

ORIGINAL ARTICLE

THE RELATIONSHIP BETWEEN GENERAL HEALTH, OCCUPATIONAL STRESS AND JOB BURNOUT IN NURSES WORKING SHOHADAYE KARGAR HOSPITAL OF YAZD

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ABSTRACT

Aim of this study is to determine levels of general health, occupational stress and burnout in nurses who are working in Shohadaye Kargar Hospital of Yazd. A cross-sectional study was conducted among nurses who are working in Shohadaye Kargar Hospital of Yazd in 2017-2018 years. The sample was randomly selected and total 200 nurses were enrolled to the study. The study instruments included Occupational stress questionnaire, Maslach Burnout Inventory and General Health Questionnaire. Collected Data were analyzed by using descriptive test and Pearson correlation coefficient and multivariate regression in SPSS. The findings of research indicated that total levels of occupational stress were high among 58.85 % of nurses. Regarding burnout, 35.93% of nurses had reported high levels of burnout. Less than one percent (0.37 %) of nurses have high mental health problems and 0.44 percent reported mid mental health problem. There was a statistically significant correlation between occupational stress with mental health ($p < .001$) and job burnout with mental health ($p < .001$). Occupational stress and job burnout may have undesired influences on nursing mental health and general function.

Key words: occupational stress, job burnout, general health

INTRODUCTION

Job for every person is one of the most underlying sources of occupational tension¹. Nurses form the largest manpower resource of health system almost in all countries of the world and play key role in social health promotion². Nurses can form one of groups with highest job stress experience³. In nursing, from the time of education to the time of retirement, the nurses tolerate many ups and downs. Working shifts, working for more than 1 shift during 24hr, compulsory overtime are factors affecting job satisfaction of individuals⁴.

Longtime job stress can lead to job burnout⁵. Jobs like nursing with high stress and low control can cause mental and physical distress. Finally, psychological and emotional resources of nurses are drained, and the way is paved for beginning of job burnout syndrome⁶. Many scholars believe that prevalence of job burnout in nursing profession is everyday encountering with stressful situations¹. Because of nature of nursing with encompasses communicating patients and caregiving for them, negligence of recognition and coping with these stresses can cause irreparable complications⁷. Decline of caregiving quality can be the worst outcome of job burnout in nurses. When a nurse is burned out, patients are deprived from getting sufficient care and the individuality and human rights are questioned⁸. This is because; at the current modern world, the issue of job burnout of nurses, weakness of

performance, hospital events, inefficiency of nurses against safety of patients and their low commitment to organization happen most of the time⁷. At hospitals, the percentage of accidents is being increased day by day, the commitment of nurses to organization and assets and properties is decreased and the performance of some nurses is weakened as time goes. As it is obvious, all of the mentioned issues are associated with job stress⁶. Unconsciously, the stresses and job dissatisfactions caused by the stresses also affect personal life easily and can decrease mental health and ultimately, their mental well-being⁹.

Moreover, job stress within organizations was considered by scholars of management and psychology and issues such as health, human values, safety, anxiety, failure, frustration, mental stress, professional silence and feeling failure were presented¹⁰. Job stresses correlated to mental health, emotional health and effectiveness of employees¹¹. The outcomes of job stress and importance of considering what can be necessities of conducting study in this field. The today's job tension has been changed into common and costly problem in work places and a few people have not encountered that. The scientists of medical sciences believe that considerable percentage of mental and physical diseases caused by job are attributed to excessive stress. Although this is not the only harm, it can also affect performance significantly. Tuithof believes in the discussion on neural stresses that

neural stresses can affect the performance and activity of organizational members and can cause special mental modes for them and they may show behaviors and actions, which can be reflected in the efficiency of organization. As a result, human resource is wasted and the organizational goals are collapsed¹².

In this regard, effectiveness of job stress and job burnout on mental health of individuals is evident³. This is because; mental health is one of the most important results of a right and good choice in job selection, which can provide adaptability with work, possibility of creativity, satisfying relations with partners and increasing self-esteem¹³. On the contrary, job inadaptability is an issue causing repetitive change of job, absence, job and self-dissatisfaction, sense of insecurity and anger and hatred of job¹⁴. In view of World Health Organization¹⁵, mental health is complete physical, mental and social health. Mental health is a concept showing the quality of feeling, thinking and performance of individuals in encountering life situations and is depended on understanding of person of self and life. Moreover, depending on the amount of mental health, the performance in controlling stress, communicating others, assessments and choices are different¹⁶. Mental health shows the health status of people in terms of physical and mental status and weakness in that can be specified with physical symptoms, anxiety and sleep disorder, disruption in social action and major depression¹².

Cheung (2016) conducted a study to analyze the prevalence of depression, anxiety and stress symptoms in nursing department in Hong Kong. The recent epidemiologic data show that prevalence of mild to major depression, anxiety and stress in qualified nurses in Hong Kong was respectively obtained to 35.8%, 37.3% and 41.1%. In general, 661 nurses filled out the mental health questionnaire using depression, anxiety and stress scale¹⁷. To determine the correlation between variables, multivariate logistic regression was used. Working in nursing domain, financial problems, sleep disorders, leisure time activities and self-understanding in weak mental health was in significant correlation with depression, anxiety and stress of past times. The educational year, lack of physical activity and family crisis in last year was significantly correlated to depression. Stress could significantly affect mental health problems. They found that this is the first study confirming empirically that clinical symptoms, financial problems and lifestyle factors can increase depression, anxiety and stress symptoms of nurses. In another study, Spence (2017) showed that nurses as a group are highly vulnerable against job burnout¹⁸. This is because; the job can lead to high job burnout because of high stress, high organizational expectations, high emotional expectations of patients, high workload, change

in work shifts, sleep disorders and playing different roles.

In Iran, the study conducted by Moghali et al (2015) on analysis of the correlation between job satisfaction and job burnout between nurses in private and public sector and found that there is negative significant correlation between the two variables in public sector¹⁹. This is because; in public hospitals, based on low medication costs, number of patients is more than private sector and nurses in this sector tolerate high workload; although in private sector, as policy making was out of authority of the government and the owners and stockholders search for more interest to support their forces and take effort to satisfy them; this can lead to decreased job burnout in them and in discrimination of these results, it could be mentioned that organizations using motivational factors to enhance job satisfaction of employees have lower level of job burnout and higher performance efficiency. Moradi et al (2014) conducted some studies in field of as people playing key role in rescuing life of people and identified the amount and risk of job burnout in the personnel. The study showed that operating personnel of pre-hospital emergency in Isfahan reported average degrees of intensity and times of feeling emotional exhaustion, depersonalization and highly sense of personal inefficiency²⁰. Elsewhere, Moradbeigi et al (2013) mentioned that job burnout is one of the main unavoidable outcomes of job stress and decline of quality of caregiving by nurses²¹.

According to the differences among previous studies on the job stress level and job burnout and because of lack of a study analyzing the correlation of these variables with general health problems in nurses employed in Shohada Kargar Hospital in Yazd; this study has attempted to determine the correlation between general health and job burnout in nurses employed in Shohada Kargar Hospital in Yazd.

METHOD

Study design and sample

A cross-sectional study was conducted among nurse who are working in different department in Shohada Kargar Hospital in 2017-2018. The sample size was obtained according to Abdi (2017) study²² and taking into account the test power 80%, $\alpha=0/05$, the effect size 0.079 and the three predictor variables of 200 people. The sample was selected randomly and total 200 nurses were selected from the hospital. Inclusion criteria in this study are; at least one-year work experience, degree of BA in Nursing and Exclusion criteria included having a history of mental illness and being treated and unwillingness to participate in

the

$$N \geq \left(\frac{2 - 2\rho^2 + \varepsilon}{\varepsilon} \right) (K + 1)$$

$$\varepsilon = 0.2\rho^2$$

study.

that in the study of Sharifi (2006), reliability of the questionnaire was obtained to 0.68. Mellati and Raeisifar (2014) reports convergent validity of the questionnaire (AVA) to 0.83 and reliability of 0.94²⁴.

Study instrument

The instrument includes sociodemographic information of the participants, occupational stress inventory (OSI), Maslach Burnout Inventory (MBI) and general health questionnaire (GHQ). The occupational stress inventory (OSI) contains 40 items in 5-point Likert scale and the scoring was determined from summation of items and dividing them in 3 levels of low (0-54), intermediate (55-108) and high (109-160). The internal reliability of this questionnaire was determined using Cronbach's alpha coefficient of 0.82

Maslach Burnout Inventory (MBI) contains 22 items pointed in 7-point Likert scale and 0 means never and 6 means every day. There were 9 items on emotional exhaustion, 5 items on depersonalization and 8 items were on personal efficiency. The obtained value was placed in 3 levels including low, intermediate and high level. The range of scores for subscale of emotional exhaustion was 0-54; in range 0-30 for depersonalization and to 0-48 for personal efficiency. Job burnout can be diagnosed if emotional exhaustion and depersonalization have gained high score and personal efficiency has gained low score. Maslach and Jackson (2013) reported internal consistency of questionnaire in range 0.71-0.91 and internal consistency of each subscale of emotional exhaustion (r=0.9), depersonalization (r=0.79) and personal efficiency (r=0.71) in favorable level. Scientific validity of the questionnaire was reported to 0.90²³. In the studies in Iran, validity and reliability of the questionnaire was obtained significant, so

General health questionnaire (GHQ-28) as a screening instrument can determine the probability of existence of a mental disorder in person. The said questionnaire has high validity and reliability. Moreover, it includes implementation method, scoring and table relevant to interpretation of values²⁵. More than 70 studies have been conducted on validity of this scale till now and Goldberg (1988 presented meta-analysis of these studies and found that average sensitivity of the GHQ-28 is equal to 84% (range 775-89%) and average feature of that was equal to 82% (range 78%-85%)²⁶. In the study conducted by Besharat (2009) under the title of correlation between tenacity and its components with general health of students; GHQ was validated using total number of revised lists of mental symptoms (SCL-90-R). Reliability coefficient was reported for 4 domains respectively to 86%, 85%, 72% and 82%²⁶.

Data analysis

Data analysis was done using descriptive statistics (frequency, frequency percentage, mean, standard deviation, minimum and maximum) and for the results of statistical tests, Kolmogorov-Smirnov test was used to evaluate the normality of research variables. And then multiple regression was used in SPSS 18.

RESULTS

Table 1 shows the frequency distribution of nurses in terms of demographic variables

Table 1: Socio- demographic information of participants

Variables		Frequency	Percent (%)
Age	20-30 years old	38	19.10
	31-40 years old	124	61.79
	41-50 years old	31	15.38
	Above 50 years old	7	3.73
Marital status	Married	131	65.62
	Single	69	34.38
Gender	Female	122	61.2
	Male	78	38.8
Work experience	1-10 years	7	3.38
	11-20 years	118	59.34
	21-30 years	75	37.28

The findings in Table 1 show majority of nurses (68.79) were in age range of 31-40 years old,

61.2% of them were female, 65.62% were married and 59.34% had work experience of 10-20 years.

Table 2: Sseverity of job stress, burnout and general health of participants

severity of dimensions variables	Low		Average		High		
	Frequency	Percent	Frequency	Percent	Frequency	Percent	
Dimensions of job stress	Contradiction in function	77	38.7	72	35.9	51	25.4
	Overload of duties	10	4.7	52	26.3	138	69
	Responsibility	10	5.2	34	16.5	156	78.3
	Physical environment	18	8.9	57	28.4	125	62.7
Job burnout dimensions	Total job stress level	29	14.41	54	26.74	117	58.85
	Emotional exhaustion	9	4.8	78	39.3	113	55.9
	Depersonalization	135	67.4	56	28.2	9	4.4
	Personal efficiency	21	10.3	84	42.2	95	47.5
General health dimensions	Total job burnout	55	27.5	73	36.57	72	35.93
	Physical symptoms	15	7.7	137	68.6	48	23.7
	Anxiety	10	5.1	61	30.4	129	64.5
	Dysfunction	96	48	60	30	44	22
	Social depression	20	9.7	100	50.2	80	40.1
	General health problems	35	17.62	90	44.8	75	37.58

More than half of the of nurses (58.8%) had high job stress. On different dimensions of job stress, 69% of nurses had stress due to workload, 78.35 % of them due to job responsibility and 62.7% of them due to physical environment. In terms of job burnout, 35.93% of them reported high job burnout. 55.9% of them reported high emotional exhaustion and 47.5% of them reported high personal inefficiency. However, in terms of

depersonalization, 67.4% of nurses reported low level. On general health problems, 37.58% of nurses reported high general health problems. In terms of dimensions of general health, 68.6% of them were in average level in terms of physical symptoms; 64.5% of them were in high level in terms of anxiety; 22% of them were in high level in terms of social function and 40% of them were in high level in terms of depression.

Table 3: Correlation between total burnout scores, general health and job stress of nurses

Variables	Job stress	general health	Burnout
Job stress	-	0/486	0/349
general health	0/486	-	0/353
Burnout	0/349	0/353	-

Based on the findings of this study, there was a statistically significant relationship between all dimensions of burnout, general health and job stress. However, there was a statistically significant relationship between anxiety and depersonalization, depression and emotional exhaustion, between depression and depersonalization and depression and social functioning. not found.

DISCUSSION

The present study was a cross-sectional descriptive study that was performed on 200 nurses working in Shohada Kargar Hospital in Yazd. Data analysis showed that the highest percentage of units (6.2%) were women, in terms of age the highest percentage of units (68.79%) were in the age range of 31 to 40 years and in terms of work experience the highest percentage of units (59.34%) had a history They worked for 10 to 20 years.

Findings showed that 69% of nurses mentioned high stress in terms of workload, 78.3% in terms of responsibility and 62.7% in terms of physical environment. Showed that physical environment and responsibility were the most important stressors in nurses. Regarding burnout, in which

55.9% of the units reported high emotional fatigue, Payami’s research on nurses showed that 39% of them had high burnout ⁹.

Residents reported moderate burnout in three dimensions, which was not consistent with our study ¹⁴. Moderate levels of burnout in the study units. Cabrera Gutierrez reported the rate of burnout among nursing staff, in various dimensions of emotional exhaustion, depersonalization and inefficiency, respectively, 40, 32% and 63%, respectively. The individual inefficiency dimension then reported that these findings are consistent with our findings. The feeling of success and mastery and the feeling of personal adequacy arise when a person can influence the policies of the respective organization and thereby show his abilities and show a positive attitude towards himself and his patients. Goal-finding has become more common in idealistic nurses ⁶. Nurses’ mental health is endangered compared to other sections of society for several reasons.

The most important of these reasons can be the stressful nature of the profession, work pressure, dealing with unexpected situations, work shifts, organizational factors as well as personal factors. On the other hand, as we know, the

responsibilities that they are responsible for doing at work are also the responsibility of the home and children, and this in itself increases the level of anxiety and stress in this segment of society and puts their mental health at risk. Different numbers have been reported about the prevalence of mental health disorders in other parts of the world. Studies reported that main sources of the occupational stress were related to work environment, economic problem long work hours and problems related to worker's children^{27,28}.

Gerald D, for example, reported a 34%, 41% Fagin, and 48.8% mei-song prevalence of mental health disorders among nurses. Regarding the dimensions of general health, in terms of physical symptoms, 68.6% mentioned moderate and 64.5% high anxiety. In this regard, Rahmani et al. (2009) found in their study 50.9% of nurses in terms of physical symptoms. Moderate and 62.7% reported high anxiety²⁹. Khajeh Nasiri (2000) found that 26.9% of nurses in intensive care units had significant depression³⁰. As with increasing job stress, burnout also increased, which is in line with the results of Abdi and Rahmani's study.

Another result of this study is a significant relationship between job stress and general health, which is consistent with the results of the study by Chang et al³¹. In their study, they concluded that reducing environmental stress could improve nurses' mental health²⁹. Nurse's poor sleep led to reduces their quality of life and general health perception, mental status and physical pain³². Also, the findings regarding the relationship between burnout and general health showed that the lower the burnout, the better the mental health. Nurses are higher which is consistent with the results of Payami⁹ Rahmani²⁹ and Moradbeigi²⁰, Murad Beigi in his study showed that the general health of nurses is moderate. By taking measures to reduce burnout, their general health can be improved. In their study, Badri et al. Examined various aspects of general health, and according to their findings, 63% of the samples had high anxiety³³. And 48% of the units had moderate physical symptoms, which recommended that by using strategies to reduce stress and burnout, nurses' mental health could be improved and the quality of nursing care could be increased. Rahmani also showed a significant relationship between job stress and general health in his study²⁹.

The findings of this study can be of great importance. Burnout imposes many consequences and costs on the organization as well as on the physical and mental health of the staff. Of course, these effects on medical staff have adverse effects on proper patient care. Significant prevalence of mental health disorders also requires a significant prevalence of burnout after individual performance, especially among younger staff with less work experience. These

interventions can be called organizational interventions. Many researchers believe that these interventions, such as encouraging teamwork, involving staff in decision-making, job support, reducing conflict and job ambiguities, and increasing control over work-only and non-work-related mental health events, are also positive. It should be done in the workplace, but their training and, of course, seems to be part of the training programs of health care personnel. In the case of a group with severe mental health problems or severe burnout, specialized individual interventions are needed.

The results of the research can be used as a source of information and statistics for the planning of university officials involved in mental health programs. This study can also be used as a study to evaluate the effectiveness of interventions that will be performed to reduce burnout. Providing psychiatric and psychological counseling centers at the hospital level for staff, teaching adaptive methods and mechanisms of adaptation to health care personnel before entering the workplace, providing retraining courses to reduce the increase in brightness. Since fatigue could affect the completion of the questionnaires, so we tried to complete the questionnaires at times when the workload of nurses is less. But issues such as insomnia and lack of rest of the nurse during the past days, family and personal issues and problems of the nurse that could affect the response were not in the hands of the researcher. The researcher also did not have the honesty of the units in expressing the history of mental disorders or diseases such as depression before entering the nursing profession. The researcher also did not have the honesty of the units in expressing the history of mental disorders or diseases such as depression before entering the nursing profession.

CONCLUSION

Overall job stress is high (58,9%) among the nurses in the hospital, the job stress due to overload of duties, job responsibility and physical environment. Around a quarter (35.93%) of nurses reported high job burnout and 37.58% of nurses reported high general health problems. there is significant correlation between general health, job stress and burnout.

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