Original Research Article

Anxiety and depression among nurses working in a tertiary care hospital in South India

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ABSTRACT

Background: Nursing binds human society with a bond of care and affection. Nurses are often the first healthcare professional that patients meet. Quality of care for patients is strongly linked to the performance of the nursing staff. If the mental health status of these nurses is troubled, then they will not be able to give their full attention to this demanding task. Nowadays, all efforts to fight health workers' illnesses are extremely important. This descriptive cross-sectional study will give us knowledge regarding the anxiety and depression status among nurses and give the nursing staff an opportunity to express their difficulty in professional life working in a tertiary care hospital in South India. Objective of this study was conducted to assess the prevalence of anxiety and depression among nurses working in a tertiary care hospital and to assess the correlation between various factors influencing the level of anxiety and depression among nurses.

Methods: Nurses were selected by simple random sampling till the sample size was obtained. A standardised questionnaire was handed over to the participants to collect relevant data and was assessed by Hospital Anxiety and Depression Score (HADS) and analysed using SPSS software.

Results: The participants consist of 120 nurses. The study gives frequencies of nurses with anxiety as 48(40%) and depression as 43(35.8%). There does not exist any significant correlation of anxiety and depression with various factors influencing them.

Conclusions: Anxiety and depression levels are increased in the younger and less experienced nurses. Thereafter, interventions can be planned to improve the quality of work-life of nurses that can improve patient care and in turn benefit the society.

Keywords: Anxiety, Depression, Hospital Anxiety and Depression Score, Nursing

INTRODUCTION

Nursing is an honourable profession, and nurses are the heart and soul of the healthcare system. Nursing is one of the most trusted caring professions within the health care sector focused on the care of individuals, families and communities so they may attain, maintain or recover optimal health and quality of life. Nurses are engaged in a moral endeavour, and thus confront many challenges in making the right decision and taking the right action. When nurses cannot do what they think is right, they experience moral distress that leaves a moral residue.[1] Nurses are a significant group of health-care personnel in any tertiary care hospital. They are often the first healthcare professional that patients meet. Quality of care for patients is strongly linked to the performance of the nursing staff. If the mental status of these nurses, who are the "symbol of service and humanity", are troubled, then they will not be able to give their full attention to this demanding task.[2] Nowadays, all efforts to fight health workers' illnesses are extremely important, and research on occupational stress, physical and mental health-related

problems and stress coping mechanisms have contributed to create a better understanding of these professionals' job situation and to make managers aware of the importance of elaborating preventive measures for the hospital work environment, considered highly stressful and loaded with factors that predispose to depression and anxiety among its workers.[3] Anxiety is a vague and unpleasant feeling of fear, apprehension, characterized by tension or discomfort deriving from the anticipation of danger, of something unknown or strange.[4,5] A study among nursing professionals revealed that situations in the work environment can provoke anxiety, particularly, among countless circumstances, the instability or aggravation of patients' health condition, lack of material, equipment and staff, relation with patients' relatives, as well as nursing care systemization difficulties and high-complexity procedures.[6] Depression, a fundamental variable in mental and occupational health research, is characterized by the slowing down of psychic processes, depressive and/or irritable mood, decreased energy, partial or total disability to feel joy or pleasure, disinterest, apathy, concentration difficulty, negative thinking, with a loss of planning capacity and altered judgments of truth.[3] Depression is a common mental disorder in some occupational and unemployment sectors. The projection is for depression to become the second most common cause of disability by 2020.[7] Women are especially at risk of becoming depressed.[8] Not many studies have been published on the prevalence of anxiety and depression and its related health problems among nurses in South India. Nurses are usually willing to talk about the problems in the profession, such as short staffing, poor ratios, and lack of managerial support. However, what they are not willing to talk about is depression and mental illness in their ranks. In conclusion, mindfulness practice holds promise for increasing individual and workplace resilience, however, meaningful research evidence from carefully constructed studies will be required to engage and motivate participation and organizational support.[9] This study will give us the prevalence of anxiety and depression status among nurses and give the nursing staff an opportunity to express their difficulty in professional life working in a tertiary care hospital in South India.

METHODS

A cross sectional study was carried out among the staff nurses in Amala Institute of Medical Sciences, Thrissur. The study was conducted during the period of June–September 2018. The study population comprised of staff nurses who have completed at least six months of service in the study site. Sample size was calculated taking prevalence of Depression as 43.1% from a previous study[3] done and it came out as 120.The Data collection instrument contained socio-demographic data (age, gender, marital status and education level), professional data and the Hospital Anxiety and Depression Scale (HADS). The scale was chosen because it was easy to understand, fast to apply, and included few items. The scale contains 14 multiple-

choice questions, with two sub-scales: anxiety (HADS-A) and depression (HADS-D), with seven items in each domain. Scores for each item ranged from zero to three, and the global score for each subscale when added up, separately for anxiety and depression, range from zero to 21. To interpret the scores of the two subscales, it is considered that, the higher the score, the greater the chance that the person has an anxiety and/or depression disorder.[1] The scores were interpreted as 0-7 being normal, 8-10 being borderline abnormal and 11-21 being abnormal. The list of nurses was obtained from the Nursing Superintendent's office. Nurses were selected by simple random sampling till a sample size of 120was obtained and the workplace and contact details of the selected nurses were collected from the Personnel Department of the hospital. Permissions were obtained from the concerned authorities and was seen to it that the data collection did not interfere with the daily routine of the staff. A standardized questionnaire was handed over to the participants. The questionnaire was used to collect relevant data from them and was assessed by Hospital Anxiety and Depression Scale (HADS). Data was entered in Microsoft excel sheet and analysed using SPSS software, version 23. Descriptive analyses were used for all variables, and the chi-square test to check for possible associations between anxiety and depression separately with socio demographic variables.

RESULTS

The study was done on a total of 120 nurses working in the same hospital. The study participants were all females. Ages ranged from 22 to 42 years, with a mean age of 27.05±3.94 years. Duration of work (in years) ranged from 1 to 10 years with a mean duration of 2.98±1.97.

Table 1: Age and work tenure of study population (N=120).

Age (in yrs)	Duration of work (in years)		Total
	<5	≥5	
20-25	50	0	50 (41%)
26-30	49	4	53 (44%)
31-35	7	5	12 (10%)
36-40	1	2	3 (2.5%)
41-45	1	1	2 (1.6%)
Total	108 (90%)	12 (10%)	120

In the study population the mean anxiety score was 6.78±3.57, and the mean depression score was 5.98±3.33. The above results were found, based on the scale criterion[4]that determines score eight as the cut-off point for HADS-Anxiety and HADS-Depression.

According to the results in Table 2, a lot of workers obtained scores above eight for anxiety as well as for depression.

Table 2: Distribution of professionals according to HADS-A and HADS-D subscales.

	Normal	Borderline abnormal	Abnormal	Total
Anxiety				
Frequency (%)	72 (60.0)	30 (25.0)	18 (15.0)	120 (100.0)
Depression				
Frequency (%)	77 (64.2)	37 (30.8)	6 (5.0)	120 (100.0)

Table 3: Pearson correlation test to assess correlation of anxiety and depression with age and duration of work.

	Pearson correlation coefficient	p value
Anxiety and Age	0.015	0.872
Anxiety and Duration of work	0.05	0.591
Depression and Age	0.058	0.521
Depression and Duration of work	0.041	0.651

Table 4: Association between age and anxiety and depression.

Age	Normal	Borderline abnormal	Abnormal	Total	p value
Anxiety					
20-25	31 (62%)	12 (24%)	7 (14%)	50	
26-30	30 (56.6%)	14 (26.4%)	9 (17%)	53	
31-35	9 (75%)	3 (25%)	0	12	0.9
36-40	1 (33.3%)	1 (33.3%)	1 (33.3%)	3	
41-45	1 (50%)	0	1 (50%)	2	
Total	72 (60%)	30 (25%)	18 (15%)	120	
Depression					
20-25	34 (68%)	13 (26%)	3 (6%)	50	
26-30	33 (62.2%)	17 (32%)	3 (5.6%)	53	
31-35	6 (50%)	6 (50%)	0	12	0.5
36-40	3 (100%)	0	0	3	
41-45	1 (50%)	1 (50%)	0	2	
Total	77 (64.2%)	37 (30.8%)	6 (5%)	120	

The Pearson correlation test was also done to determine whether there is a linear component of association between two continuous variables. According to the results, Pearson correlation coefficient value of 0.015 and 0.05 for age and duration of work respectively with anxiety indicates that there is a positive correlation of anxiety with age and duration of work. As for depression, Pearson correlation coefficient value for age is 0.058 and a value of 0.041 for duration of work which also indicates that there exist a positive correlation between depression and the two variables.

The association of categorical variables like religion, marital status, education, age and work tenure with anxiety and depression was found by Chi-square test.

Table 4 shows the association between age and anxiety and depression. Anxiety is seen to be more in the younger age group and tends to decrease on increasing age. Prevalence of depression is less compared to anxiety though depression is also seen in the younger.

This implies that prevalence of anxiety and depression is less in the aged and experienced staff. The values are not statistically significant though. The association with variables like religion, marital status, educational status and work tenure were found to be statistically insignificant.

DISCUSSION

The study participants were fully females reaffirming the fact that nursing is a female profession, as demonstrated in other recent studies.[10-14] This study gives frequencies of nurses with anxiety as 48(40%) and depression as 43(35.8%) out of a total of 120 participants.

The overall average scores for anxiety as 6.78 and for depression as 5.98, in the interval of 0 to 21. As for the results found in anxiety and depression assessments in another study, according to the cut-off point the scale authors suggested, frequencies of workers with anxiety

66(31.3%) and depression 51(24.2%) levels, out of 120 participants, are a source of concern.[3] In this study, the average score for anxiety was 6.3 and 5.2 for depression in the same interval. A systematic review of Brazilian studies found similar results, with mean prevalence levels of depression among nursing workers ranging between 28.78% and 30.64%.[15] It was also similar to another study conducted in Greece which had prevalence of anxiety as 53(48.2%) and depression as 58(52.7%).[16] In a study.[17] conducted among the nurses in Hong Kong, the prevalence of depression and anxiety came in at 35.8% and 37.3% respectively. Another study had results showing a definite pattern of risk progression for the six factors examined for each risk profile.[18] In this study there were five variables selected to check the association between them and anxiety and depression. There wasn't any statistically significant value showing a positive correlation between variables like age, duration of work in this hospital, religion or marital status, with anxiety and depression. Though qualification-wise, Bachelor of Science (BSc) nurses who were the majority were found to have higher anxiety levels, but the depression levels were lower, But these were also not significant statistically. Some authors have also described that anxiety and depression is more evident in younger than in older groups.[19] which could disclose more cases of this kind of disorder among workers in this study, as the sample predominantly contained young adults.

In this study, an increase in anxiety and depression levels was seen in nurses who were younger, worked more and qualification-wise, in the BSC nurses. An older research, which specifically measures the level of anxiety and coping among nurses, concluded that, of 500 nurses participants in their study, paediatric nurses reported the highest level of anxiety.[20] Others find intensive care unit (ICU) nurses more stressed than those working in other specialties.[21] But study by Denise Rodrigues et al shows increased anxiety and depression levels in nurses who were younger, worked full-time and without a postgraduate qualification. Present study showed higher incidence of anxiety (47%) among the unmarried and depression (38%) among the married nurses. In another study conducted in Greece found an increased anxiety (63.3%) and depression (66.7%) among the unmarried.[12] Another study showed, divorced/widowed/separated nurses were 1.7 and 1.8 times more likely than singles to report depressive and anxiety symptoms respectively.[17]

CONCLUSION

In this descriptive cross-sectional study, the percentage of anxiety and depression scores were 40% and 35.8%, respectively from a tertiary care hospital in Thrissur, Kerala, South India. There was an increase in the anxiety levels seen in BSC nurses, who were the majority, as compared to other qualifications, though it was not significant. Anxiety and depression levels are seen to be increased in the younger and less experienced nurses. Statistically significant data was not found in any association checked with other variables too. Stress and anxiety relieving sessions maybe held for the nurses, especially for the beginners. Induction training for nurses is also appreciable. They may be allowed break during working hours that help reduce stress levels among nurses. Interventions can be planned to improve the quality of work-life of nurses that can improve patient care and in turn benefit the society.

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