

## **Job Stress Sources Among Doctors and Nurses Working in Emergency Departments in Public Hospitals**

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### **Abstract:**

**Background:** Work stress is prevalent problem among healthcare workers particularly those working in the emergency departments as they deal with large number of patients with variety conditions and work over load. The study aimed to explore the sources of job stress and to know the general level of job stress in emergency departments and to investigate the relation between demographic factors and job stress sources.

**Materials and methods:** Descriptive study was used for conducting the study. Questionnaires distributed to 140 health workers in emergency departments and response rate was 93.5%. SPSS was used to analysis the data.

**Results:** The overall level of stress among doctors was quite high. The result revealed that the most common causes of job stress for Libyan health workers were the insufficient technical facilities available at hospitals to meet the patient needs followed by violence from patients and their relatives during the work, then lack of opportunity for training and education at the hospitals. On the other hand, healthcare workers were satisfied with working hours fit with their personal life and the adequacy of salaries compared to effort and work responsibilities. The result showed that there was statistically significant level between job stress sources and all demographics variables.

**Conclusions:** The level of stress was high. In order to reduce job stress, it was recommended that working conditions should be promoted; improved training programs to deal with stressful conditions and protected health workers from patients' abuse.

**Keywords:** Emergency department, health workers, job stress, and Libya.

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### **I. Introduction**

Nowadays, job plays an important role in people life which spends most their time at it (1). Working in stressful conditions can have affect on employees and the organizations as whole (2). For employees, stress occurs when demands of workplace exceed an individuals' ability which challenge their ability to cope (3). In general, 'stress may be referred to as unpleasant state of emotional and physiological arousal that people experiences in situations that they perceive as dangerous or threatening well-being'(4). There are many factors cause stress such as poor working environment, work load and poor relationships with other employees (5). Stress contributes with absenteeism, decrease job satisfaction and turnover (6).In health organizations, occupational stress is prevalent problem particularly in emergency departments which healthcare givers deal with large number of patients who have different conditions and they have to make a quick diagnosis and work efficiently all of these contribute to stress (7).Many studies have been undertaken over the world investigating the causes of job stress among health workers. However, there has been little investigation of these causes in Libya.Masaki Aoki and et al. (2010) in their study on job stress among nurses in Thailand', noted that around a quarter of respondents classified as high risk group of occupational stress also it founded that more than two third of sample had over workload whereas they had good relationships at work (8). Another study was conducted on 103 workers to investigate factors causing job stress concluded that the most important sources of stress were heavy workload, lack of communication and lack of training among respondents (9). Another study among doctors indicated that a high level of stress was related to longer working hours, large number of patients with no appreciation and high expectations (10). Working environment, heavy workload, time pressure and problems with patients were correlated with job stress among 79 district nurses in England (11).

Whereas 300 Australian emergency nurses reported that the highest level of stress was violence against staff and workload (12). A similar study conducted on emergency wards in Iran concluded that the sources of stress were workload, working environment, dealing with patients and their relatives and lack of support (13). Another study conducted in Saudi Arabia, indicated that long working hours and working environments were caused job stress (14). Study conducted on effect of demographics factors on job stress revealed that there was significant effect only with nationality and educational level (15). A study in Jordanian nurses revealed that, nurses were unsatisfied and stress was moderate to extreme in terms of working conditions, staff shortage, difficult patients and hospital management (16). From the above studies, the most common causes of stress were workload, poor relationships, poor working conditions and difficult with patients.

The study aimed to measure the general level of stress and evaluate the sources of job stress among Libyan health workers working in emergency departments in public hospitals in Benghazi and investigate the relationship between sources of job stress and demographic variables.

## **II. Materials and methods**

A descriptive study was used to achieve the research objectives. The data was collected from health workers (doctors and nurses) working in emergency departments in 5 government hospitals (Aljala hospital, Alhori hospital, Benghazi health centre, Jomahoriya hospital, 7 October hospital) affiliated to ministry of health in Benghazi. They constitute almost 50% of the total number of emergency department staff. Questionnaire was used to collect data from targeted employees. It was adapted from review of literature (17). The questionnaire was distributed to a total of 140 doctors and nurses. 131 questionnaires were returned completed which represented a response rate of 93.5%. Questionnaire divided into two sections. Section 1 consisted of 8 items measuring socio-demographic characteristics of respondents. Section 2 consisted of 22 items measuring sources of job stress rated on five –point Likert scale. The scores were calculated for the mean scores which categorised as following: mean scores (1- 1.79) = very satisfied, (1.80 – 2.59) = satisfied, (2.60 – 3.39) = moderate, (3.40 – 4.19) = dissatisfied, (4.20 – 5) = very dissatisfied. Pilot study was carried out on 10 health workers that were not included later in the study sample to test simplicity and clarity of the study tool. To test the reliability of the data, Chronbach's Alpha test was 0.94 which shows that the data has very satisfactory level of reliability. Permission was asked and obtained from the hospital management to collect data. Oral verbal consent of the respondents was obtained before applying the questionnaire and informed them the purpose of the study and they had the right to refuse the participation. Data was analyzed using soft ware package for social sciences (SPSS). The following statistical techniques: frequency, percentage, means, independent T- test and one way analysis of variance (ANOVA) were used. A *P* value of 0.05 or less was considered as statistically significant.

## **III. Results**

### **1.1. First: demographic variables**

Table (1) in the index showed the demographic characteristic of respondents as regards their age, gender, marital status, profession, educational level, and years of experience, income and work place. Nearly two thirds of samples were female and younger age group under 30 years and single. More than half of the studied sample were nurses and hold a diploma degree. Almost half of sample had an experience less than five years and earned less than 1000 dinars monthly.

### **1.2. Second: sources of job stress**

The results showed a high level of job stress among health workers in public hospitals with mean (3.80). In relation to administrative sources, the results indicated that health workers experienced moderate to high stress in terms of administrative factors with (mean 4.3053, 4.2137) respectively were dissatisfied with opportunity for training and education in the hospitals and opportunities for enhancement and development in this hospitals. More than two third of employees could not discuss their problems in the organisation with hospital management and head of department with mean (3.94 and 3.40) and they feel stress from insufficient time to achieve tasks (3.41), lack of participation in decision making (3.83), lack of job descriptions and standards of practice (3.91). From personal sources side, health workers feeling a moderate concern with mean 3.16 in term of interference work hours with their personal life where they felt upset due to absence the staff during the shift duty in the department (3.91) which resulted a heavy workload and daily high expectations in the work (3.65) and high patient volume (3.53). In addition to, no appreciation, aggression and violence from patients and their relatives for the work done caused high stress with mean (4.35) also, health workers expressed that they felt stressed while dealing with critical patients with mean (3.67). In terms of work relationships, more than two thirds perceived that they had poor relationships with other colleagues in the department with mean (3.66) and they did not free to discuss their professional problems with other subordinate at the department and supervisors with mean (3.45). In relation to financial sources, the respondents had a moderate stress with low salaries and financial rewards in comparison to responsibilities and demands of the job (mean 3.36) where they highly dissatisfied with lack of (financial and moral) incentives and rewards (mean 4.21) Stress related place, most health workers were very dissatisfied (mean 4.26) with inappropriate work environment such as ventilation, lighting, air condition, etc also with inadequate office space, staff lounges and toilet areas with mean 4.14. In addition to high level of noise at workplace, short breaks and insufficient technical facilities to meets the need of patients caused stress to worker with mean 3.93, 3.77 and 4.37 respectively. The study showed that there were highly statistically significant differences at (0.05) in job stress sources related to variables of gender and occupation (*p* value 0.008 and 0.009) respectively according to independent sample *t*- test. Also according to the results from (ANOVA) test, the study revealed that there were significant differences at 0.05 between job stress sources and workplace, age, marital status, qualification, income and experience.

#### **IV. Discussion**

In the present study, it was found that stress among emergency health professionals in Libya was manifested this discovery is also strengthened by previous researches that were made in other countries. The results showed a high level of job stress among health workers. This finding was consistent with study by Al-Omar (2003) in Saudi Arabia (14) and Irfana Baba in India (2012); this referred to the nature of the job of health workers were stressful (18). These results were in contrary with the study by Aoki M, et al. (2010) in Thailand which concluded over a quarter of sample had high level of job stress (8). Gholamzadeh S., et al. (2009) identified the sources of occupational stress among nurses in Iran. The main sources of stress were problem related to physical environment, work load, dealing with patients or their relatives and handling their anger, being exposed to health and safety hazards, lack of support by nursing administrators, a physician not being present in a medical emergency and lack of equipment (13). These stressors were similar to those identified in this study. Also on the study conducted on occupational stress among Jordanian nurses by Jaradat (2012) elaborated that work relationships were one of job stressor particularly when communicate with hospital management, staff shortage and unsocial hours (16). Another study in Saudi concluded that the main causes of stress were absence of appreciation from hospital management, long working hours and short breaks (14). These findings were consistent with this study which relationships problems (lack of social support) were obvious mainly in lack of collaboration with other colleagues they work with in addition to poor relations with head department and hospital manager, workload and absence workers during their shift contributed to the level of stress and cannot give optimal care particular when they dealing with large number patients and critical injuries. In contrary, another study among nurses in Thailand emphasised that work relationships at work were good and they had a social support during their work which reflect positively in reducing job stress (8).

Violence at workplace is a serious and prevalent among health workers where is a significant source of stress and the fourth cause of death at the workplace (19, 20), the present study showed that majority of the participants experienced violence during the work was similar to other studies (12) (13) (16). In addition, a previous study in Greece showed that most respondents experienced verbal and psychological violence (21); this is consistent with survey findings which around a half of emergency nurses experienced violence at the work (19). Violence levels were higher at workers working in the emergency departments than others working in other departments (22). As mentioned, physical environment such as poor ventilation, lighting, uncomfortable temperature, air conditions was one of the causes of job stress. Similarly, study conducted by Jaradat R. (2012) in alkarak hospital in Jordan, more than half of nurses experienced extreme stress with working condition at hospital (16). In the same line, study by AL-Omar in Saudi Arabia confirmed that insufficient technical facilities was the first cause of stress among hospital staff which similar to my findings (14). The findings concluded that socio-demographic variables of health workers significantly influenced job stress. In the same line study by Elkahlout & Algaed (2003) was conducted on the effect of socio-demographic factors on job stress, the study underlined that job stress among Saudi nurses were not influenced by age, gender, department of work, job experience, and marital status (15). In contrary, study in Saudi Arabia by Al-Omar (2003) on work stress sources among staff revealed that educational level, gender, marital status and language were not affect work stress (14).

#### **V. Conclusions**

Job stress is a current and future issue as stress has impact on health workers and organization productivity. In this study, it was found out that lack of training with scare of technical facilities and improper work environment were some of the factors that causes stress among the health workers in public hospitals.

#### **VI. Recommendations**

Based on the major findings, the following suggestions were provided:

1. Working conditions in terms of space, lighting and medical equipments should be improved to increase work efficiently and quality of patient care.
2. Manpower should be provided to enhance work efficiently and to decrease workload.
3. Health workers should be participated in decision making and should discuss with their supervisors and colleagues if they have any problems to reduce stress level.
4. Workplace violence policies should be developed to protect health workers from patients and their relative abuse and to create safer work environments.
5. Holing training programs should be arranged to develop employees and update their professional knowledge and to reduce stress among healthcare workers.
6. Constant policy and guidelines should be provided to promotion, increment, and shift work to control health workers effectively.
7. The future research should be made in other cities in Libya also comparative study should be done in different departments in the hospitals.

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**Table (1):** the socio-demographic characteristics of the studied sample

Category	Characteristics	No. Of respondents	Percentage (%)
Gender	Male	45	34.3%
	Female	86	65.6%
Age	Less than 25 yrs	19	14.5%
	From 25- 29 yrs	53	40.4%
	From 30- 34 yrs	40	30.5%
	From 35- 39 yrs	15	11.4%
	From 40 and more	4	3.02%
Marital status	Single	78	59.5%
	Married	48	36.6%
	Divorce	2	1.5%
	Widowed	3	2.2%
Profession	Doctors	54	41.2%
	Nurses	77	58.7%
Educational level	Diploma	69	52.6%
	Bachelor	48	36.6%
	Master and above	14	10.6%
Years of experience	Less than 5 yrs	71	54.1%
	From 5- 9 yrs	41	31.2%
	From 10- 14 yrs	12	9%
	From 15- 19 yrs	6	4.5%
	From 20 and above	1	0.76%
Income	Less than 500	14	10.6%
	From 500 to less than 1000	97	74%

	From 1000 to less than 1500	14	10.6%
	From 1500 and above	6	4.5%
Work place	Aljala hospital	31	23.6%
	Alhori hospital	36	27.4%
	Benghazi health centre	20	15.2%
	Jomahoriya hospital	11	8.3%
	7 October hospital	33	25.1%

**Table (2):** The relation between job stress sources and demographic variables (ANOVA and T- test)

Personal variables	Category	Mean	Std. Deviation	Test- value	P-value
Gender	Male	3.5990	.61111	-2.697	.008
	Female	3.9163	.64791		
Occupation	Doctors	3.6329	.75702	-2.663	.009
	Nurses	3.9337	.53627		
Work place	Aljala hospital	3.9666	.46437	13.629	.000
	Alhori hospital	4.04446	.49468		
	Benghazi hospital	3.8679	.40805		
	Jamahiriya hospital	4.2662	.35042		
	7 October hospital	3.2186	.77126		
Age	Less than 25 yrs	3.9211	.60604	6.143	.000
	From 25- 29 yrs	3.8706	.58405		
	From 30- 34 yrs	3.9741	.57978		
	From 35- 39 yrs	3.1810	.77585		
	From 40 and more	3.1875	.27258		
Marital status	Single	3.8379	.57885	3.418	.019
	Married	3.7999	.71435		
	Divorce	4.4821	.07576		
	Widowed	2.7857	.77262		
Educational level	Diploma	4.1429	.36956	8.996	.000
	Bachelor	3.7662	.60017		
	Master and above	3.8586	.70376		
Years of experience	Less than 5 yrs	3.9492	.51244	5.161	.001
	From 5- 9 yrs	3.8232	.67125		
	From 10- 14 yrs	3.1399	.80185		
	From 15- 19 yrs	3.5238	.87937		
	From 20 and above	3.1071	.65104		
Income	Less than 500	4.1454	.25465	5.140	.002
	From 500 to less than 1000	3.8354	.64820		
	From 1000 to less than 1500	3.6429	.76458		
	From 1500 and above	3.0000	.26726		

The mean difference is significant at the 0.05 level