/A	N/A
Moderate	-0.152	-0.402 to 0.097	0.230
Severe	-0.193	-0.438 to 0.052	0.123
Personal accomplishment			
Mild	N/A	N/A	N/A
Moderate	0.188	0.052 to 0.323	0.007
Severe	0.529	0.392 to 0.665	<0.001

Values are expressed via a Logistic regression test.

et al.'s study with those of the present study showed that the rate of OB among nurses was higher than among other medical staff. In previous studies, the rate of OB was reported differently. Ahmadi *et al.*, evaluated the relationship between burnout and nurses' communication skills in four teaching hospitals in Sari and observed that in terms of burnout, they were at a moderate level in the dimension of emotional exhaustion, at a low level in the dimension of depersonalization, and a low level in the dimension of personal accomplishment [26]. Emold *et al.*, reported that the emotional exhaustion in nurses was about 60% [27], while Armstrong and Holland reported moderate to high levels of emotional exhaustion and high levels of personal accomplishment [28]. Lopez *et al.*, also reported low rates of burnout in the dimensions of emotional exhaustion and depersonalization, followed by high levels of personal accomplishment [29]. Various research findings revealed that people in the same working conditions did not experience burnout to the same extent and that burnout was influenced by a variety of factors.

According to a study by Kim and Yeom on the relationship between SWB and burnout of 318 nurses working in intensive care units of three South Korean University hospitals, higher SWB was associated with lower levels of OB that were independent of personal and demographic characteristics of individuals [17]. Another study by Zhang *et al.*, on the relationship between burnout in clinical nurses and the influence of the spiritual atmosphere on 207 nurses in the clinical wards of a third-level university hospital indicated that higher spirituality was associated with higher job satisfaction, less burnout, and lower turnover intentions, which was consistent with the findings of the present study [30]. Therefore, religious and spiritual instructions can increase nurses' job satisfaction and enhance organizational productivity. According to earlier research, nursing education could not be fully comprehensive without spiritual training and care, and nurses are unable to fulfill their jobs effectively without acquaintance with these concepts. Furthermore, nurses should

constantly assess their spirituality and strive to promote SWB to achieve the essential balance in their personal and professional lives in order to deliver comprehensive, effective, and safe nursing care [31, 32].

One of the limitations of the present study was the absence of investigation of additional extrinsic influences on SWB and OB among emergency department nurses, which can affect the association between SWB and OB.

If healthcare managers and health policymakers prioritize effective scheduling and appropriate instructional programs for nurses' SWB, the beginning and progression of OB might be slowed down. These instructional programs can also improve patient care and increase nurses' self-efficacy and contentment when dealing with medical emergencies.

It is suggested that future studies investigate external variables that influence the relationship between SWB and OB. It is also recommended that experimental research be conducted to determine how different methods of instruction affect both OB and SWB.

This study indicated that SWB is critical in preventing burnout in those who work in stressful conditions, such as emergency nurses and emergency medical staff. Proper planning and appropriate educational programs in the SWB of nurses may provide the required cushion against OB and increase the efficacy and job satisfaction of medical staff in emergency departments.

Declaration

Ethics approval and consent to participate:

The study was approved by the Ethics Committee of Mazandaran University of Medical Sciences (Code: IR.MAZUMS.REC.1399.6935). The researchers explained the purpose of the present study to the participants and obtained written informed consent from them. Participants were assured that they could withdraw at any stage of the present research.

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Authors' Contributions: Study concept and design

by all authors; Data acquisition by all authors; Data interpretation by all authors; drafting of the manuscript by all authors; Revision of the manuscript by all authors; all authors approved the final version.

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