

Determinants of Workplace Stress Among Healthcare Professionals in Dubai, Physicians Experience

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Abstract

Background: The health sector as a whole and health professionals as a group are at higher than average risk of suffering from conditions related to stress. The national health services is variously reported as being the most, or one of the most, stressful industries to workers. **Objectives:** to study the stress level among physicians working in public health care facilities in Dubai. **Methodology:** A cross-sectional design was utilized in 2011 at the three main hospitals affiliated to Dubai Health Authority in Dubai. The sample size was 353 physicians with 64.2% response rate. Self-administered questionnaire was used. **Results:** The mean total stress score was 47.2. The mean stress factors' scores were as follow: overload disruption to home life (10.7 ± 4.8), feeling poorly managed and resource (8.48 ± 4.00), dealing with blame and anger from patients and relatives (3.9 ± 2.1), dealing with change in practice (4.16 ± 2.02), encountering difficulties in relationships with staff/colleagues (2.17 ± 1.8), dealing with patients' suffering (3.39 ± 1.69) and having managerial responsibilities (3.8 ± 2.23). Mean total stress score was higher among age group 40-50 years (48.9 ± 16.8), followed by age group of ≤ 40 years old (47.9 ± 18.7) and age group of ≥ 50 years old (41.7 ± 15.4). Regarding gender, females scored higher mean total stress than males (49.5 ± 16.3 and 45.4 ± 18.5 respectively). As regard to nationality, Emarati national physicians scored higher mean total stress score than non Emarati national physicians with statistically significant difference (52.5 ± 14.1 and 45.7 ± 18.3 respectively). **Conclusion:** Stress among physician is associated with socio demographic risk factors. Identifying stress generating sources among physicians and filling gaps accordingly can be achieved through developing stress management comprehensive technical and administrative program at the work place.

Keywords

Determinants of Stress, Physicians, Healthcare Professionals, Dubai

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1. Introduction

The terms work stress, job stress and occupational stress are often used interchangeably and are often used to describe an area of practice or study focusing on psychosocial aspects of work that detrimentally affect worker health. The WHO states that "stress occurs in a wide range of work circumstances but is often made worse when employees feel

they have little support from supervisors and colleagues and where they have little control over work or how they can cope with its demands and pressures".¹

Occupational stress or job stress is defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, responses, or need of the worker. Work place stress or job stress is also defined as any characteristic of the job

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environment that poses a threat to the individual, either excessive demands or insufficient supplies to meet the need and lead to a rising tension in a person.²

The global impact of stress-related conditions is expected to rise over this decade such that by 2020, depression and anxiety disorders, including stress-related health conditions, will be second only to ischemic heart disease in prevalence. Although stress can occur at home or after trauma, the most common and studied form of stress is work related. The epidemiological evidence indicates that job stress is rapidly emerging as the single greatest cause of work-related disease and injury.³ The health sector as a whole and health professionals as a group are at higher than average risk of suffering from conditions related to stress. The national health services is variously reported as being the most, or one of the most, stressful industries to workers. It is unsurprising that this has risen sharply in the last few years, following radical reform in the health service.⁴

Stress-related illnesses, such as burnout, among physicians are receiving increased attention.³ Health care workers are exposed to greater job stress, great sense of very high job responsibility and frequent overtime work.⁵ In 2003, nearly half (45%) of the Canadian health care providers, reported that most days on the job were “quite” or “extremely” stressful. This was comparable with 31% of all other employed people.⁶ Hospital-staff in particular are subject to work stress simply because they are severely challenged by their rapidly changing environment. Previous studies have revealed positive association between work-stress and the number of medical errors. In the United States it was reported that preventable errors caused between 44000 and 98000 patients to die every year.⁷

A survey conducted in Germany and involved a quarter of hospital doctors revealed that 22% of them have job strain. Furthermore, about one-fifth of the hospital doctors studied thought about giving up their profession at least a few times per month. Moreover, 44% of them considered that the quality of patient care was sometimes or often impaired by an excessive physician workload.⁸

A dramatic rise in stress related illnesses among Dutch physicians recently derived disability insurance companies to raise premiums by up to 30%. The negative

consequences of stress present a serious problem, not only for physicians' well-being but also for the quality of patient care.³ Consistent with the high levels of stress, national and state figures in Australia show that the health and community services sector has the highest percentage of workers' compensation claims (20% of the total) for psychological distress compared to any other sector.⁹ In addition to its impact on health, job-related stress has been shown to

increase the cost of doing business by as much as \$150 billion per year because of higher levels of absenteeism, worker's compensation claims, accidents, customer service problems, resistance to change, litigation, and loss of intellectual capital.⁹ In the USA, for example, expenditure on health care is nearly 50% greater for workers who report high levels of stress at work.¹⁰ Stressed workers incur healthcare costs twice as high than for other employees. The consequences of stress-related illnesses, from depression to heart disease, cost businesses an estimated \$200 to \$300 billion a year in lost productivity.¹¹

Different studies about levels job stress and satisfaction among physicians, showing variable percentages. For example the level of high job stress and being not satisfied among Canadian gynecologic oncologist was 26% and 8% respectively.¹² Generally, the proportion of doctors and other health professionals in showing above threshold levels of stress has stayed remarkably constant at around 28%, compared with around 18% in the general working population.¹³ A study done about job stress among doctors in Kuala Lumpur hospital (1995- 1996), showed that the prevalence of job stress among doctors was 40.4%.¹⁴ On the other hand, a study in Houston, measuring occupational stress among physicians, showed abnormal scores recorded by 31% of physicians on at least the demographic characteristics that related to stress.⁴

As stress among physicians is an important factor that may affect their work and the outcomes, this study was designed to investigate the stress among physicians working in public health care facilities in Dubai.

2. Methodology

A cross-sectional study was utilized in 2011 at the 3 main hospitals affiliated to Dubai Health Authority in Dubai (Rashid, Dubai, and Latifa hospitals). Five hundred and fifty questionnaires were distributed among all physicians (comprehensive sample) in the three hospitals after obtaining the verbal consent. The sample size was 353 physicians out of 550 with 64.2% response rate. Out of 353 questionnaires returned, 282 were complete and eligible for analysis. Self-administered questionnaire was used. The questionnaire contains 4 sections; socio-demographic data, habits and life style, occupational data, and assessment of job satisfaction.

The total score of job satisfaction was divided into low, moderate and high according to scores below 50th percentile, above 50th to 75th percentile and equal to or above 75th percentile respectively. For total satisfaction score, low < 38, moderate 38 to < 46 and high ≥ 46.

3. Results

Table 1. The mean score of the total stress and stress factors among Dubai hospitals' physicians.

Stress Domains Number = 282	Mean	Std. Deviation
Total Stress Score	47.22	17.633
Overload disruption to home life	10.68	4.758
Feeling poorly managed and resourced	8.48	4.003
Dealing with blame and anger from patients and relatives	3.91	2.076
Dealing with change in clinical practice	4.16	2.015
Encountering difficulties in relationships with staff/colleagues	2.17	1.811
Dealing with patients' suffering	3.39	1.689
Having managerial responsibilities	3.81	2.232

Table (1) shows the scores of total stress and stress factors. The mean total stress score was 47.2 with standard deviation of 17.6 (n = 282). The mean stress factors' scores were as follow: overload disruption to home life (10.7± 4.8), feeling poorly managed and resource (8.48 ± 4.00), dealing with blame and anger from patients and relatives (3.9 ± 2.1), dealing with change in practice (4.16 ± 2.02), encountering difficulties in relationships with staff/colleagues (2.17 ± 1.8), dealing with patients' suffering (3.39 ± 1.69) and having

managerial responsibilities (3.8 ± 2.23). There was no statistical significant difference between the three categories of age group. However, mean total stress score was higher among age group between > 40- < 50 years old (48.9 ± 16.8), followed by age group of ≤ 40 years old (47.9 ± 18.7) and age group of ≥ 50 years old (41.7 ± 15.4). Regarding gender, females scored higher mean total stress than males (49.5 ± 16.3 and 45.4 ± 18.5 respectively).

Table (2) illustrates the mean total stress score among physicians in hospitals according to socio-demographic characteristics (n = 282). There was no statistical significant difference between the three categories of age group. However, mean total stress score was higher among age group between > 40- < 50 years old (48.9 ± 16.8), followed by age group of ≤ 40 years old (47.9 ± 18.7) and age group of ≥ 50 years old (41.7 ± 15.4). Regarding gender, females scored higher mean total stress than males (49.5 ± 16.3 and 45.4 ± 18.5 respectively) but there was no statistical significant difference in mean total stress score between the two groups.

Table 2. Mean total stress score among Dubai hospitals' physicians according to socio-demographic characteristics.

Socio-demographic characteristics Number = 282	X ± SD	Test of significance
Age		
≤ 40 (n = 166)	47.91 ± 18.663	F = 2.753 (P = 0.066)
>40 - (n= 65)	48.86 ± 16.776	
≥ 50 (n = 50)	41.67 ± 15.366	
Missed cases (n = 1)		
Gender		
Female (n = 133)	49.45 ± 16.277	t= 1.934 (P= 0.054)
Male (n = 149)	45.39 ± 18.522	
Nationality		
UAE national (n = 63)	52.47 ± 14.059	t= 2.742* (0.007)
Non UAE national (n = 219)	45.67 ± 18.295	
Marital status		
Single (n = 42)	45.74 ± 14.961	F = 1.039 (P = 0.376)
Married (n = 234)	47.21 ± 17.977	
Divorced (n = 5)	58.17 ± 17.046	
Widowed (n= 1)	34.00	
Living with family		
No (n = 15)	42.36 ± 21.327	t=0.943 (P = 0.346)
Yes (n = 266)	47.49 ± 17.510	
Missed cases (n = 1)		
Education level		
Bachelor (n = 70)	51.78 ± 15.295	F = 3.057* (P = 0.049)
Master (n = 125)	46.24 ± 19.290	
PhD or equivalent (n = 86)	45.27 ± 16.495	
Missed cases (n = 1)		

*P < 0.05 (significant)

4. Discussion

The percentage of studied physicians with high total job stress score was 26.2% while percentage of those with low total job satisfaction score was 51.5%. The result of job stress among physicians was similar to many studies such as 28%

in UK¹³ and 26% in Canada.¹² Furthermore, a study conducted in Egypt (2008),¹⁵ about job satisfaction among physicians reported that 57% of them were not satisfied while a study conducted on Norwegian doctors in 1998 showed that 50% of the sample studied was not satisfied with their jobs⁶⁸. Lin et al., (2009)¹⁶ investigated the job strain profile and its determinants of staff working in disability

institutions in Taiwan.

The results showed that many staff characteristics were correlated with job strain, such as staff working hours, age, gender, job title and educational level. Socio-demographic factors such as gender, age and marital status are presented as independent predictors of vulnerability to job strain. Although females had apparently higher stress score than males in this study but gender in common did not reveal a significant association with stress or satisfaction scores. The female physicians often find themselves compelled to fulfill a number of roles (mother, spouse, doctor) at home and at work to the highest standards concurrently. Different roles give rise to certain sets of role expectations which may necessitate responses and tasks that may be competing or antagonistic. The compliance with one would make compliance with the other more difficult, the concept called role conflict. Role conflict has been identified as a key component of the stress response.¹⁷

The current study showed that UAE national physicians were significantly more stressed. Although further studies are needed to find out the reasons or causes of high stress among UAE national physicians, it might be referred to certain reasons. The UAE national physicians might feel more relaxed to express their stress and dislike about their job in comparison with non UAE physicians. In addition, the UAE physicians might not have the required experience and confidence to deal with health problems due to lack of exposure to such problems as comparing to non UAE physicians. A study of correlates of job satisfaction among health care professionals in Kuwait showed that Kuwaiti and non-Kuwaiti Arabs were more satisfied compared to Asians/others.¹⁸

5. Conclusion

Stress among physician is associated with socio demographic. Identifying stress generating sources among physicians and filling gaps accordingly can be achieved through developing stress management comprehensive technical and administrative program at the work place.

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