

Perceived stress among nurses working in tertiary care hospital: A cross-sectional study

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ABSTRACT

Background and Objectives: Nursing profession involves spending a great deal of mental, emotional and physical energy on caring for others. This study was done to assess perceived stress among nurses working in tertiary care hospital. The objective of this study was to study perceived stress among nurses working in tertiary care hospital.

Methods: A cross sectional study was done on nursing staff of a government -medical college. 178 participants were included by systematic random sampling method. Perceived stress scale (PSS 10) questionnaire was used to assess stress scores. MS Excel sheet and SPSS were used for data entering and statistical analysis.

Results: The mean PSS score was 20.01 (\pm 4.45 SD). 12 (6.7%) were under low stress, 152 (85.4%) were under moderate stress and 14 (7.9%) were under severe stress.

Conclusion: This study identified that doctors and nurses do face considerable amount of stress at workplace. Appropriate coping strategies must be adopted by them to cope up with this stress.

Keywords: Perceived stress, nurses, tertiary care hospital.

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INTRODUCTION

Stress in humans results from interactions between persons and their environment that are perceived as straining or exceeding their adaptive capacities or threatening their well-being [1]. Hospital workers often deal with life-threatening injuries and illnesses complicated by under staffing, tight work schedules, overwork, paper-work, malfunctioning medical equipment, dependent and demanding patients and patient deaths, all of which are significant contributors to stress. Nursing profession involves spending a great deal of mental, emotional and physical energy on caring for others. They are often caught between complex hierarchy of authority of doctors, matrons, families or caretakers and administrators. Unpredictable and distant postings, paperwork, interpersonal conflict within the health care team, dependant and demanding patients, patient deaths, reduced time for family are compounding the stress of a nurse working in a transferable job in a government setup [2].

High exposure to stressful events among medical personnel may manifest itself in several different outcomes including depression, anxiety, self-doubt, post-traumatic stress disorder, loss of sleep, impairing immune function, elevation of cardiovascular risk factors, burn out and disturbed relationships with family. Knowledge about presence of stress is therefore important, and if found, should be given attention for timely intervention [3]. Hence, this study was designed with an objective of assessing perceived stress and its sources among nurses.

METHODOLOGY

A cross sectional study was conducted in Dr. Shankarrao Chavan Government Medical College and Hospital, Nanded from April 2017 to June 2017. Registered nurses who had worked at least three months in various wards of the hospital were included in this study. Those who working on temporary basis or newly appointed, and those on leave or not available at the time of study were excluded. It was decided to include 50% of nursing staff working in this hospital in the study. The list of nursing staff was procured from the matron office and the participants were included by systematic random sampling. The interview was conducted in private room after obtaining informed consent. The assurance was given to every participant about confidentiality of data. The predesigned questionnaire was included sociodemographic factors such as age, gender, residence, religion, marital status, education and occupation of life partner etc.

The perceived stress was assessed using Perceived Stress Scale [4] the PSS – 10 had 10 questions/statements and the respondents were asked to indicate their level of agreement with a given statement by way of an ordinal scale (0 = Never; 1 = Almost; 2 = Sometimes; 3 = Fairly Often 4 = Very Often). The level of stress were arbitrarily divided as: low perceived stress: 0-13, moderate perceived stress: 14-26 and high perceived stress: 27-40. The advantage of PSS is that it can be applied to a wide range of settings, to different subject types and includes items measuring reactions to stressful situations as well as measures of stress. The information thus collected was entered on a Microsoft Excel spread sheet. Statistical analysis of the data was done using SPSS trial version 20. Chi square test was used to compare proportions.

RESULTS

Table No. 1: Distribution of study subjects according to sociodemographic factors

VARIABLE	LOW	MODERATE	SEVERE	Total	X ² , p, df
Age (Years)					
20-30	8 (7.1%)	93 (83.0%)	11(9.8%)	112 (100%)	X ² = 2.772 p = 0.837 df= 6
31-40	2 (4.5%)	40 (90.9%)	2 (4.5%)	44 (100%)	
41-50	1(7.1%)	12 (85.7%)	1 (7.1%)	14 (100%)	
>50	1 (12.5%)	7 (87.5%)	0 (0%)	8 (100%)	
Sex					
Male	3 (7.3%)	33(80.5%)	5 (12.2%)	41 (100%)	X ² = 1.446 p = 0.485 df= 2
Female	9 (6.6)	119 (86.9%)	9 (6.6%)	137 (100%)	
Residence					
Rural	4 (6.2%)	56 (86.2%)	5 (7.7%)	65 (100%)	X ² = 0.063 p = 0.969 df= 2
Urban	8 (7.1%)	96 (85.0%)	9 (8.0%)	113 (100%)	
Religion					
Buddha	0 (0%)	20 (87.0%)	3 (13.0%)	23 (100%)	X ² = 0.3834 p = 0.699 df= 6
Christian	2 (6.7%)	26 (86.7%)	2 (6.7%)	30 (100%)	
Hindu	9 (7.6%)	101 (85.6%)	8 (6.8%)	118 (100%)	
Muslim	1 (14.3%)	5 (71.4%)	1 (14.3%)	7 (100%)	
Marital status					
Married	8(6.8%)	102 (87.2%)	7 (6.0%)	117 (100%)	X ² = 2.227 p = 0.898 df= 6
Separated	0 (0.0%)	1 (100%)	0 (0.0%)	1 (100%)	
Unmarried	4 (6.8%)	48 (81.4%)	7 (11.9%)	59 (100%)	
Widow	0 (0.0%)	1 (100.0%)	0 (0.0%)	1 (100%)	
Family type					
Joint	9 (6.6%)	115 (84.6%)	12 (8.8%)	136 (100%)	X ² = 0.733 p = 0.693 df= 2
Nuclear	3 (7.1%)	37 (88.1%)	2 (4.8%)	42 (100%)	
Experience (Years)					
<10	10 (7.1%)	117 (83.6%)	13 (9.3%)	140 (100%)	X ² = 9.687 p = 0.138 df= 6
11-20	1 (4.3%)	22 (95.7%)	0 (0%)	23 (100%)	
21-30	0 (0%)	12 (92.3%)	1 (7.7%)	13 (100%)	
>30	1 (50.0%)	1 (50.0%)	0 (0.0%)	2 (100%)	
Family size					
2-4 Members	5 (5.9%)	74 (87.1%)	6 (7.1%)	85 (100%)	X ² = 1.327 p = 0.857 df= 4
5-7 Members	6 (7.0%)	73 (84.9%)	7 (8.1%)	86 (100%)	
8-10 Members	1 (14.3%)	5 (71.4%)	1 (14.3%)	7 (100%)	

Table No. 2: Distribution of study subjects according severity of perceived stress scale.

Question	Never	Almost never	Sometimes	Fairly often	Very often
In the last month, how often have you been upset because of something that happened unexpectedly?	16 (9.0%)	31 (17.4%)	60(33.7%)	58(32.6%)	13(7.3%)
In the last month, how often have you felt that you were unable to control the important things in your life?	17 (9.6%)	42(23.6%)	72(40.4%)	31(17.4%)	16(9.0%)
In the last month, how often have you felt nervous and stressed?	13(7.3%)	22(12.4%)	68(38.2%)	55(30.9%)	20(11.2%)
In the last month, how often have you felt confident about your ability to handle your personal problems?	25(14.0%)	47(26.4%)	61(34.3%)	33(18.5)	12(6.7%)
In the last month, how often have you felt that things were going your way?	25(14.0%)	38(21.3%)	64(36.0%)	37(20.8%)	14(7.9%)
In the last month, how often have you found that you could not cope with all the things that you had to do?	11(6.2%)	44(24.7%)	58(32.6%)	46(25.8%)	19(10.7%)
In the last month, how often have you been able to control irritations in your life?	24(13.5%)	52(29.2%)	63(35.4%)	25(14.0%)	14(7.9%)
In the last month, how often have you felt that you were on top of things?	37(20.8%)	47(26.4%)	62(34.8%)	21(11.8%)	11(6.2%)
In the last month, how often have you been angered because of things that happened that were outside of your control?	8(4.5%)	15(8.4%)	72(40.4%)	49(27.5%)	34(19.1%)
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	9(5.1%)	45(25.3%)	60(33.7%)	43(24.2%)	21(11.8%)

Of the 178 respondents, 12 (6.74%) were under low stress, 152 (85.39%) were under moderate stress and 14 (7.86%) were under severe stress. The mean PSS score was 20.01 (+ 4.45 SD)

Out of 178 participants, majority (112) were from age group 20-30 years and most of were females. In age group 20-30 years, majority (83.0%) were having moderate perceived stress. Females are more than male in study subjects. Among 137 females most of (86.9%) were having moderate perceived stress. 113 study subjects were living in urban area among them, 85.0% were having moderate perceived stress. Most of i.e. 118 were Hindu by religion; out of this 101 (85.6%) study subjects were having moderate perceived stress. While considering the marital status, most of (117) were married while only one was unmarried and 1 was widow, among 117 married study subjects 102 (87.2%) were having moderate perceived stress.

Majority of study subjects (136) were belongs to joint family, among these 115 (84.6%) were having moderate perceived stress. While considering the experience of work, most of (140) were having experience less than 10 years and among this 140 study subjects 117 (83.6%) were having moderate perceived stress (Table 1). Above all, no any sociodemographic factor comes statistically significant with stress. (Table 1). Responses given by subjects to Perceived stress scale are depicted in Table 2

DISCUSSION

The lives of healthcare professionals are often stressful. This study evaluated perceived stress among important group of health care professionals i.e. nurses. We chose the perceived stress scale (PSS-10) for evaluating stress, since this instrument has been documented for its reliability and validity [4-6].

Of the 178 respondents, 12 (6.74%) were under low stress, 152 (85.39%) were under moderate stress and 14 (7.86%) were under severe stress. The mean (\pm SD) PSS score among our study subjects was 20.01 (\pm 4.45 SD). Similar findings from study done in Kancheepuram, Tamil Nadu revealed mean perceived stress score among nursing staff was 17.16 (\pm 5.5 SD)². Another study done in thirty government hospitals of central India [7] found that the mean perceived stress score among nursing staff was 15.98 (\pm 6.22 SD). Study done in Karnataka have reported 60.38% nurses experienced lower stress, 38.46% had moderate stress while 1.15% had severe stress [8]. Another study on the other side, studies done in other countries have reported higher prevalence of stress among nurses. A Study in the United States among nurses found that the mean perceived stress was 25.5 (\pm 5.98 SD) [9]. This variation in the mean perceived stress score among nursing staff may be due to different work environment in different hospitals.

In the present study, majority of the participants were females. But, the difference in mean PSS scores between females and males was not statistically significant. In this study, nurses of age group 20-40 years and females were found to be at a higher risk of developing perceived stress. While a study among nurses in Sri Lanka revealed that high stress levels were significantly associated with 40-49 years age group [10]. However, in a study conducted at Delhi, there was no significant association found between occupational stress and selected demographic variable namely age and sex [11].

CONCLUSION

Nursing staff experiences a considerable amount of stress at their workplace due to various causes which leads to diminish in nursing care quality. Stress management activities such as yoga and meditation should be practiced and whenever needed specialist care should be provided. Tertiary care government hospitals have tremendous patient load. However, measures to decrease the workload by increasing the staff, better infrastructure, healthy work environment, reducing non-nursing activities and proper planning of duty schedules are required. Focus should be laid on stress management and coping strategies of nurses. Younger nurses are at a greater risk of developing stress. Hence, it is recommended that duties should be allocated such that there is a senior nurse to supervise and support a younger nurse to deal with such stressful situations.

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