Original Article

Occupational burnout assessment among nurses working in Iranian hospital of Ali-ebn Abitaleb, Rafsanjan- Iran

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Abstract

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Background: Burnout, a phenomenon that is of interest for both individuals and organizations, is characterized by decreasing energy, power and resources in the presence of excessive demands. Nurses are more prone to develop burnout due to both the emotional nature of their jobs as well as patients' demand. The present study was aimed to assess burnout among nurses working in the Iranian hospital of Ali-ebn Abitaleb Rafsanjan, Iran 2010.

Material and Methods: in this descriptive study, 134 nurses (working in Med-Surge, ER, ICU, CCU, and Neurology units) were randomly recruited. The data were collected in two sections. Demographic variables including age, sex, diet, work experience, marital and employment status and academic degree were asked in the first section. Maslach burnout tool was applied for measuring burnout in nurses, in the second section.

Results: Most nurses (63%) were women and married (74.8%). Mean age of nurses was 33.84 ± 8.7 years with a minimum of 24 and maximum of 53 years. Mean score of burnout was 78.43 ± 15 with a minimum of 26 and maximum of 132. There was a significant association, between gender and degree of burnout ($p < 0.05$). Higher score of burnout was reported among those with shorter duration of working in their job (0-5 years) comparing to nurses with a longer duration (more than 20 years) of working in their job ($p < 0.05$).

Conclusions: Our findings showed that burnout affected nurses significantly. Therefore, it seems that this problem must be studied and related factors should be recognized, in order to reduce burnout among nurses. Many aspects of nurse's job should be noticed and appropriate intervention should be conducted. These aspects include their salary, job security, their lesure and their dayly working hours.

Key words: Nurse, Professional Burnout, Hospital

Introduction

Burnout, a phenomenon that is of interest for both individuals and organizations, is characterized by decreasing energy, power and resources in the presence of excessive demands [1-3]. It is one of the factors which influence the efficiency and productivity of the workers and staff in every field [4]. Burnout is linked to a specific form of chronic occupational stress, induced by high levels of emotional stress present in the interpersonal relationships within the organizations [5-7]. Burnout as a psychological syndrome is characterized by feelings of being overextended and depleted of one's emotional and physical resources (emotional exhaustion), the development of a negative, callous, or excessively detached response to various aspects of the job (cynicism or depersonalization), and feelings of incompetence and a lack of achievement

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and productivity at work (reduced accomplishment)[7-9].

According to Maslach, burnout is a physical, emotional and mental exhaustion syndrome which develop a negative self-concept as well as negative attitudes towards the profession, the life and other people.[4, 10] The presence of burnout syndrome (BOS) in critical care nurses has been examined in numerous research studies[11-13] The nursing personnel are at high-risk of developing this syndrome for a number of reasons: they have direct contact with patients and their suffering and needs[14, 15]; they endure difficult organizational work conditions, usually related to work shifts and lack of autonomy [16]; they are poorly paid; carry out conflicting or ambiguous roles [17]; and they must deal with relatives who in some instances create tense situations, or deal with problems with residents and colleagues [18], working in a hostile environment on certain occasions[19]. Increased patient load, extended work hours, emotional needs of patients and families and lack of support are among the causes for the prevalence of job-related stress which leads to burnout in nurses [20] Nursing burnout is more closely related to job demands, whereas nursing engagement is more closely related to job resources (physical, psychological, social, or organizational aspects of the job that stimulate personal growth and progress) [14]. Additionally, studies about the analysis of the influence of personal resources in nursing on burnout and engagement are scarce [1,5]. In an effort to detect and measure the severity of BOS, Maslach and Jackson developed the Maslach Burnout Inventory (MBI), which evaluates three characteristics: emotional exhaustion, depersonalization, and lack of personal accomplishment [21,22].

Research studies about BOS in health care workers reveal that BOS is a continuing problem[23]) and that it has been attributed to increased work overload. The BOS is significant because it silently affects the mental and physical well-being of doctors [24]and nurses [7, 25]. Just as high levels of nurse caring and compassion have been linked to high levels of patient satisfaction, so have high levels of nurse burnout been linked to patient dissatisfaction[26]. Research into stress and professional burnout has shown that different aspects of working environments influence burnout.[27] Nursing has been considered a profession that one would be expose to high levels of stress and in result burnout. Thus, burnout is an important consequence of nursing stress and is associated with psychological problems, somatic and physiological arousal, reduced cellular immunity, lower morale, low productivity, absenteeism, job turnover, and alcohol and drug abuse [28].

In the case of nurses, empowering work conditions, i.e. access to opportunity for development, information, support resources necessary to accomplish work as well as formal and informal power, were shown to affect various areas of working life, which in turn influence nurses' health. Conversely, when work conditions do not ensure that employees have access to these factors (i.e. when social structures in the workplace are not empowering), this may result in reduced autonomy and impact in the organization and a sense that the job is meaningless, which may lead to burnout [29]. Nurses are more prone to develop burnout due to the emotional nature of their job as well as patients' demand. The present study was aimed to assess burnout among nurses working in, the Iranian hospital of Ali-ebn Abitaleb Rafsanjan, Iran (2010).

Material and Methods

This is a descriptive study conducted to measure burnout, among nurses working in Ali-ebn Abitaleb hospital affiliated to Rafsanjan University of Medical Sciences . A group of 134 nurses working in Med-Surge, ER, ICU, CCU, and Neurology units were invited to help with this study. Respondents were randomly selected from the list of all nurses working in their wards (N=135). Respondents must have had at least 6 months of experience, and must have been willing to participate. Exclusion criterian include being addicted, suffering from psychological and Physical known diseases, and working part-time. The data were collected in two sections. Demographic variables including age, sex, and diet, working experience, marital and employment status and academic degree of respondents were asked in the first section. Maslach burnout tool was chosen as the most frequently used tool in the second section. This questionnaire has 22 items. For this questionnaire, the internal consistency reliability coefficient of (0.71-0.9) and a test-retest reliability coefficient of 0.6-0.8 have been reported [30].

Respondents were ranked based on the scores they obtained from the questionnaire. The level of burnout was classified between the minimum of zero and the maximum of 132. Where there was no burnout when the score was zero and there was the worst level of burnout when the score was 132. This score was calculated based on the answer that each respondent present for the related items on the questionnaire. For example if there was no burnout, the score was zero, or there was few times in a year, the score was about 22 and so on. Respondents were interviewed and the consent from was taken from them after providing all details about the method and objectives of the study. The study instrument was completed in a calm place in the interview sessions by trained experts.

Respondents were asked to answer all items of the instrument with confidentiality. No name was needed on the instrument as it was anonymous and respondents were ensured that completed forms would be kept in safe place. Further, this study was approved by the ethics committee of the medical university. Nurses were invited to complete the questionnaire in interview sessions which took about 20 minutes of their time at the bigining of their shift or at the end of their shift. Data were analyzed in SPSS and descriptive statistics as well as parametric (t-test and ANOVA) and non-parametric tests (chi-square) were used where appropriate.

Results

The results showed that most nurses (63%) were women and married (74.8%). Mean age of nurses was 33.84 ± 8.7 years with a minimum of 24 and maximum of 53 years. Most nurses in this study (46.7%) were in the age range of 25-30 years. The average number of work experience was 10.5 ± 9.2 years, with minimum of 1 and maximum of 29 years. More than 42% of nurses reported between 1-5 years of work experience. Mean of Burnout score was 78.43 ± 15 with a minimum of 26 and maximum of 132. Only 2 nurses (1.5%) did not experience burnout and more than 98% of them showed some degree of burnout. The majority of nurses (85.9%) felt a few times burnout monthly (Table 1).

Independent t-tests showed that the mean score of burnout among women was significantly higher than this mean score among men ($p < 0.05$). The mean score of burnout among nurses with a Bs degree was higher than this score among nurses with an

associate degree. Based on respondents age, highest level of burnout were observed among nurses with the age of 24-30 years and lowest level of burnout belonged to nurses aged over 40 years. ANOVA and tukey tests showed significant difference of burnout scores between different age groups, unparticular the two age groups of 24-30 and age equal and higher than 40 years (P=0.005) (table 2).

Table 1: Frequency distribution of nurses based on some demographic characteristics

Respondents' Characteristics	Numbers	Percent
sex		
- Male	50	37
- Female	85	63
Age (years)		
- 24-30	63	46.7
- 31-40	44	32.6
- >40	28	20.7
Marital status		
- Married	34	25.2
- Single	101	74.8
Educational qualification		
- Associate degree	25	18.5
- Bachelor	110	81.5
Ward		
- Psychiatry	15	11.1
- Surgery	42	31.1
- Internal	33	24.4
- CCU	13	9.6
- ICU	11	8.1
- Emergency	21	15.6
Employment Status		
- Projective	37	27.4
- Contractual	26	19.3
- Contract	10	7.4
- Official	62	45.9
Work experience (years)		
- 1-5	57	42.2
- 6-10	24	17.8
- 11-20	31	23
- >20	23	17
Perceived occupational burnout level		
- Never	2	1.5
- A few times a year	8	5.9
- Once a month	55	40.7
- A few times a month	61	45.2
- Every Week	9	6.7

Nurses who were less experienced (between 1-5 years) reported a higher score of burnout comparing to nurses who had longer duration of working in their job (more than 20 years). ANOVA test showed a significant relationship between work experience and burnout ($p < 0.05$). Also Tukey test showed significant difference between both groups of 1-5 and 6-10 years of working experience with staff personnel with over 20 years of experience ($p < 0.05$) (Table 2). ANOVA also showed significant differences of burnout

mean scores between different groups of employment status (Table 2). The highest mean scores of burnout was in the internal department personnel and the lowest mean score was reported among nurses working in the ICU ward. Statistical tests showed significant differences of burnout mean scores between wards. Tukey test showed significant differences of burnout mean scores among nurses working in the surgery and internal ICU wards ($p< 0.01$) (Table2).The average burnout was higher among single nurses (81 ± 14.8) compared to nurses who were married (77.5 ± 15.2). However, there was no significant difference of burnout mean scores between the two groups of marital status.

Table 2: Mean scores of burnout among respondents based on some characteristics

Respondents' characteristics	Average	Standard deviation	Statistical values
sex			
- Male	74	12.8	T=2.67
- Female	81	15.8	df=133 P=0.008
Educational qualification			
- Associate degree	69.7	15.4	T=33
- Bachelor	80.4	14.4	df=133 P=0.001
Age (years)			
- 24-30	81.8	15.8	F=5
- 31-40	78.2	12.5	df=2
- >40	71.2	15.1	P=0.008
Work Experience (years)			
- 1-5	81.7	15.9	F=4
- 6-10	76	12.6	df=3
- 11-20	80.6	12.7	P=0.009
- >20	69.9	15.6	
Employment Status			
-Projective	84.6	16.1	F=3
- Contractual	75.5	13.7	df=3
- Contract	77.7	8.7	P=0.03
- Official	76	15	
Ward			
- Psychiatry	78.8	11.7	
- Surgery	75	15	F=3.18
- Internal	85.5	16.1	df=5
- CCU	76	11.4	P=0.01
- ICU	68.5	13.9	
- Emergency	80.5	14.5	

Discussion

The findings of the study showed that only two nurses (1.5%) did not experienced burnout. In other words, more than 98% of nurses in our study were suffering from some levels of occupational burnout. Grau-Alberola, Performed a study on 316 nurses (53 males and 292 females) in two consecutive years in Spain, that showed a burnout prevalence of 2.84% in the first timing and 1.89% reported in the second time [8]. In a study conducted by Losa Iglesias and colleagues on special nurse (critical care), nurses had experienced different levels of burnout [12].

In study of Lusine Poghosyan et al the prevalance of burnout among nurses in America, Canada, England, Germany, Maryland, Japan , Russia, Armenia, Was reported as 0.77, 0.78, 0.77, 0.91, 0.75, 0.62, 0.87, 0.73, respectively [2, 10]. Nursing seems to be one of the most stressful and difficult jobs in all countries. Although, there are many differences in the nature and organization of nursing job in different nations, nurses can experience burnout in all parts of the world. Our findings are in concordance with the results of other studies, and a significant number of nurses participating in our study were suffering from burnout (98%).

In a study on female nurses working in Hashemi Nejad Hospital, Tehran, it was also revealed that they are suffering from different levels of burnout and the level of burnout among them was higher than that among men [32]. In Abdi's study no significant difference between the scores of burnout in men and women was found [33].

The mean scores of burnout among female nurses in our study was more than this mean score among men. Significant differences of burnout scores were observed between age groups. The highest mean scores of depression was reported among nurses with the age between 24 and 30 years. When the age of respondents increased, the mean score of burnout decreased, as the lowest mean score of burnont was reported among nurses with over 40 years. A study conducted by lose Iglesias et al also showed that nurses with the age less than 30 reported higher level of burnout comparing to nurses over 30 years old [12]. This can be explained as younger nurses had not enough time to cope with their job problems and therefore experienced higher levels of burnout.

Our finding also showed that nurses with less experience of working in their job reported higher level of burnout comparing to those who had a longer duration of working in their occupation. This result again confirm this justification that nurses with less experience in their job are less prone to adopte with the difficulties of their job and they got frustrated and tired and to problems of their occupation. Whereas, after working in their job for a while they learn how to overcome these problems and how to cope with their job situation, this adaptation helps nurses to have more satisfaetion with the job and in return this results in less depression among nurses.

Abdi and colleagues also found a significant relationship between burnout and job experience [33, 34]. Further than explanation above, working conditions, organizational, and familial differences in different age groups may be the reason for this difference. Employment status of nurses is also very important and might affect the level of burnout among them. As our results showed there was significant difference of burnout scores among nurses with different employment status. This factor also could cause different levels of burnout among nurses as we know that nurses with longer duration of working in their job have better employment status comparing to those who recently started their job. Perhaps that is why in this study formal employees receive higher salaries and greater job security, and therefore had experienced less burnout.

In this study, the internal department personnel had the highest levels of burnout. This situation may be explained in terms of severity and the density of nurses' job in this ward. When there is more stress in nursing, this would result in higher rate of burnout.

Conclusion

Results showed that nurses in our study are

affected by occupational burnout significantly. However, it is not possible to change some of related factors such as gender, but many factors can be modified to reduce the level of burnout. Changes in existing policies and respect the experience and expertise of the nursing staff would help them to cope with this problem.

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Conflict of interest: Non declared

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