



## The Sources of Work Stress among Nurses in Private Hospitals in Shiraz, 2016

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### ABSTRACT

**Introduction:** Since there are few studies on stress experienced by nursing staff in private hospitals, this study aimed to determine the sources of job stress among nurses in private hospitals in southwest of Iran.

**Method:** In a cross-sectional design, nurses in private hospitals in Shiraz were investigated; about 160 nurses were selected by single-stage cluster sampling as the study samples in three selected hospitals. A standard questionnaire on the sources of job stress was used for data collection. The data were analyzed through SPSS, version 21, using Mann-Whitney and Kruskal-Wallis tests. The level of significance was considered as 0.05.

**Results:** Five important causes of stress among nurses were low income, lack of job security, work-home interface, lack of enough time for work, and exposure with unsuitable physical situation. There were significant associations between the source of stress and having persons with chronic disease in family and concurrent education and work ( $P = 0.021$ ,  $X^2 = 426.5$  and  $P = 0.022$ ,  $X^2 = 717.5$ , respectively).

**Conclusion:** The sources of job stress should be considered for effective working of the hospital. Attention to nurses' salary and job security reduces job stress.

**Keywords:** Nurse, Stress, Hospital, Salaries, Iran

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### Introduction

In the recent decades, stress-related illness has resulted in organizations' loss of billions of dollars yearly (1). World Health Organization (WHO) explained work-related stress as the response persons may have when presented with job demands and forces that are not harmonized to their knowledge and abilities and which challenge their capacity to cope (2). Prolonged job stress affects the mental and physical health, leading to suppression of the immune system, childhood skeletal growth disorders, reproductive system diseases, deterioration of memory, and depression (3, 4). It is believed that job stress has been attributed to a number of adverse consequences for employees and organizations (5). Effects of stress on performance have been explored for many years (6).

In most jobs and workplaces, especially in health related organizations, there is stress. The modern medical workplace is a complex environment with intense drama (7). Routine work stress issues such as patient admissions,

accountability of serious decisions, and pressure to avoid adverse events were among different aspects of work conditions that have rendered health care practice fundamentally stressful (8).

With the exception of its outcome on the mental, spiritual and physical health, stress in medical personnel may lead to burnout and ultimately affect the quantity and quality of services delivered to patients, resulting in medical errors (3, 9). Moreover, work stress and pressure can affect the planning and decision making extensively while addressing the requirements of patients in a critical care setting (3). It is believed that the origin of many psychological and physical problems is work stress in medical staff and has even been linked to medical errors and suboptimal patient outcomes (6). In this regard, Johnson found that medical staff reported significantly higher levels of work stressors than the general population with an ordinary job (10). Like most other health professions today, nursing job is full of tension and pressure because of the kind of job that demands daily care for patients and constant

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interaction with heavy work requests (11). During the last decade, there has been increasing recognition of the stress experienced by hospital nursing staff (9). To confirm this matter, Kath found that nurses experienced significant job stress (12). Khamisa stated that burnout explained the highest amount of variance in mental health of nurses and it affects workplace and job satisfaction and health of nurses (13). Dagget in a study found that nurses experienced high stress in hospitals (14). Chien stated that although nurses reported moderate levels of job stress in private hospitals, their job satisfaction was negatively correlated with their job stress (15). Khammarnia in his study indicated that nurses suffer from job stress and job burnout (16). Also, Moustaka found that stress in nurses is associated with reduced efficiency, decreased capacity to perform, and lack of concern for the organization and colleagues. He indicated that the nursing and its situations is a source of stress for nurses; however, there is a need to assess other sources of stress in nursing job (9). Since the sources of stress in nurses' workplace is important and few studies have investigated this issue, especially in Iran, this study aimed to determine the sources of job stress among nurses in private hospitals in the southwest of Iran. The finding of the study could be helpful for hospital managers and policymakers to have better planning for the important and sensitive jobs in the health system and create better workplace for nurses.

## Method

A cross-sectional study was designed to survey the sources of job stress among nurses in private hospitals in Shiraz from December 2015 to May 2016. Shiraz is the center of medical care and medical tourism in Iran and is located in the southeast of Iran (17, 18). The study population consisted of nurses in all the private hospitals in Shiraz. Three hospitals (Kosar, Beesat and MRI) were selected randomly and then samples were selected as single-stage cluster sampling from the hospitals. Based on the Morgan Table, about 160 nurses were selected as the study samples in three selected hospitals to identify sources of job stress. The inclusion criteria were having a minimum six months of labor experience in the hospitals and willingness to participate in the study. Exclusion criteria were having more than 29 years' work experience (probably the stress of these individuals is not related to their job) and unwillingness to participate in the study.

To collect the data, we used a validated questionnaire designed by WHO about job stress in 2007 which has 68 questions (19). In this questionnaire, 12 questions were about demographic variables (such as age, marital status, education etc., and 28 questions about exposure with the sources of job stress; the response to each question had 2 items: 1) yes or regularly with score one, and 2) no or sometimes with no score. If a person had exposure with stress factors, he or she got one score and if not, he or she did not get any score. Moreover, there were 28 questions about the impact of the sources of job stress on the persons in the form of five-point Likert scale (1 very low and 5 very high). In addition, reliability and validity was examined in the previous study among nurses in Iran (20). About 160

questionnaires were distributed among the hospital nurses as systematic random sampling as we used the hospital personnel's list.

To analyze the data, we used SPSS version 21 and descriptive statics such as median, standard deviation, mean and quarters. Also, according to Kolmogorov-Smirnov test, the data had no normality ( $P=0.021$ ); then in the analytical phase, we used Mann-Whitney Test and Kruskal-Wallis Test.

Ethical considerations: In this study, we informed all the participants that their participation was voluntary and they could withdraw from the study in case they intend; they were also ascertained that the information of the questionnaires will remain confidential. Moreover, the consent form was obtained from the participants.

## Results

Among 160 samples, 100 subjects participated in the study (response rate was 62.5%), 51 of whom were male (51.0) and 49 were females (49.0). Also, most of them were married (65 persons or 65.0%) and recruitment of 59 persons was annual contracts (59%). Other demographic variables are shown in Table 1.

As shown in Table 2, lack of regular meetings related to the job and, insufficient income, unsuitable vision of the job and inability to improve physical situation were the important stressful factors that the nurses were experiencing.

According to Table 2, low income, lack of job security and integration between work and life were three important and impressive sources of job stress among the nurses.

As shown in Table 3, there was an association between having chronic disease and concurrent education and work with the sources of job stress among the nurses in private hospitals ( $P = 0.021$  and  $P = 0.022$ , respectively). Moreover, there was no association between the sources of stress and age, gender, and education level of the nurses ( $P > 0.05$ ).

## Discussion

This study found evidence of stress among the nurses in Iran that could adversely affect their well being. The study results showed that low income, lack of job security and integration between work and life were the three important sources of job stress among the nurses. Since most of the nurses had contractive recruitment situation and they had to extend their contract with the hospital, this situation and low job security condition resulted in stress among them. In this regard, Knezević indicated that inadequate salary and poor resources, poor management, trouble with superiors, and unpredictable situations were the sources of job stress among the medical staff (21). In addition, the majority of nursing staff are women in Iran. Being a woman and balance between the responsibilities of housekeeping and job is a source of strain and pressure because with extra work, being away from social and family life, they suffer from depression and dissatisfaction in their work. Moreover, a study showed that the six possible sources of job stress for nurses in public hospitals include organizational structure and climate, job itself,

managerial role, interpersonal relationships, career and achievement and home-work interface (11).

**Table 1.** Demographic variables of the nurses in the private hospitals in Shiraz in 2016

variables	Dimensions	Frequency (%)
Age	20-29	36 (36.0)
	30-39	37 (37.0)
	>40	12 (12.0)
Married status	single	31 (31.0)
	married	65 (65.0)
	divorce	4 (4.0)
recruitment	Formal	22 (22.0)
	Pre formal	19 (19.0)
	contract	59 (59.0)
education	Associated diploma	28 (28.0)
	bachelor	54(54.0)
	MS	9 (9.0)
	PhD	1 (1.0)
Concurrency education and work	yes	29 (29.0)
	no	71 (71.0)
Having persons with chronic disease in family	yes	16 (16 .0)
	no	84 (84.0)
Having disable person in family	yes	4 (4.0)
	no	96 (96.0)
smoking	yes	4 (4.0)
	no	90 (90.0)
	sometimes	6 (6.0)

**Table 2.** The ranking of job stress factors and impressive sources of job stress among the nurses in the private hospitals

Rank of job stress factors	Sources of job stress	Frequency of exposure	Percent of exposure	Mean(SD)	Rank of impressive sources
1	Lake of regular meetings to discuss work	83	83.0	2/51 (1.075)	24
2	Low income	77	77.0	3/55 (1.182)	1
3	unsuitable vision of job	70	70.0	3/06 (1.196)	8
4	Inability to improve physical situation	70	70.0	2/99 (1.089)	11
5	Centralization in decision making	68	68.0	2/53 (1.014)	23
6	Exposure with unsuitable physical situation	64	64.0	3/14 (1.207)	5
7	Lake of diversity in work	64	64.0	2/65 (1.082)	22
8	Lake of time for reset	64	64.0	2/87 (1.143)	16
9	Lake of job security	64	64.0	3/49 (1.216)	2
10	Lake of time for done works	58	58.0	3/19 (0.973)	4
11	Lake of support by colleagues	58	58.0	2/80 (1.2)	20
12	Lake of feedback in work	58	58.0	2/85 (1.005)	17
13	Lake of support by manager	52	52.0	2/67 (1.22)	21
14	Low knowledge about assessment	49	49.0	2/81 (0.891)	19
15	Inability to develop skills and talents	49	49.0	3/04 (1.095)	9
16	Irregular works' time	49	45.0	2/88 (1.192)	14
17	Work-home interface:	45	45.0	3/30 (1.229)	3
18	Lake of enough information to do the job	42	42.0	3/10 (1.033)	6
19	Unsuitable behavior from patients and patient family	41	41.0	3/02 (1.196)	10

20	Inability to choose method and quickly work	40	40.0	3/07 (0.905)	7
21	Unwilling to continue cooperation with the hospital	40	40.0	2/50 (1.261)	25
22	Long shifts	39	39.0	2/88 (1.106)	13
23	Having different works and roles	34	33.0	2/87 (1.070)	15
24	Lack of primary education in work	33	33.0	2/95 (1.209)	12
25	Lack of participation in hospital's success	33	33.0	2/44 (1.186)	26
26	Vague job description	32	32.0	2/81 (1.149)	18
27	Apart from the others during the work shift	29	29.0	2/24 (1.173)	27
28	Differential behavior because of sex and race	18	18.0	2/14 (1.207)	28

**Table 3.** The association between demographic variables and impressive source of job stress among the nurses in private hospitals

Variables	Dimension	Median	(Q3-Q1)	X <sup>2</sup>	P value
<b>Shift</b>	Morning	1.089	0.803-1.731	5.84	0.054 <sup>a</sup>
	Evening and night	1.607	1.178-1.892		
	Rotation	1.553	1.285-2.098		
<b>Having disable person in family</b>	Having	2.285	1.517-3.294	83.5	0.056 <sup>b</sup>
	Not having	1.50	0.973-1.883		
<b>Having persons with chronic disease in family</b>	Yes	1.767	1.500-2.187	426.5	0.021 <sup>b</sup>
	No	1.392	0.964-1.857		
<b>Concurrency work and education</b>	Yes	1.642	1.375-2.375	717.5	0.022 <sup>b</sup>
	No	1.339	0.955-1.857		

On the one hand, high levels of stress result in reduced productivity, decreased ability to perform, a lack of concern for the organization and colleagues (9, 16), staff burnout and turnover and adversely affect patient care (9); on the other hand, the negative effects of job stress on female reproduction and rapidly falling fertility rates have been confirmed in the recent years (22); therefore, hospital managers and nursing managers should pay more attention to the sources of stress to prevent their effects. Moreover, work pressure, unsuitable physical situation and lack of information about job were the other sources of job stress among the nurses. In this regard, Moustaka found that work overload and role-based factors such as lack of power, role ambiguity, and role conflict are the sources of job stress (9). Moreover, some studies showed that workload and patients' death were the highest sources of stress among the nurses (23-25). Lack of enough time to done all works among the nurses was a source of stress because of the nurses' workload and nature of nursing work. In addition, Laranjeira found that patient death was the main stressful factor for nurses, followed by emergency situations and low supportive relationships (26). It is notable that we did not ask the participants in the study about patients' death. Illegitimate tasks and lack of adequate comfortable rooms for rest and other facilities for medical staff were known as the source of work stress among nurses (8, 27), which confirmed the finding of this study.

The results of this study showed that nurses who had continued their education experienced more sources of job stress compared to others. It shows that those who continue their education have to spend some of their rest times for their educational roles. Therefore, concomitant education and work is an important source of job so

that they could spend more time for rest and have more peace of mind. In this regard, Lindop found that training programs for the nurses result in stress among them and it was known as a source of stress (28). Moreover, Martos found that concomitant study and work (difficulty of academic work and studying) is a source of stress among nurses (29). Another study confirmed the findings of this study (30).

According to the study findings, having persons with chronic disease in family had an association with the sources of job stress. This issue leads to nurses' attention to be distracted from their patients and their efficacy decreases in the hospital. In this regard, Cousino found that caregivers of children with chronic illness reported significantly greater common parenting strain than those of healthy children (31). Moreover, in some diseases (i.e. asthma, diabetes), greater perceived child vulnerability and overprotectiveness of the child, as reported by the parent, was related with increased common parenting stress (32, 33).

The current study showed that there was no any association between the source of stress and age, gender and marital status. This findings is confirmed by Sahraian's study in Iran (4). In this regard, Al-Aameri found that the effects of demographic factors on the nurse perception of these sources are few (11). Moreover, sources and intensity of job stressors do not vary significantly by gender (?). However, some researches showed that females revealed a higher strain index (6) and nurses who were older had higher satisfaction levels, experienced fewer pressure, and lesser levels of job burnout than younger nurses (23).

In total, this finding is important in reducing the source of stress, medical errors and improving employee satisfactions. Low sample size was a limitation of this

study. Also, reducing the accountability of participants was an important limitation of the study; the researcher could not substitute new participants because of low cooperation of the study population.

### Conclusion

There are many sources of job stress for the nurses in hospitals. The most stressors found were low income, lack of job security and integration between work and life. Hospital managers should deal with these and other stress factors and control them more constructively in a way that positive consequences will be retained, and adverse ones will be removed. Also, they should support the nurses who have disabled persons in household and those who study and work in hospitals simultaneously. Moreover, there is a need for the managers' support and a supportive organization for reducing the nurses' work-related stress, which in turn can generate a helpful caring environment where they are able to provide high quality care. Also, guaranteeing the nurses' job and increasing their salary are other strategies which could reduce job stress. It is recommended that future studies should repeat this study in the public and educational hospitals.

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### Conflict of interest

None declared.

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