

Occupational Stress among Nurses of Tertiary Care Hospitals in Karachi, Pakistan

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ABSTRACT

Objectives: Stress is physiological and psychological response towards any occurrences. It is very much vital to learn about occupational stress because as it deters health and decreases the quality of work of nurses. The main objective was to determine prevalence, intensity and causes of occupational stress among nurses.

Materials & Methods: Hospital based analytical cross-sectional study was conducted from January to November 2015 at two tertiary care teaching hospitals of Karachi. The study was carried out on 265 registered nurses, having valid license by Pakistan Nursing Council. Convenient nonprobability method was used to access subjects. After taking consent, semi-structured and pre-tested occupational stress questionnaire was used to obtain the data. Data was entered and analyzed in SPSS version 21.

Results: The study results revealed that majority of nurses 125 (47.2%) were between 25 to 30 years of age. Maximum ratio of nurses were female 160(60.4%) and out of them 148(55.8%) were married. Two hundred and one (75.8%) were diploma holders in nursing, while only 2(0.8%) had done their master in nursing. The study participants reported to suffer with job related stress; mild stress 2.0%, moderate stress 36.5% and severe 61.5%.

Conclusion: The current research paper gave an awareness of problem related to occupational stress among Nurses at tertiary care hospitals. The study outcomes established conclusively that an overwhelming portion of nurses' population, setting their demographic characteristic aside faced moderate or severe job stress that may cause damaging effect on their professional, inter-personal skills, and social accountabilities.

Key words: Nurses, stress, occupational stress, tertiary care hospitals, Pakistan

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INTRODUCTION

Nursing profession is recognized as a gratifying and rewarding profession while it is also identified as a very stressful profession. Severe and moderate level of occupational stress decreases nurses overall health including mentally, physically and socially^{1,2}.

Perpetual workload, lack of autonomy, lack of status, lack of resources, conflicts, reduced pay scale, and lack of motivation are key factors responsible for developing occupational stress among nurses³. It is documented that nurses look after many patients and fulfill several tasks as well. Thus, nurses are overburdened and an undue victims of job stress^{4,5}. It

has been confirmed by recent research that one in five nurses wish to quit their job and 40% nurses experience considerable burnout. Consequently, burnout is the leading source of causing job stress⁶.

It has been affirmed by current research that Occupational stress is the significant problem among nurses in several parts of the world⁷. Further, recent research suggests that several work-related stressors are associated with nursing including poor social support, lack of knowledge as well as noise pollution⁸.

It is affirmed by another recent research that occupational stress is very dangerous for nurses and for the organization. It deters nurse's health both physically and mentally during job. Physically and mentally disturbed nurses feel ill and insecure on the duty, so the elements such as illness, lack of motivation, insecurity can cause stress among nurses at workplace. Occupational stress has significant impact on organizational overall growth. Additionally, organizations whose employees are stressed may turn out unsuccessful, less productive and less dynamic⁹

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Documentary evidence by research shows that role boundary and role insufficiency are leading indicators for occupational stress among nurses¹⁰. Research study conducted in Delhi, India shows that Indian nurses are extremely overburdened and the prevalence of occupational stress among Indian nurses are very high¹.

Similarly, the nurses have enormous workload in Pakistan and nurse to patient ratio is 1:50 in hospital. Therefore, nurses working in the hospitals setting in Pakistan are extremely overloaded¹¹. However, Pakistan Nursing Council proposes one nurse for 10 patients and two nurses for one patients in general wards and specialized units respectively¹².

However, stress to a gross extent has been considered as a positive stress and employees take every task seriously and try to achieve the desired goal. This positive stress helps to improve the efficiency of the employees whereas extremely increased level of stress has some detrimental consequences¹³. Moreover, excessive occupational stress can lead to diminished working capability and decreased life quality of employee¹⁴. Present study helps to determine the frequency, sternness and reasons of work related stress among registered nurses in hospitals of Pakistani context.

MATERIALS & METHODS

The study design is analytical cross-sectional. This study was performed at dual tertiary care medical institutions (Civil hospital and Dow University hospital) of Karachi.

The study subjects were both male and female registered nurses with full time Job, however serving either in Regular or contract basis with two years working experience. Further, valid license holders by Pakistan Nursing Council were approached in this study. Two years work experience was included because nurses can understand the working environment and perceive the stressors at work place.

Those nurses who refused to give the consent were excluded. Convenient nonprobability method was used to access subjects. The study duration was 11 months from between January and November 2015. Calculated sample size was 265 subjects including both genders.

Data was collected after the approval by IRB (Institutional review board) and BASR (Board of Advanced Studies and Research) of Dow University of Health Sciences, Karachi for collecting the data. Permission for conducting study was obtained from both Tertiary care hospitals. The participation of subjects was voluntary. The participant who reported severe stress was referred to psychiatrist for counseling.

Subjects were recruited by convenient nonprobability method and prior permission of head nurses. Subjects were inquired and helped in finalizing semi-structured pro-forma comprising socio-demographic info and semi-structured occupational stress questionnaire. The participants were approached for data collection in the morning shift, evening shift and night shift duty. Only Registered nurses of Civil hospital were approached on their working place on Monday and the same Registered nurses of Dow University hospital were approached on their working place on Saturday. A validated "Occupational stress questionnaire" developed by Bhatia N, (2010)¹ was adopted after modification.

Pilot study was conducted on 10% of total sample size. The subjects included in pilot study were excluded from the original study. The study was piloted at Dow University Hospital and Civil Hospital Karachi. A minor vagueness on some questions was noticed and rectified.

The reliability of the questionnaire was checked by Chronbach's Alpha test. The result of this test showed that the questionnaire is 91.4% is reliable. SPSS version 21.0 was used to enter and analyses of the data.

Chi-square test was used for relationship of the differences among sex, age, matrimonial status, period's liability and amount of work alongside the conclusion variable. Significance level was deliberated at a p-value of 0.05.

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008. Informed consent was obtained from all patients for being included in the study.

RESULTS

A total of 265 nurses contributed to the study, 125 (47.2%) nurses were between age 25 to 30 years. Out of total, 160(60.4%) major chunk was female and 148(55.8%) were married. Majority of nurses 201(75.85%) completed diploma in nursing, 62(23.40%) were BSN Post RN graduated, while only 2(0.8%) had done their master in nursing.

26 (9.8%) nurses were serving in the capacity of head nurse and 239 (90%) as staff nurse.

Out of the total 265 nurses, 168 (63.4%) nurses were working in morning shift and 32(12.1%) are working double job. Majority 218 (82.3%) were working as

regular employee. Out of total, most of the nurses 110(41.5%) live 10 to 20 km from their work place. The majority 109(41.1%) nurses had been working for 1 to 5 years at the time of study. Approximately one third 86 (32.5%) nurses had been earning above 44,000 PKR.

In Table 2, the stressors are directly related to nurses Jobs. Majority 195 (73.6%) of the nurses strongly agree / agree that they were required to travel a lot for their job. Only three nurses strongly disagreed that their job required high skill. Approximately 60% of nurses said that their job does not allow freedom to decide how they work. 91 nurses disagreed with the statement there was much pressure of work by doctor. More than half 152(57.4%) of nurses agreed that their job is very hectic. Majority 196 (74%) of nurses claimed that they have to attend many patients. Only 14% nurses strongly agreed to the fact their supervisor/senior nurse are not cooperative and unlike 69 (26.0%) told that there is pressure to learn new things in their job. Out of total nurses, 172(64.9%) nurses stated that there is insufficient sleep and frequent call in their job.127 (47.9%) had stress due to high rates of deaths among patients in their hospital. Moreover, 27.5% (75) participants agreed or strongly agreed to report sexual harassment.

Table 1: Demographic information of study participants

Information	n	%
Age (Years)		
25-30	125	47.2
31-35	42	15.8
36-40	46	17.4
41 & above	52	19.6
Gender		
Male	105	39.6
Female	160	60.4
Marital status		
Single	114	43.0
Married	148	55.8
Widow	3	1.1
Qualification		
Diploma in nursing	201	75.8
BSN post RN	62	23.4
MSN	2	0.8

Figure 1. presents that percentage of various stressors directly related to Nurses Job. The figure shows that 1.89% nurses had a mild stress. However, 36.60% nurses had moderate stress following the highest pattern, 61.51% majority of nurses having severe stress related to job.

Eighty-two nurses were diagnosed as severely job stressed whereas 43(34.4%) nurses had mild / moderate everyday life stress in that age group (p= 0.06). Job designation and working hours had no statistically significant effect on stress at job. Data showed that double jobs or studying along with job had no impact on stress levels at job place. Stress related to job was found almost similar among regular and on contract employees. Distance from workplace and work experience also had statistically insignificant impact on job related stress.

Table 2. Percentage distribution of Various stressors directly related to nurses Jobs

Stressors	Strongly stress	Agree	Neither agree/ disagree	Disagree	Strongly disagree
Frequency (%)	n (%)	n (%)	n (%)	n (%)	n (%)
you are required to travel a lot in your job	101 (38.1)	94 (35.5)	42 (15.8)	21 (7.9)	7 (2.6)
your job required high level of skill	101 (38.1)	115 (43.4)	40 (15.1)	6 (2.3)	3 (1.1)
your job does not allow you freedom to decide how do you work	75 (28.3)	82 (30.9)	67 (25.3)	32 (12.1)	9 (3.4)
there is much pressure by doctor	52 (19.6)	66 (24.9)	56 (21.1)	75 (28.3)	16 (6.0)
your job is very hectic	54 (20.4)	98 (37.0)	59 (22.3)	41 (15.5)	13 (4.9)
you have to attend many patients	106 (40.0)	90 (34.0)	39 (14.7)	18 (6.8)	12 (4.5)
you are exposed to sexual harassment by team members	23 (8.7)	50 (18.9)	49 (18.5)	46 (17.4)	97 (36.6)
your supervisor/ seniornurse are not cooperative	37 (14.0)	73 (27.5)	71 (26.8)	57 (21.5)	27 (10.2)
there is pressure to learn new things	69 (26.0)	87 (32.8)	73 (27.5)	30 (11.3)	6 (2.3)
there is insufficient sleep and frequent call	92 (34.7)	80 (30.2)	52 (19.6)	37 (14.0)	4 (1.5)
there is stress due to high rates of deaths among patients	48 (18.1)	79 (29.8)	61 (23.0)	62 (23.4)	15 (5.7)

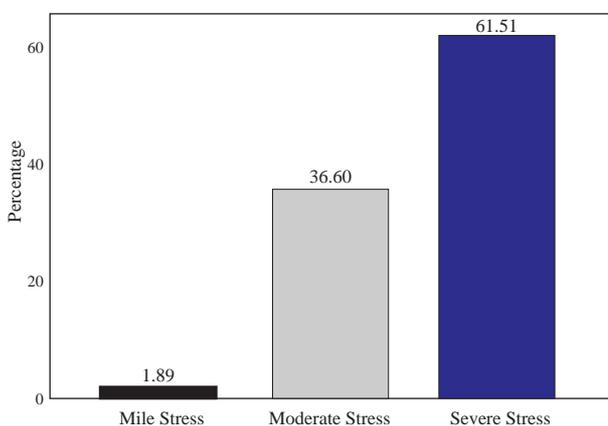


Figure 1: Various stressors directly related to Nurses Job

DISCUSSION

Stress is a multidimensional phenomenon and many studies signify that medical professionals such as nurses have multiple types of stress in their occupational span. It has been recognized that nurses are backbone of any health care system.

Yet at the same time they remain under stress due to their job responsibilities in addition to other professional commitments. Factors such as workload, procedural injustice, role ambiguity, conflicts in family or at workplace and environment affect the job performance¹⁵. However, there is a limited research on job stress in relation to health in developing countries¹⁶.

In a few studies, the stress of job on nurses is focused, like in a study carried out in India¹, the average age of nurses was 32.5 years. (Ranging from 19 years - 41 years). In another study¹⁷ the subjects stayed up to 20-50 years of age. The afore-mentioned study concurring results were almost alike the Indian study due to the fact that the age group of nursing participants in this study was also 25 to 50 years. Rendering to the present study, stress turned more severe as older subjects rose, though it was not statistically significant as such. (P=0.06).

In further studies, the mean of working-experience of the nurses was 7.8 years and 16 years (1, and 23 respectively). In another study¹⁸ the work experience of nurses was from 1 year to 16 and above years. In a study it was reported that majority (52.6%) of the nurses had up to 10 years of experience. In this study also majority (66.0%) have work experience up to 10 years. The overall working experience ranged from 1 year to 30 years.

Regarding age and marital status of nurses, in a study¹⁶ majority 76.7% were females and %). Similarly, in another study¹ major number of (80.4%) participant was married.

In the current study, subjects were also comparable to those as 60.4% of the participants were females and 39.6% were males and 55.8% of them were married. While gender and marital standing was not establishing any significance in terms of a stressor on professional health care providers. (P=0.98 & P=0.79 respectively.) Regarding qualifications of the nurses, according to a study¹⁹ majority (60.9%) were graduates. In a study¹⁹ it was calculated that in the United States only 12% nurses have a master degree. In our study also, majority of the participants were either simple diploma holder in nursing (75.8%) or only 23.4% were graduate and only 0.8% had master degree.

In a study¹, the nurses who claimed their jobs free from stress were having mean duration of job 5.64 years whereas nurses whose mean years of working was 10.14 find their jobs extremely stressful. The same study resulted that 87.4% of the participants found their job stressful but 32.2% found it extremely stressing. In another study¹⁹ no nurse claimed to be stress free unlike 46.7% showed mild stress, followed by 40% moderate and only 13.3% severe stress. In a study²⁰ the mean of the stress was 30.39 ± 7.27 . In another study²¹ the results showed significant correlation between nurses' performance and components of job ($r=0.53$). It was identified that no significant correlation between stress level and some demographic information such as quality of life or occupational stress and factors like position, shift, ward, experiences, time off, overtime hours, interest in desertion and education occurred²¹. In contrast, another study²² showed significant relationships to job satisfaction ($p < 0.01$): job stress (-0.568), and psychological empowerment (0.482). In this study the job related stress was found mild in only 2.0% cases, on the other hand, it was found moderate in 36.5% participants jumping to severe in 61.5% participants.

Limitations: This study was carried out in two public sector tertiary care hospitals of Karachi so results cannot be generalized for all population. The participants in the study belonged to urban setting of hospitals. Thus; the results could not be applied to nurses of the hospitals in rural area settings. The study was conducted in public sector hospitals, so it can figure level of stress out among nurses working in private sector.

CONCLUSION

The current research paper gave an awareness of problem related to occupational stress among health care givers (Nurses) at tertiary level in the hospitals. The study outcomes established conclusively that an overwhelming portion of nurses' population setting had reported moderate and occupational stress level that may deter their professional and social accountabilities. Ultimately, it is suggested that occupational stress ought to be reduced by implementing suitable management and radical changes in service environment atmosphere. These results may benefit nurses to improve mental health as well as to cope with stress level that empower nurses to ensure quality patient care.

Recommendations: It is recommended that Large scale follow up study may be conducted that will identify factors causing stress in nursing group. Government should incorporate stress reduction programs in national health policy. Reasonable salary packages should be given.

Continuous nursing educational (CNE) sessions should be conducted to enhance nursing skills. Overcome nurses-shortage by hiring more nurses.

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