ORIGINAL ARTICLE

Frequency of Stressful Activities Amongst Doctors, Engineers and Teachers

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ABSTRACT

Background: Different professions are under a great deal of stress related to a variety of occupational stress factors. These factors contribute to decreased job satisfaction, decreased work output, mental and physical exhaustion and absenteeism due to sickness. It often occurs when individuals' cannot cope with their job demands, physically or emotionally.

Objective: To determine the frequency of stress among three highly challenged occupations which are doctors, engineers and teachers.

Methods: The cross sectional study was conducted in the District South of Karachi using separate questionnaires for doctors, engineers and teachers. In this research the total of 600 individuals were included, 200 from each profession. Only those individuals were surveyed who are currently working in government institutions of this district. The data obtained was analyzed using SPSS v.20.

Results: The results showed that engineers are under a higher level of stress as compared to doctors and teachers. Workload, lack of power and influence, office politics, inadequate or poor quality of training/management development and lack of encouragement are the major factors that are contributing to build stress in engineers.

Conclusion: As the frequency of stressful activities found higher in engineer, their **w**orkload should be minimized and divided among the relevant posts rather than putting the entire burden on an individual. Office politics must be discouraged as this has proved to have detrimental effects on individual's life. Lack of knowledge, power, influence, training and encouragement has led to increased stress. Stress management programs will improve management, and good intrapersonal relationships.

KEY WORDS: *Stress, frequency, Profession.*

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INTRODUCTION

Stress has become a part of our lives these days, and especially students who have to cope with the stress to prepare themselves for their professional career. Term stress is now widely used to describe the state of tension often seen as being related to modern life. Stress is a multi-dimensional concept.[1] It often occurs when individuals' physical and emotional states do not match or cannot handle their job demands, constraints and/or opportunities.[2] Two major types of stress: eustress (good stress) and distress (bad stress) has been identified.[3]

In terms of eustress perspective, occupational stress occurs when employees' knowledge, skills, abilities and attitudes can cope with or match to their work demands and pressures in organizations. In this situation, it may increase the ability of employees to manage their physiological and psychological stresses.[4] Conversely, in a distress perspective, occupational stress presents when employees' knowledge, skills, abilities and attitudes cannot cope with or do not match to their work demands and pressures in organizations.[4] Consequently, it may decrease the ability of employees to control and manage physiological and psychological stresses, such as disturb their self-regulatory bodies, and cannot meet their duties and responsibilities as a member of an organization.[5]

Stress condition happens when one realizes the pressures on them, or the requirements of a situation, are wider than their recognition that they can handle, if these requirements are huge and continue for a longer period of time without any interval, mental, physical or behaviour problems may occur.[6] An individual personality and job nature at workplace do have influence on workers.[7] Number of studies indicate the most of the teachers and doctors find their work very stressful and has been found that occupational stress precipitate both mental and physical health problems.[8,11] These stresses cause psychological and psychiatric issues.[9]

The study aims to find out frequency of stress among three highly challenged occupations which are doctors, engineers and teachers.

METHODOLOGY

A cross-sectional study conducted at various government run institutes like medical and engineering universities, engineering firms, tertiary care hospitals, and schools in district South of Karachi. The duration of study was 4 months in which around 600 individuals were surveyed. Sample selected on the basis of purposive sampling technique. Professionals were questioned about the circumstances that lead to stress. The data thus collected is entered and analysed using SPSS v.20. Continuous variables (age, income) were presented as mean and standard deviation while categorical variables (gender, marital status, stressful activities) presented as frequency and percentages. Only those individuals are included in the sample that have completed their graduation and work in government run professional institution. Permissions from the directors of different hospitals and institutions were obtained before surveying their respective institutions. Similarly permissions from District Education Officers (D.E.Os) South Karachi were also obtained.

Currently, in Pakistan no studies have been conducted to find out the frequency of stressful activities among doctors, engineers and teachers. We therefore undertook this study to see the frequency of stress causing activities among these professionals.

RESULTS

In our research three professions were included viz. doctors, engineers and teachers. Six hundred (600) subjects were surveyed, out of that around 200 doctors were approached. In table 1, their mean age was calculated 29.2 ±

SD1.26 (37.5%). Out of these 55 were males (27.5%) and 145 females (72.5%). Most of the doctors participated had income (PKR) of 25,000 ± SD 2.3. Majority of the doctors were postgraduates (f = 86, 43%) and 114 (57%) were RMO (Resident Medical Officer). Married doctors were 84 (42%) and 116 were single (58%). Questionnaire which was made to find sources of work pressure in doctors (table 3) showed frequency of irregular schedule with constant thoughts of patients in mind 57 (28%) , difficult patients 71(35.5%), work environment in hospitals 76 (38%), poor recognition and value of worth 67 (33.5%), and I have to study much to get familiar with everything under medicine 73 (36.5%).

Around 200 engineers were also questioned. In table 2, their mean age was calculated 33.2 ± 1.89 (22.4%). Out of these 147 were males (73.5%) and 53 females (26.4%). Most of the engineers participated had income of 50,000 PKR (f = 35, 17.5%). Majority of the engineers were graduate (f = 108, 54%). Single were 71 (35.5%) and 129 were married (64.5%). Table 5 showed People lacking motivation were 89 (44.5%), too many people in one class was 69 (34.5%), Excessive overload was 75 (37.5%), Changeable education policy of government 76 (38%) and people's misbehaviour was 93 (46.5%).

Similarly 200 teachers were questioned. Table 3 revealed mean age was calculated 38.6 ± SD 2.3 (7%). Out of these 56 were males (28%) and 144 females (72%). Most of the teachers participated had a teaching experience of over 10 years (f = 105, 52.5%). 5 questions out of total 13 in Section 3 were found to be statistically significant (table 6), too much work to do 73 (36%), Lack of power and influence 60 (30%), coping with office politics were 52 (26%), poor quality of training or management 56 (28%) and lack of encouragement 61 (30.5%).

Table 1: Socio-demographics of Doctors

S. No	Variables	Frequency	Percentage
1	Age	29.2+-SD 1.26	
2	Gender Male Female	 55 145	 27.5 72.5
3	Income (PKR)	25000	
4	Married	84	42
5	Single	116	58
	Postgraduate	86	43
	RMO	114	57

Table 2: Socio-demographics of Engineers

S. No	Variables	Frequency (n)	Percentage (%)
1	Age	33.2± SD 1.89	
2	Gender Male Female	 147 53	 73.5 26.4
3	Income (PKR)	50,000	
4	Married	129	64.5
5	Single	71	35.5
	Graduates	108	54

Table 3: Socio-demographics of Teachers

S. No	Variables	Frequency (n)	Percentage (%)
1	Age	38.6+-SD 2.3	
2	Gender Male Female	 56 144	 28 72
3	Income (PKR)	30,000	

4	Marital status Married Single	 88 112	 44 56
6	Over 10 years of service	105	52.5
7	Under 10 years of service	95	47.5

Table 4: Frequency of stressful activities among Doctors

S. No	Variables	Frequency (n)	Percentage (%)
1	Irregular schedule with constant thoughts of patients in mind	57	28.5
2	Difficult Patients	71	35.5
3	Work Environment in Hospital	76	38
4	Poor recognition and value of worth	67	33.5
5	Study too much to get familiar with everything under medicine	73	36.5

Table 5. Frequency of stressful activities among Engineers

S. No	Variables	Frequency (%)	Percentage (%)
1	People lacking motivation	89	44.5
2	Too many people in one class	69	34.5
3	Excessive overload	75	37.5
4	Changeable education policy of government	76	38
5	People's misbehaviour	93	46

Table 6. Frequency of stressful activities among Teachers

S. No	Variables	Frequency	Percentage
1	Too much work to do	73	36.5
2	Lack of power and influence	60	30
3	Coping with office politics	52	26
4	Poor quality of training or management	56	28
5	Lack of encouragement	61	30.5

DISCUSSION

The purpose of the study was to look for frequency of the stress among three professions; doctors, engineers and teachers. The literature reinforced the need for the present study by showing the lack of consistency of findings regarding the impact of stress on different professions. By looking at the frequencies and percentage, we can clearly see the stress level in different professions like doctors, engineers, and teachers.

Similar study was done in doctors revealed a very high job stress level in doctors. High severity of job stress included high frequency of job stress, work-load, female doctors felt significant lack of support on job stress severity.[10]

Our study showed socio-demographic of doctors with average age 29 years and more females than male doctors. Whereas engineers average age were 33 years and more males. Teachers were with average age 39 years and more females. Table 4 revealed work environment in hospital more stressful, whereas, table 5 revealed that engineers have clearly a high level

of stress. In table 6, workload was the main cause of increased stress in teachers.

This data shows deviation from what we hypothesized i.e. doctors will have higher stress levels due to their critical job description[11]. Far too much work to do, lack of power and influence, coping with office politics, inadequate or poor quality of training/management development and lack of encouragement have contributed to increase in stress in engineers than the other factors. Workload on engineers especially field engineers has added on to the stress level of engineers. The increment of income is directly related to the number of years' experience and thus the amount of work. Engineers also have lack of power and influence over their juniors in the firms they work for as all the engineers working are answerable to the project head. A common problem in all professions is office politics which has somewhat more influence in engineers. Many individuals try to earn their boss's attention by flattering and buttering etc. which ultimately leads to back biting and false accusations regarding fellow colleagues. This creates an environment of office politics and groups to which many engineers fall victim. Coping with such kind of negativity has led to increase in stress among engineers which our data has clearly shown. Inadequate or poor quality of training/management development has major implications in engineers' life.

Comparing with other professions like doctors and teachers, there is considerable lack of training and management among engineers. Lack of regular educational seminars, symposiums, training workshops, etc. has led to lagging behind of many engineers than others and thus those engineers who are not up to date with the current advancements in their line of field tend to lose the eligibility criteria of most working firms which require that their engineers should have the most recent updates about their field. Another factor that has come up in our study which has proven to increase stress in engineers is the lack of encouragement. This factor has more or less varying degrees of implications in every profession. Possible explanation to this is that the engineers are not encouraged about their work. Seniors feel that encouraging their juniors make them proud and ultimately leads to lower level of output. Fellow colleagues abstain from encouraging others because they feel that doing so may supersede others in their boss's eyes for their good work and in other words would be barrier in their own promotion. Secondly this leads to lower output of those engineers who are not appreciated or encouragement because they think whether they do less or more work it would not be appreciated so it's better not to put more effort.

Most of the analysis is based on surveying professionals who face stress in their lives. The biggest limitation could be if most of the people provide incorrect information or abstain from providing complete information. Another limitation in our survey is that as we have targeted the professionals working in district South of Karachi in government run institutions only and hence, results are approximate and will not be fully applicable to the professionals working all around the globe. Our study is limited to only above mentioned professions. There is utter need to explore stress level among other various professions which are even more stressful than these because of poverty, stressful jobs like policemen, soldiers, lawyers, workers on daily wages and labourers, accountants, managers, businessmen and other professions. Sample size was not calculated.

In order to reduce the frequency of stressful activities in doctors, engineers and teachers, it is highly pertinent that the workload should be reduced by appointing more people, work environment in hospitals should be worked on, work-force should be motivated and encouraged regularly.

CONCLUSION

Work stress is inevitable, but it's the mismanagement of stress that should be taken care of. There is a need to cultural change in the professional, how to deal with demand of the job. The findings of this study are consistent with other studies, indicating frequent stressful activities among doctors, engineers and teachers.

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