ANXIETY AND DEPRESSION IN NURSES WORKING IN GOVERNMENT TERTIARY CARE TEACHING HOSPITALS OF PESHAWAR KHYBER PAKHTUNKHWA AND THEIR RELATIONSHIP WITH JOB STRESS

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ABSTRACT

Objectives: To estimate the prevalence and intensity of anxiety and depression and its relationship with job stress among the nursing staff.

Methodology: This cross sectional analytical descriptive study was conducted in three teaching hospitals of Peshawar from 1st August 2006 to 30th November 2006. Convenient sampling was used. The sample consisted of 700 nurses. Sociodemographic details were collected through a proforma. Self rating translated Job Stress Questionnaire was administered followed by self rating Urdu version of AKUAD scale for estimation of job stress and intensity of anxiety and depression. SPSS version 16 was used for statistics.

Results: The prevalence of anxiety and depression was 100% with mean score of 41±10.70 and job stress 38.96±18.76. The prevelance of mild, moderate,severe and very severe degrees of anxiety and depression was 55.6%,39.3%,4.6% and 0.6% respectively. There was no significant correlation between total scores on (AKUADS) and job stress on JSQ (0.836 P⩾0.5). Five items of job stress: Inability to satisfy patients (0.022, P ⩽ 0.5), health hazards (o.oo3, P ⩽ o.5), dealing violent patients (0.001,P⩽ 0.5),dealing abusive patients(0.043⩽ 0.5) and shift work(0.027, P ⩽0.05) showed statistically negative correlation with severity of anxiety and depression.

Conclusion: All nurses in our study had anxiety and depression, majority were in mild to moderate intensity range. Although no significant relationship was observed between anxiety and depression and job stress as a whole, yet significant negative relationship with some aspects of job stress was found. The findings reflected a public health issue.

Keywords: Anxiety and depression, Job stress, Nurses, Khyber Pakhtunkhwa.

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INTRODUCTION

Anxiety and depression are common psychiatric disorders throughout the world.Both conditions have known association with stressful environment. Prolonged stressful conditions are well known to be associated with depression by themselves as well as augment the impact of acute stressful events[1].Distress is highly prevalent among health care staff. Both stresses at work and outside contribute to the anxiety and depression experienced by health care staff world wide[2]. Nurses are working in extremely difficult circumstances which is full of psychosocial stress[3,4]. Therefore, Florence Nightingale has rightly defined nurse as " a foot soldier on the frontline in the battle against disease"[5].The higher job stress in nurses is accounted for their low job satisfaction. This directly reflects the poor quality of nursing care provided to the patients in public

as well as private sectors[6]. In Pakistan the prevalence of anxiety and depression is reported to be higher than that reported from developing countries[7,8]. Recent review of literature from Pakistan has revealed that every third person in Pakistan is suffering from anxiety and depression. Females in Pakistan have been shown to have higher prevalence of anxiety and depression[9]. Literature from developing countries has revealed that nursing profession in this part of the world is not considered respectable and is joined by low social class[10].In this scenario, female nurses in Pakistan seem to have more psychological impact in the form of anxiety and depression. Although there is some related work in local literature yet this particular subject has inadequately been studied in our country[4,11-13]. Therefore, the present study was conducted with the objectives to estimate the prevalence of anxiety and depression and their intensity in the nursing population of government tertiary care teaching hospitals of Peshawar, Khyber Pakhtunkhwa as well as job stress perceived by these nurses and to find out correlation between job stress and anxiety and depression in these nurses.

METHODOLOGY

The study was carried out in three tertiary care teaching hospitals i.e. Lady Reading (LRH), Khyber Teaching Hospital (KTH) and Hayatabad Medical Complex (HMC) Peshawar. These hospitals have 1700, 1500 and 750 beds respectively. All three hospitals are providing tertiary care to the patients from all over the Khyber Pakhtunkhwa province as well as the tribal belt and the adjacent areas of Afghanistan and are recognized for undergraduate and post graduate training. Our study was cross sectional, descriptive analytical. The study was completed over a period of three months from August to November 2006. The sample size consisted of 700 nurses selected

by non probability convenient sampling. The included nurses were those who had worked at least for one year in any of the three hospitals falling in the age range of 15-45 years. Those were excluded who either refused to give informed consent or were on long leave during the study.

Informed consent was obtained from the nurses who met inclusion and exclusion criteria. The sociodemographic details were recorded with the help of anonymous proforma, based on sociodemographic scale for Pakistan. Job Stress Questionnaire for nurses was administered after translating and back translating into Urdu with the help of bilingual persons, to estimate the job stress perceived by the nurses. To know the reliability of the questionnaire a pilot study was conducted on few nurses. Moreover, this questionnaire was modified to some extent by reducing the number of questions from 58 to 25 so as to eliminate the items which were not too much pertinent to our culture and environment of workplace. All the nurses were screened for anxiety and depression with the help of Aga Khan University Anxiety and Depression rating Scale (AKUADS) with cut off point of 19[14,15]. The data was labeled and analyzed with the help of SPSS version 16. We calculated frequencies, mean and standard deviations. Correlation coefficient was calculated at P value less than 0.05.

RESULTS

Out of 700 nurses 233(33%) from LRH, 286(41%) from KTH and 181(26%) were from HMC. Although the study was aimed at to include both genders yet all the nurses found according to methodology were females. Mean age of the sample was 22±5.50 years. Distribution of these nurses according to their nursing status showed that 369(53%) were staff nurses and 331(47%) were nursing students. Moreover, among the 700 nurses 523(74.7 %) were single, 174(24.9%)

Table 1: Scores on clinical variables (n=700)

S. No.	Clinical Variables	Mean value	Standard deviation
1.	Total score on AKUAD S	41	±10.70
2.	Total sore on JSQ	38.96	±18.78

Maximum score on Agha Khan University Anxiety and Depression Scale (AKUADS)=100
Maximum score on Job Stress Questionnaire (JSQ)=75

Table 2: Distribution of subjects in different groups based on score range on AKUADS (n=700)

S. No.	Groups	Frequency	Percentage
1.	Score range 20-40 (Mild)	389	55.6
2.	Score range 41-60 (Moderate)	275	39.3
3.	Score range 61-80 (Severe)	32	4.6
4.	Score range 81-100 (Very Severe)	4	.6

Table 3: Significant correlations in AKUADS and JSQ.

S. No.	Variables for correlation	Correlation score	Coefficient
1	AKUADS &total score on JSQ	-.008	.836, P >.05
2	AKUADS & score on 5th Question (Being asked a question by a patient for which I do not have a satisfactory answer) of JSQ	.086	.022, P<.05
3	AKUADS & score on 17th Question (Being exposed to health and safety hazards) of JSQ	-.112	.003, P<.05
4	AKUADS & score on 18th Question (Having to deal with violent patients) of JSQ	-.121	.001, P<.05
5	AKUADS & score on 19th Question (Having to deal with abusive patients) of JSQ	-.007	.043 P<.05
6	AKUADS & score on 23rd Question (Having to work through breaks) of JSQ	-.084	.027 P<.05

AKUADS=Aga Khan University Anxiety & Depression Scale
JSQ= Job Stress Questionnaire for nurses

married, 1 (0.1%) divorced and 2(0.3%) were widows. 100 % subjects of the 700 sample scored above the cut-off point on AKUAD scale.

The correlation was first calculated between the total score on JSQ and AKUADS, which showed no correlation at all, as shown by Table 3 below. When correlation between total score and scores on individual 25 items of Job Stress Questionnaire was calculated, only five items had significant negative correlation with job stress as given in Table 3.

DISCUSSION

The sociodemographic profile of the study showed that the subjects represented three well established teaching hospitals of the district Peshawar which is capital of the province KPK. Moreover, the study population consisted of approximately equal proportions of staff and student nurses. According to the results of the study, more than two third of the subjects were single, most probably because of their recruitment at an earlier age. In the present study, we mainly focused on anxiety and depression and job stress in these nurses. Our results indicated 100% prevalence of anxiety and depression in nurses. It seems an important finding for future research as well as public interest. Somewhat similar small study was recently conducted in Abbasi shaheed hospital of Karachi. It reported that out of 70 nurses 81.4% had suffered from depression[11]. A study with a smaller sample size, carried out in a hospital of the city of Shiraz in Iran, has also shown that 99.4% of those nurses had depression[16].

The first item of Table 1 of the results gives mean value of intensity of anxiety and depression where as Table 2 shows frequencies of different degrees of that intensity. The mean value of the intensity of anxiety and depression was 41 which falls in moderate intensity range of the results .However, according to the table no.2, 95% nurses had mild to moderate degrees of anxiety and depression. A study conducted in 2011 in Karachi showed that the frequencies of mild, moderate and severe degrees of depression were 30%,42% and 8.6% respectively[11] A similar study conducted in 2007 in Iran reported that out of one hundred nurses 73%,21% and 5.4% had mild, moderate and severe degrees of depression respectively[16]. The results of both these studies broadly support our finding.

Moreover, in 2008 another study with a huge sample size and a broader theme was carried out in Iran using General Health Questionnaire (GHQ). Which showed that 45.5% of those nurses had psychiatric morbidity which was although not different from that of referent general population, yet anxiety and somatic symptoms of anxiety and depression were more prevalent, 43.2% and 34.5% respectively. However, we can not compare our results with this study for three main reasons. First, to know the prevalence of anxiety and depression was not the main objective of this study. Second, population of the study was mixture of male and female nurses. Third, the instrument used was a general one (GHQ) which is not specific for anxiety and depression[17].

The item no. 2 of the Table 1 also gives the mean of total score obtained by these nurses

on job stress questionnaire, which is 38.96± that means a score more than half of the total maximum i-e a moderate level of job stress. It seems consistent with the evidence of job stress in local literature, literature from our neighborhood and literature from other countries[4,6,12,18-21]. In 2004, a study conducted in two private hospitals of Rawalpindi and Islamabad reported that almost all nurses of the study had severe or moderate work related stress[6,12]. Moreover, a similar finding was reported by Asad Nizami and his colleagues in 2006 who carried out a study on nurses in Rawalpindi General Hospital of Punjab[4]. Similarly a study from India in 2009,conducted by Maharashtra Medical Research Society in a hospital of Pune, concluded that most of the nurses working there had moderate job stress[20]. A recently conducted study in a teaching hospital of Ireland, further elaborated on job stress, showing the relative difference in amount of perceived stress by nurses working in different units of the hospital. According to this study, nurses working in medical, accident & emergency and pediatric units had significantly higher job stress[21]. Our study has given interesting findings about the relationship between job stress and anxiety and depression. Table 3 showed no significant positive or negative correlation between total score on job stress scale and AKUAD scale, reflecting no relationship as a whole between job stress and anxiety and depression. As given in the same table, five items of the job stress scale have statistically significant negative correlation with total score on AKUAD scale. These findings seem paradoxical to the general view .As we do not have comparable study in local as well as in the literature of neighbouring countries but literature does show in one way or the other that some aspects of the job stress have adverse impact on the mental health of nurses[22]. The controversy in our last findings can be explained as:

1)   In our set up, probably it is not the job stress which determines anxiety and depression in nurses but something else might be contributing like personality and sociodemographic factors etc as evident in literature[22].

2)   Some aspects of the job stress possibly, because of sustained exposure, may be contributing to the resilience against anxiety and depression as the five items of job stress questionnaire in our study.

CONCLUSION

Hundred percent prevalence of anxiety and depression in the nursing population of the teaching hospitals of Peshawar is alarming for public health strategists. The findings that job stress as a whole had no significant relationship with the anxiety and depression in these nurses and some items of job stress had statistically negative relationship, invite researchers to discover factors other than job stress contributing to anxiety and depression in nurses of these hospitals. Moreover, in the present study number of items was reduced from 58 to 25 from job stress questionnaire, incorporating those deleted items may produce difference in future research on the subject.

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None Declared

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