Original Article

Burnout Syndrome among Nurses in a Psychiatric Hospital in Dammam, Saudi Arabia

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Abstract

Background: Burnout syndrome (BOS) is a serious issue among nurses due to chronic exposure to work-related stress. **Objectives:** The aim of this study was to determine the prevalence and associated risk factors of BOS among psychiatric nurses in a hospital in Saudi Arabia. **Methods:** In this cross-sectional study, 395 nurses were included through simple random sampling at a psychiatric hospital. The Maslach Burnout Inventory was used to measure the burnout. Multinomial logistic regression was used to determine the factors associated with BOS among nurses. **Results:** The mean age of the participants was 35.43 ± 7.04 years. Most study participants were married (69.1%) Saudi (74.7%) males (68.4%), and the average time of service in the hospital was 13 years. Most of the participants (82.3%) had burnout, ranging from mild to very severe. After adjustment for covariates, we found that severe BOS was reported among Saudi nurses (odds ratio [OR] 3.28 and confidence interval [CI] 1.28–8.37) and among ex-smokers (OR 4.9, CI 1.39–17.5). Single participants reported moderate BOS (OR 2.37 and CI 1.19–4.72). These values were statistically significant. **Conclusions:** BOS is prevalent among psychiatric nurses. The most common factors associated with BOS were Saudi nationality, single status, and being an ex-smoker. There is a need for counseling services for nurses to address this issue.

Keywords: *Burnout, Nurses, Psychiatric ward, Smoker, Work stress*

Introduction

Burnout is a physical and mental disorder which entails physical exhaustion, fatigue, and emotions of hopelessness, along with a negative attitude toward work, life, and other people.[1,2] Different factors contribute to burnout syndrome (BOS). The most common contributing factors are fatigue, high expectations from work, interpersonal conflicts, and work burdens due to a shortage of staff.[3] These factors can lead to emotional problems and mental disorders in daily life.[4,5] BOS is a common health problem among health-care workers, especially nurses. The prevalence of BOS varies in different jobs, and it may be influenced by personal, organizational, and work factors.[6-9]

Life expectancies have increased, especially in the developed world, due to advances in medical technology.[10,11] The proportion of elderly people in society has increased due to an increase in life expectancy. This, in turn, will further increase the need for nurses to care for an aging population. Most nurses working in hospitals today are also over 50 and will retire in the next 10 years, creating a shortage of nurses in the job market.[12-15] The shortage of nurses will put an even greater burden on existing nurses, leading to an increase in BOS.[16,17]

A previous study of BOS among nurses in the United States, Canada, England, Scotland, and Germany included 43,000 nurses and 700 hospitals and found that 30%–40% of nurses had suffered from BOS.[18] The prevalence of BOS varies in different wards of hospitals.[19] Another

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study among nurses in the intensive care units found that one-third of critical care nurses suffer from severe BOS.[20] Another study found that nurses with higher levels of education, more work experience and higher positions in the organization score lower on the burnout scale; however, nurses working night shifts and those who experience conflict with colleagues or hospital management have higher levels of burnout.[21] Yet another study examined a sample of community psychiatric nurses found that 24% were experiencing emotional exhaustion, and 81% had low depersonalization scores.[22] Another study on community mental health nurses also found that half of the respondents were emotionally exhausted by their work.[23] A recent study also found that mental health nurses report higher levels of burnout than nurses from other practice areas.[23]

Some of the studies also found that youth, overtime work, working as a physician's assistant, high-stress jobs, frequent over-commitment, low social support,[24] female gender, and lower levels of education were all associated with high levels of BOS.[23] In another study, age was the strongest predictor of BOS, followed by education level, so that older, more educated workers are less likely to experience BOS.[25]

Very few studies on BOS in nurses, especially psychiatric nurses, have been conducted in Saudi Arabia. This is the first study which is conducted in a psychiatric hospital in the city of Dammam.

Objectives

The objective of this study was to determine the prevalence of BOS and the factors associated with it among nurses working in a psychiatric hospital.

Methods

Study setting and study design

This cross-sectional study was conducted from January 1, 2019 to April 10, 2019 at a public psychiatric hospital in Dammam, Saudi Arabia. The hospital building is in a space of 35,000 m^2 and total bed in the hospital approximately 500. A total of 1,520 nurses were working in the hospital.

Inclusion and exclusion criteria and sample size and technique

Being a registered nurse, working at the aforementioned hospital, and having at least 1 year of work experience were selected as the inclusion criteria. The sample size was calculated using the results of an earlier study which investigated the prevalence of burnout among nurses in hospitals of Iran and reported a prevalence of 44%.[17] Then, with a 95% confidence level and 5% margin of error, the resulting sample size was 380 and adding 3.5% of nonresponse rate the sample size has increased to 395. Participants were selected through simple random sampling: a list of names was obtained from the hospital and entered a random generator software, which was used to select the required number of participants.

Data collection instruments and procedure

After permission was obtained from the hospital, the questionnaire was distributed to the nurses and the they have filled out the questionnaires at a private setting at the hospital and returned to the focal person of study. The questionnaire had two sections: demographic information and the BOS measure. Demographic information included age, gender, nationality, occupation, marital status, education level, shift schedule, daily working hours, and smoking status. The second part was the Maslach Burnout Inventory (MBI). It is a 28-item, self-reported instrument designed to provide a quantitative assessment of various domains of BOS. All items are rated on a five-point scales 0 = never/no change, 1 = rarely, 2 = some times, 3 = often, and 4 = always/large change. The sum of the item responses are respectively categorized into: 28–38 = no burnout, 39–50 = mild burnout, 51–70 = moderate burnout, 71–90 = severe burnout, and >90 = very severe burnout. The Cronbach's alpha for the MBI is 0.80 with a range of 0.79–0.81 for the subscales.[17]

Ethical considerations

The study protocol was approved by the Institutional review Board of Imam Abdul Rehman bin Faisal University (IRB-PGS-2019-03-177) and the hospital's Ethical Review Committee. All personal data were kept confidential and used only for the purposes of the study. All procedures involving human participants were conducted in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Data confidentiality were maintained, and written informed consent was obtained from each participant.

Data analysis

The data were analyzed using the Statistical Package for the Social Sciences version 24 (IBM Software, Chicago, USA). Descriptive statistics for the age, gender, marital status, occupation, and education level of the participants were calculated. The mean scores and standard deviation for the MBI scale were calculated for all participants. The associations between BOS and sociodemographic variables were examined using multinominal logistic regression analysis. Statistical significance was indicated by $P < 0.05$.

Results

The mean age of the participants was 35.43 ± 7.04. The mean duration of work in this hospital was 8.62 ± 5.79 years. The

participants' demographic profiles are shown in Table 1. Of the 395 nurses, 68.4% were male, 74.7% were Saudi, and 69% were married. Most (70.6%) of the study participants had lower levels of education, less than a bachelor's or masters. Many of the participants (67.3%) worked 8 h a day; 42.3% worked alternating shifts. More than half (54.4%) were nonsmokers [Table 1].

Table 1: Demographic profile of the study participants (*n*=395)

Profile	Description	Frequency (%)
Gender	Male	270 (68.40)
	Female	125 (31.60)
Nationality	Saudi	295 (74.70)
	Non-Saudi	100 (25.30)
Marital status	Single	109 (27.60)
	Married	273 (69.10)
	Divorced	11 (2.80)
	Widowed	2 (0.50)
Nursing degree	Diploma	279 (70.60)
	Bachelor	85 (21.50)
	Master	31 (7.90)
Daily working hours	8	266 (67.30)
	>8	129 (32.70)
Shift schedule	Day shift	160 (40.50)
	Afternoon shift	33 (8.40)
	Evening shift	35 (8.80)
	Alternating shift	167 (42.30)
Smoking status	Nonsmoker	215 (54.40)
	Current smoker	118 (29.90)
	Ex-smoker	62 (15.70)

Considering the burnout level, 17.7% of the participants showed no burnout. However, 25.1%, 40.8%, 12.9%, and 3.5% presented mild, moderate, severe, and very severe burnout, respectively.

Table 2 shows sociodemographic characteristics were associated with all levels of burnout. The association of Saudi nationality (odds ratio [OR] 3.28 and confidence interval [CI] 1.28–8.37) with severe burnout and of single status (OR 2.37, CI 1.19–4.72) with moderate burnout were statistically significant in the univariate analysis. All sociodemographic characteristics were associated with all levels of burnout, but only the association of being an ex-smoker (OR 4.9 and CI 1.39–17.5) with severe burnout was statistically significant in the multivariate analysis [Table 3].

Discussion

Most of the nurses in the study showed a burnout ranging from mild to very severe. A number of studies[24,25] have

Table 2: Association of demographic characteristics with burnout level (univariate analysis)

Characteristics	COR (95% CI)			
	Mild	Moderate	Severe	Very severe
Gender				
Male	0.38 (0.17-0.84)	0.35 (0.17-0.75)	0.12 (0.05-0.30)	0.30 (0.08-1.08)
Female	1[a]	1	1	1
Nationality				
Saudi	1.20 (0.62-2.30)	1.74 (0.94-3.23)	3.28 (1.28-8.37)	3.15 (0.64-15.4)
Non-Saudi	1	1	1	1
Marital status				
Single	1.74 (0.82-3.67)	2.37 (1.19-4.72)	1.51 (0.63-3.62)	0.33 (0.04-2.76)
Divorced/widowed	1.62 (0.14-18.36)	5.14 (0.63-41.65)	1.51 (0.09-24.95)	2.52 (0.52-0.8)
Married	1	1	1	1
Education				
Diploma	0.37 (0.17-0.80)	0.35 (0.17-0.71)	0.40 (0.17-0.97)	0.50 (0.21-0.352)
Bachelor/master	1	1	1	1
Daily working hours				
8	0.79 (0.40-1.58)	0.7 (0.37-1.32)	0.33 (0.15-0.71)	2.07 (0.42-10.18)
>8	1	1	1	1
Smoking				
Ex-smoker	1.79 (0.64-5.02)	2.51 (0.96-6.57)	2.20 (0.72-6.7)	2.05 (0.4-9.6)
Current smoker	0.84 (0.42-1.67)	1.33 (0.72-2.47)	0.05 (0.23-1.35)	1.7 (0.02-1.48)
Nonsmoker	1	1	1	1
Shift work schedule				
Alternating shift	0.66 (0.33-1.31)	0.76 (0.41-1.40)	1.39 (0.63-3.06)	2.82 (0.70-11.2)
Afternoon shift	2.60 (0.69-10.31)	2.00 (0.53-7.44)	1.64 (0.29-9.10)	1.89 (0.79-11.31)
Evening shift	1.33 (0.44-3.96)	0.86 (0.30-2.50)	0.82 (0.18-3.37)	1.55 (0.13-17.64)
Day shift	1	1	1	1

[a]Reference category. COR: Crude odd ratio, CI: Confidence interval

Table 3: Association of demographic characteristics with burnout (multivariate analysis)

Characteristics	AOR (95% CI)			
	Mild	Moderate	Severe	Very severe
Gender				
Male	0.42 (0.17-1.019)	0.35 (0.15-0.80)	0.10 (0.03-0.27)	0.20 (0.04-0.93)
Female	1[a]	1	1	1
Nationality				
Saudi	1.108 (0.54-2.24)	1.43 (0.73-2.8)	2.47 (0.89-6.8)	2.4 (0.47-13.17)
Non-Saudi	1	1	1	1
Marital status				
Single	1.45 (0.65-3.25)	1.92 (0.91-4.05)	1.35 (0.50-3.5)	1.63 (0.53-4.95)
Divorced/widowed	1.14 (0.09-13.6)	3.2 (0.38-27.5)	0.90 (0.05-16.4)	2.9 (0.34-25.4)
Married	1	1	1	1
Education				
Diploma	0.52 (0.23-1.19)	0.50 (0.23-1.08)	0.68 (0.26-1.82)	1.15 (0.56-7.56)
Bachelor/master	1	1	1	1
Daily working hours				
8	0.86 (0.41-1.79)	0.83 (0.42-1.6)	0.47 (0.20-1.11)	2.7 (0.50-14.7)
>8	1	1	1	1
Smoking				
Ex-smoker	1.70 (0.57-5.09)	2.64 (0.94-7.4)	4.9 (1.39-17.5)	3.31 (0.60-18.2)
Current smoker	0.98 (0.47-2.03)	1.7 (0.87-3.34)	1.12 (0.42-2.9)	0.3 (0.03-2.6)
Nonsmoker	1	1	1	1
Shift work schedule				
Alternating shift	0.75 (0.36-1.55)	0.90 (0.46-1.75)	1.83 (0.73-4.5)	3.13 (0.67-14.5)
Afternoon shift	2.86 (0.71-11.52)	2.27 (0.57-8.9)	2.3 (0.38-14.5)	2.4 (0.55-5.12)
Evening shift	1.15 (0.35-3.73)	0.61 (0.19-1.9)	0.66 (0.11-3.7)	2.8 (0.18-41.9)
Day shift	1	1	1	1

[a]Reference category. AOR: Adjusted odd ratio, CI: Confidence interval

highlighted the significance of burnout and reported that as many as 70% of nurses suffer from BOS.[25] We found that married and older nurses experienced higher levels of BOS than younger and single nurses.

There are different factors which contributed to BOS among psychiatric nurses first, they may have to deal with psychiatric patients such as psychotic patients and substance abusers. In a psychiatric hospital, a patient's death during a nurse's shift can cause significant stress for the staff, leading to emotional exhaustion. Nurses in a psychiatric hospital must also deal with patients with multiple psychological problems, including patients who may become violent. This can contribute to higher levels of burnout among these nurses. Nurses who worked alternating shifts scored higher on the MBI scale than those with consistent work shifts.[25] Multiple factors may contribute to burnout among shift workers, such as having to leave their homes and children at night, which can cause emotional distress in the children; a lack of adequate time for their families; and high levels of fatigue. Therefore, shift nurses burn out more easily and earlier than their counterparts who work day shifts.[26] A study in Japan reported that nurses working in the general and internal medicine wards had somewhat higher burnout scores than those in the obstetrics/gynaecology ward.[27] In Europe, a recent study reported that nurses working longer shifts were more likely to experience and burnout and job dissatisfaction, and had higher intentions to leave the job.[28]

Our study found that male nurses with ten or more years of working experience were more likely to have mild-to-moderate BOS. Some recent studies[28,29] in other parts of the world reported higher level of burnout among psychiatric nurses and were more likely to experience feelings of agitation. When nurses first start their careers, their stress level is low. As they gain more responsibilities and duties, they start to encounter more pressure. Issues related to the growing number of patients increases this pressure. Over time, they figure out how to adapt to their circumstances and become stronger. Consequently, medical caretakers are more resilient and less likely to experience BOS.

Married medical caretakers may less likely to have BOS perhaps because they are more sympathetic toward patients and feel more satisfied by their work. In a country like Saudi Arabia, however, social and religious resistances, especially for married nurses working night shifts, may increase BOS. However, single nurses do not face these issues and might therefore be less likely to burn out. BOS is a major issue affecting nurses and

their patients.[10,25] There is a critical need to identify the factors which contributed to BOS and make a policy to prevent them from BOS. Like many countries, Saudi Arabia has a serious deficiency of qualified nurses, and this situation leads to high prevalence of BOS among nurses.[10,29,30]

This study is susceptible to survivor bias because it assesses prevalence rather than incident cases. It is also likely that all the stress scores are subject to reporting bias, since the data here were collected through a questionnaire.

Conclusions

This study showed that BOS is common among psychiatric nurses, likely because of increasing workloads and responsibilities. BOS can negatively affect job performance, leading to compromised patient care. Further research evaluating the effect of nurses' psychological and physical wellness on their lives and work is urgently needed; studies of the institutional components that contribute to burnout are also needed. The following interventions should be adopted to reduce BOS: adjust workloads to nurses' abilities, design jobs that are meaningful and stimulating, and encourage employee participation in decision-making.

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Conflicts of interest

There are no conflicts of interest.

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