AN EMPIRICAL STUDY ON STRESS, ANXIETY, AND DEPRESSION AMONG NURSES IN A TERTIARY CARE HOSPITAL IN LAHORE, PAKISTAN

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Abstract

Background: *Nurses play a crucial role in the healthcare system, serving as an essential part of the medical workforce and being entrusted with the responsibility of delivering high-quality patient care.*

Objective: *To empirically assess the prevalence of stress, anxiety, and depression among nurses working in a tertiary care hospital in Lahore.*

Methodology: *A cross-sectional study was carried out at Lady Willingdon Hospital, Lahore, between November 2023 and December 2023. Data were collected using the self-administered Depression, Anxiety, and Stress Scale (DASS-21). Statistical analysis was performed using SPSS version 24.0.*

Results: *The findings revealed that 34.66% of nurses experienced moderate depression, while 45 nurses (30%) reported severe depression. Regarding anxiety levels, 75 nurses (50%) had mild anxiety, and 40 nurses (26.66%) experienced moderate anxiety.*

Conclusion: *Failure to address these mental health concerns may adversely impact the performance of nursing staff, ultimately compromising the quality of patient care.*

INTRODUCTION

In healthcare settings, nurses are regarded as a vital component of the medical workforce, entrusted with delivering high-quality patient care. Their professional duties often place them in challenging and high-pressure situations, particularly within hospital environments (Maharaj, Lees, & Lal, 2018). Stress among nurses can manifest in both psychological and physical symptoms, frequently contributing to anxiety and depression. It may also lead to maladaptive coping behaviors, such as substance abuse, alcohol consumption, and eating disorders. Beyond creating physical and psychological strain, stress can significantly affect emotional well-being and overall mental health.

Evidence suggests that hospital nurses are more susceptible to stress, anxiety, and depression compared to the general population (Gao et al., 2012). Globally, between 40% and 90% of nurses report experiencing stress, most often at moderate to high levels. For instance, prevalence rates range from 35% to 41% in the United States and from 11% to 80% in Iran (Subih et al., 2011). Furthermore, studies have documented high levels of anxiety among

nurses—32–43% in China, 40–46% in Iran, and 44–66% in Brazil (Kibria, 2018).

Considering the global burden of psychological disorders among nurses, the scarcity of research on nurses' mental well-being in Pakistan, the acute nursing workforce shortage, and the challenging working conditions in the country, this study was undertaken to examine the prevalence and severity of stress, anxiety, and depression among nurses employed at Lady Willingdon Tertiary Care Hospital in Lahore.

Literature Review

Research indicates that being a woman can, in certain circumstances, increase the risk of developing stress, anxiety, and depression (Welsh, 2009). Among nurses, these psychological disorders are often attributed to multiple contributing factors, including limited resources, high expectations and demands, heavy workloads, extended working hours, and workplace conflicts (Zandi et al., 2011).

Recent epidemiological data reveal that nurses experience depression at twice the rate of the general population—18% compared to 9%—highlighting that stress, anxiety, and depression are prevalent within the nursing profession (WHO, 2019). These mental health challenges not only affect nurses' social relationships and physical well-being but also have a profound impact on the quality of care they provide to patients (Khan & Khan, 2017).

Depression, in particular, can hinder a nurse's ability to perform optimally in the workplace. Given that patients and their families heavily depend on medical professionals—especially nurses—it is essential for nurses to prioritize their own health and well-being to ensure the delivery of high-quality care (Cheung & Yip, 2015).

Materials and Methods

This cross-sectional study was conducted at Lady Willingdon Hospital, Lahore, from November 2023 to December 2023, following approval from the Institutional Review Board (IRB). The sample size of 150 nurses was determined using the WHO sample size calculator.

Inclusion criteria comprised all nurses, irrespective of age or gender, who were willing to participate.

Exclusion criteria included nurses with serious medical conditions such as HIV, diabetes mellitus, or hypertension, as well as pregnant nurses. Written informed consent was obtained from all participants. Data were collected using a pre-designed proforma and the self-administered Depression, Anxiety, and Stress Scale-21 (DASS-21). All eligible nurses received the questionnaire, which they completed independently. The collected data were entered and analyzed using SPSS version 24.0. Qualitative variables were presented as frequencies and percentages, while quantitative variables were expressed as mean ± standard deviation (SD).

Results

Table 1. Distribution of patients on gender basis

Gender	Number of Nurses	Percentage
Male	45	30%
Female	105	70%

Table 1 presents the gender distribution of nurses included in the study. Out of the total 150 participants, 45 nurses (30%) were male, while the majority, 105 nurses (70%), were female. This indicates a higher representation of female nurses in the study population.

Table 2. Distribution of Respondents by Age

Age Category	Frequency	Percentage
Less than 30	90	60%
31–40	45	30%
41–50	15	10%

Table 2 shows the age-wise distribution of respondents. The majority of nurses, 90 (60%), were under 30 years of age, followed by 45 nurses (30%) in the 31–40 age group. The smallest proportion, 15 nurses (10%), were in the 41–50 age category. This reflects a predominantly younger nursing workforce in the study sample.

Table 3: Distribution of nurses based on depression, anxiety and stress

Parameter	Sub-category	Frequency (%)
Depression	Normal	30 (20%)
	Mild	18 (12%)
	Moderate	52 (34.66%)
	Severe	45 (30%)
	Very severe	5 (3.33%)
Anxiety	Normal	30 (20%)
	Mild	15 (10%)
	Moderate	45 (30%)
	Severe	15 (10%)
	Very severe	40 (26.66%)
Stress	Normal	75 (50%)
	Mild	18 (12%)
	Moderate	40 (26.66%)
	Severe	15 (10%)
	Very severe	2 (3%)

The table 3 presents the distribution of respondents according to the severity levels of depression, anxiety, and stress. For **depression**, 30 nurses (20%) reported normal levels, 18 (12%) had mild symptoms, 52 (34.66%) had moderate symptoms, 45 (30%) experienced severe symptoms, and 5 (3.33%) reported very severe depression. Regarding

anxiety, 30 nurses (20%) were in the normal range, 15 (10%) had mild anxiety, 45 (30%) had moderate anxiety, 15 (10%) experienced severe anxiety, and 40 (26.66%) reported very severe anxiety. In terms of **stress**, 75 nurses (50%) reported normal levels, 18 (12%) had mild stress, 40 (26.66%) experienced moderate stress, 15 (10%) had severe stress, and 2 (3%) reported very severe stress.
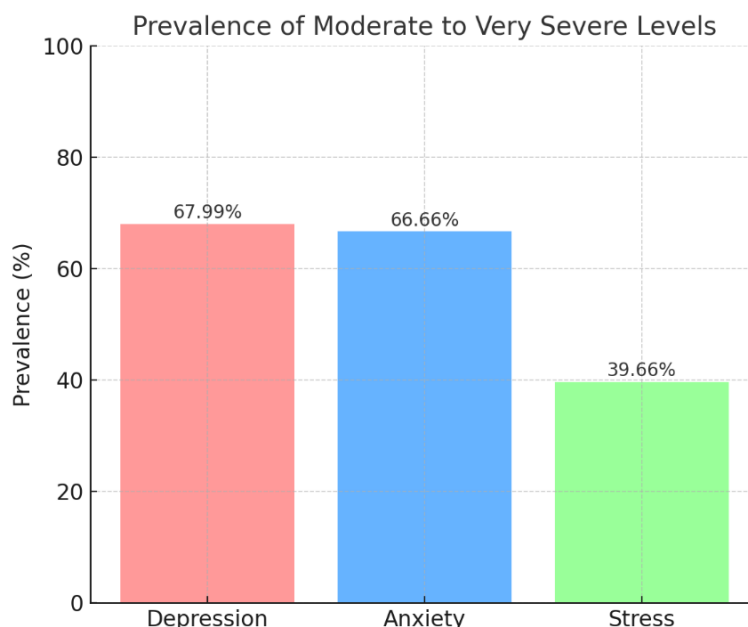

Figure 1. Prevalence of Moderate To Very Severe Levels

Discussion

Globally, bedside nurses frequently experience mental health challenges such as stress, anxiety, and depression. Contributing factors include limited resources, unfavorable working environments, heavy workloads, and shift duties. These issues can directly impact the quality of care provided to patients.

In this study, a total of 150 nurses participated, comprising 45 males (30%) and 105 females (70%). The mean age was 36 ± 4.12 years. Age distribution showed that 90 nurses (60%) were under 30 years, 45 nurses (30%) were between 31 and 40 years, and 15 nurses (10%) were aged 41–50 years. The mean scores for anxiety, depression, and stress were 19.11 ± 2.12, 19.36 ± 3.11, and 13.10 ± 0.90, respectively.

Depression levels were as follows: 30 nurses (20%) normal, 18 (12%) mild, 52 (34.66%) moderate, 45 (30%) severe, and 5 (3.33%) extremely severe. **Anxiety levels** included: 30 nurses (20%) normal, 15 (10%) mild, 45 (30%) moderate, 15 (10%) severe, and 40 (26.66%) extremely severe. **Stress levels** revealed: 75 nurses (50%) normal, 18 (12%) mild, 40 (26.66%)

moderate, 15 (10%) severe, and 2 (3%) extremely severe.

These mental health issues negatively affect nurses' professional performance, quality of life, and the standard of care they provide (Gong et al., 2014). A previous study in Pakistan reported a stress prevalence of 81%, which is substantially higher than our findings—possibly due to differences in data collection tools (Kibria, 2018). Comparable stress prevalence was documented in other South Asian studies utilizing the DASS-21 scale (Lovibond, 1995). Our findings revealed higher anxiety levels compared to earlier studies, which reported rates between 30% and 60% (Khodadadi et al., 2016), and also differed from previous reports indicating a 29.2–53% prevalence of stress among nurses (Psych et al., 2011).

Conclusion

The findings of this study reveal a high prevalence of moderate to very severe levels of depression, anxiety, and stress among nurses working at Lady Willingdon

Hospital, Lahore. Anxiety and depression were particularly common, affecting more than two-thirds of the respondents, while over one-third experienced significant stress. These mental health issues, if left unaddressed, can adversely impact nurses' professional performance, quality of life, and the standard of patient care. The results highlight the urgent need for targeted interventions, such as workplace stress management programs, improved working conditions, and accessible mental health support services, to safeguard the well-being of nursing staff and ensure the delivery of high-quality healthcare.

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