
**Prevalence of Mental Health Problems among Female Nurses in Public Sector Hospitals
Faisalabad: An Exploratory Study**Faiza Anwar¹, Riffat Sadiq², Saira Khan³**Abstract**

The objective of the present study was to explore the prevalence and severity of mental health problems (i.e., Depression, Anxiety, Stress, Anger and Hostility) among female nurses working in public sector hospitals situated in Faisalabad. In this regard, the sample of 306 participants (female nurses) was selected from public sector hospitals situated in Faisalabad. Personal Information Sheet, Depression, Anxiety, Stress Scale-21 (DASS-21), and the subscales of Anger and Hostility (AQ) were used for the data collection. Data analysis was done through Statistical Package for Social Sciences (SPSS, v22). Of the 306 participants, about 73.8% nurses reported significant depression, 80.7% nurses experienced significant anxiety, 84.9% nurses reported significant stress, 83.3% participants reported significant anger, while 81.3% reported significant hostility. Approximately, 64.15% nurses experienced moderate depression, 33.19% reported severe level of anxiety and 61.92% nurses reported moderate level of stress. Female nurses of public sector hospitals suffered from significant mental health problems (i.e., depression, anxiety, stress, anger and hostility) which are deleterious not only for the professional growth of nurses but for the patient's welfare as well. Addressing mental health status of nurses will enable them to cope up with personal and work related issues.

Keyword: Anger, Anxiety, Depression, Hostility, Mental health, Nurses, Stress

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Introduction

The profession of nursing is foremost significant profession in the health sector. Nurses assume full time caregiving responsibilities with sufficient devotion and

zeal. Nursing involves handling and caring of variety of patients suffering from mild to chronic physical/psychological ailment. As a result, nursing, in some setting, is allied with stressful conditions.

With this frequent job stress, nurses develop significant psychological and physical problems. Previous studies have evinced nurses to be experiencing significant depression, anxiety and stress (Cheung & Yip, 2015; Maharaj et al., 2019), somatic symptoms, depression, social dysfunction and anxiety as well (Swapnil et al., 2016; Tajver et al., 2015). The ratio of psychological illnesses was higher among nurses engaged with dialysis, eye, medical, gynecological wards and emergency as well (Shakya et al., 2012).

A cross-sectional survey indicated the disorder of anxiety and depression among nurses (Perry et al., 2015). Nurses engaged

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with Tertiary Care Hospitals in Pakistan experienced severe burnout and poor quality of life (Naz et al., 2016). Nurses of same hospital also reported mild to severe level of depression as well (Ali et al., 2018). Researchers proved moderate to severe level of everyday stress among nurses irrespective of their demographics which further impaired their personal and professional responsibilities (Badil et al., 2017). Age, gender, level of hospital and job tenure are likely to make ground for significant depression, anxiety and insomnia among nurses (Huang et al., 2018).

Mental health of nurses indeed is influential for patients besides their own professional performance. Quality of patient care depends on how the professional own' health is. Stressful work and working condition negatively influence patient's safety (Berland et al., 2008). It is an eminent fact that nurses cannot possibly attend the needs of patients, if their own mental health is unstable. Psychological problems among nurses may result in errors at work also, obviously deleterious for one's life. Previous studies show that stress lead to medical errors, non-compliance and negligence on the part of nurses that may further put patient's life at risk (Babu et al., 2015). To be boisterous at work, nurses need to be mentally stable. Furthermore, nurses who strive to cope with environmental and work related problems may prevent themselves from developing mental health issues. In the light of existing literature, the present study has specific objectives as mentioned below:

1. To examine the presence of mental health problems among female nurses of public sector hospitals.
2. To determine the prevalence and severity of the mental health problems (i.e., Depression, Anxiety, Stress, Anger and Hostility) among nurses of public sector hospitals in Faisalabad.

Method

Having approval from the Ethical Review Committee at Government College Women University, Faisalabad, this exploratory study was done on the nurses of public sector hospitals. For that purpose, a list of female nurses (sampling frame) was obtained from each hospital to determine the population size and that was 1295. Following formula was computed to determine the present sample size (Yamane, 1967):

$$\begin{aligned}
 n &= N / 1 + N (e)^2 \\
 n &= 1295 / 1 + 1295 (0.05)^2 \\
 n &= \frac{1295}{1 + 1295 * 0.0025} \\
 n &= \frac{1295}{4.23} \\
 n &= 306.14
 \end{aligned}$$

In that way, at least 306 female nurses were randomly selected from five different public sector hospitals working in Faisalabad. Afterwards, permission was taken from the administration of all hospitals respectively to collect the data from nurses. Then, in individual meeting, consent was also taken from the female nurses verbally and as well as in written form. First, self-constructed semi-structured brief interview form was administered on participants that ruled out basic information such as: age, educational level, marital status, no. of family members/children, family system, head of the family, residential area, duration of job, duty shift, and duty hours.

Other instruments included Urdu Versions of DASS-21 that comprised of 21 items and three subscales (Depression, Anxiety and Stress). All subscales have 7 items respectively which are scored on 4-points likert scale ranged from [Did not apply to me at all =0, applied to me to some degree or for some of the time=1, applied to me to a considerable degree or for a good part of time=2, applied to me very much or most of

time=4]. The reliability of the Urdu version of Depression subscale is ($\alpha = .0.84$), of Anxiety is ($\alpha = .0.86$), of Stress is ($\alpha = .0.83$) and of full scale is (0.93) as reported by (Aslam & Kamal, 2017).

Urdu Versions of Anger (7-items) and Hostility (8-items), subscales of Aggression Questionnaire, were used. Items of both subscales are scored on five point likert scale [Extremely uncharacteristic of me =1, somewhat uncharacteristic of me=2, neither

uncharacteristic nor characteristic of me=3, somewhat characteristic of me=4, extremely characteristic of me=5]. Reliability of Urdu version of Anger is ($\alpha = .88$), whereas of Hostility is $\alpha = .75$ (Shafique & Sadiq, 2019). Every participant was given sufficient time to answer each questionnaire selected for the present research. After completing data collection procedure, scoring was done in order to statistically analyze the data using SPSS Version 22.0.

Results

Table 1

Summary of Demographic Characteristics of the Participants (N=306)

Characteristics	Frequencies	Percentages
Age Range	<i>f</i>	%
21-30	279	91.18, ($M= 24.94$; $SD= 3.67716$)
31-40	27	8.82
Education		
BS Nursing	237	77.45
General Nursing	69	22.55
Marital Status		
Single	219	71.57
Married	87	28.43
Family System		
Nuclear	180	58.82
Joint	126	41.18
Socio-economic Status		
Lower	19	6.20
Middle	287	93.7
Duration of Job		
1-10	222	72.55
11-20	84	27.45
Duty Hours		
6 hours	238	77.78
Above 6 hours	68	22.22
Duty Shift		
Morning	127	41.50
Evening	111	36.27
Monthly Income		
25-35	43	14.05
36-45	57	18.6
46-55	139	45.4
56-65	67	21.8

Descriptive statistics (frequencies/percentages) was computed to present demographic information obtained from the participants of the present study. Results (Table-1) have revealed that the majority of participants (91.17%) were falling in the age range of 21 to 30 years with mean age ($M=24.94$; $SD=3.67716$). About 77.45% had the degree of BS nursing. Most of the nurses (71.56%) were single, with middle class

family (93.79%) and were living in nuclear family system (58.82%).

Duration of job of most of the nurses (72.54%) was in the range of 1 to 10 years. About 77.77% spent at least six hours at duty or work, while 41.50% were paying duty in the morning shift at the time of data collection. Majority (45.42%) nurses were being paid 46 to 55 thousands per month for the services.

Table 2

Prevalence of Mental Health Problems in Nurses (N=306)

Mental Health Problems	Nurses			
	Yes		No	
	<i>f</i>	%	<i>f</i>	%
Depression	226	73.8	80	26.1
Anxiety	247	80.7	59	19.2
Stress	260	84.9	46	15.03
Anger	255	83.3	51	16.6
Hostility	249	81.3	57	18.6

Further analysis was done pertaining to the mental health problems experienced by the participants of the present study. Results (Table-2) have depicted that among 306 participants; about 73.8% nurses reported significant depression, whereas 26.1% reported normal depression. Approximately, 80.7% nurses experienced significant

anxiety, while 19.2% reported normal anxiety. About 84.9% nurses reported significant stress and 15.03% reported normal stress in their life. Amidst all, about 83.3% participants reported significant anger, while 16.6% reported normal anger. About 81.3% reported significant hostility and 18.6% reported normal hostility.

Table 3*Severity of Depression, Anxiety and Stress in Nurses (N=306)*

Mental Health Problems	f	%
Depression		
Mild	51	22.5
Moderate	145	64.1
Severe	26	11.5
Extremely Severe	4	1.76
Anxiety		
Mild	31	12.5
Moderate	73	29.5
Severe	82	33.1
Extremely Severe	61	24.6
Stress		
Mild	161	61.9
Moderate	89	34.2
Severe	8	3.07
Extremely Severe	2	0.76

Level of depression, anxiety and stress was also calculated. It is shown by the results (Table-3) that majority nurses (64.15%) experienced moderate depression, 22.56% experienced mild depression, 11.5% experienced severe depression and 1.76% experienced extremely severe depression. Regarding anxiety, about 33.19% reported severe level of anxiety, 29.55% reported

moderate anxiety, 24.69% reported extremely severe anxiety, while 12.55% reported mild level of anxiety. Approximately 61.92% nurses reported moderate level of stress, 34.23% reported mild stress, 3.07% reported severe stress and 0.76% reported extremely severe stress in life.

Discussions

The present study addressed the mental health status of female nurses engaged with public sector hospitals in Faisalabad. The obtained findings indicated the significant proportion of mental health problems among participants (Table-2). Further analysis revealed that majority of the nurses experienced moderate level of depression (Table-3). It is supported by a previous study that documented registered nurses experiencing depression as twice in comparison to other professionals (Brandford & Reed, 2016). Various factors including job demands/characteristics and working condition (Gelsema et al., 2005), duty shifts

(Khodadadi et al., 2016) and middle income groups (Gong et al., 2014) accounted for depressive symptomatology in nurses. Job requirements along with personal or environmental problems might become the source of depression among nurses in the present study.

In the present study, majority of the nurses reported severe anxiety (Table-3). A previous study also demonstrated the significant anxiety in nurses of tertiary care hospitals in South India (Shajan & Nisha, 2019). Nurses, of the present study, might remained worried owing to their current life circumstances, which seemed to them as uncontrollable. When one does not feel capable enough to

control or handle painful stimuli, he or she becomes anxious. Uncontrollable feelings regarding environmental issues and future social and economic concerns might cultivate anxiousness among nurses of the present study.

Most of the nurses also experienced moderate level of stress (Table- 3). The present research findings are also supported by previous researches that revealed medium level of stress in nurses (Najimi et al., 2012; Kshetrimayum et al., 2019). Role of job dissatisfaction (Maharaj et al., 2019), pollution, time pressure and long hours are evident in determining stress among nurses (Kane, 2009). In hospital setting, nurses are exposed to distinct stimulus which requires timely management. Simultaneous handling of multiple tasks might propagate the stress level among nurses in the present study.

Nurses of the present study also reported significant anger (Table-2). It is further supported by previous research that pointed out three different kinds of anger expression among nurses in Korea (Han et al., 2015). Probably, nurses of the present study got frustrated owing to personal and work related problems (i.e., insufficient pay, duty shifts and patient's demand or handling) that provoked more anger in them.

Significant hostility was also noted among female nurses of the present study (Table-2). A previous study elaborated the nurse-nurse hostility within clinical setting (Hutchinson & Jackson, 2013). Perhaps, nurses might not cope well with negative experiences in living and working environment, as a result, they harbored negative feelings and emotions leading to hostility among them.

Conclusion

Female nurses of public sector hospitals experience significant depression, anxiety, stress, anger and hostility which may impede their professional growth. Owing to various mental health problems, they are unable to handle patients effectively. Adequate mental

health status of nurses may enable them to manage personal and as well as work related issues. It can also strengthen the nurse-patient relationships in health care setting.

Limitations and Recommendations

Some significant limitations of the present study were noted. First, the study explored the prevalence of mental health problems in the absence of causing factors. Role of demographics was not estimated in the connection of mental health problem at all. Only female nurses were focused ignoring male nurses completely. Mental health of male nurses is equally important to be addressed.

Hence, in the light of these limitations, all future researchers are recommended to examine the reasons of developing mental health problems among both male and female nurses in Pakistan. In this regard, mental health of nurses working in public and private sector hospitals can be compared. More details pertaining to the mental health problems among nurses will help in implementing preventive measures. Stability of mental health prevents medical errors at work, ensure quality of services for patients and as well as utilization of positive coping and skills on the part of nurses both at work and home.

Contribution of Authors

Faiza Anwar: Conceptualization, Methodology, Investigation, Data Curation
Riffat Sadiq: Supervision, Methodology, Writing -Original Draft, Writing - Review & Editing

Saira Khan: Formal Analysis, Writing-Original Draft

Conflict of Interest

The authors declared no conflict of interest.

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