

Assessment Of Work-Related Stress and Anxiety Among Staff Nurses

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ABSTRACT

Background: Health professionals frequently suffer from stress and anxiety owing to the characteristics and working conditions typically found in hospitals. Pressure at work can be positive leading to increased productivity. However, when this pressure becomes excessive, it has a negative impact. The individual perceives themselves as being unable to cope and not to possess the necessary skills to combat their stress and anxiety. The aim of the study was to assess the level of work-related stress and anxiety among staff nurses.

Methods: The research approach selected for the study was a quantitative approach with descriptive design. Fifty staff nurses were selected through convenient sampling techniques. Demographic variables were collected by using interview questionnaires and the level of stress assessed by expanded nursing stress scale and the level of anxiety assessed by modified Hamilton anxiety rating scale.

Results: Majority of work related stress was moderate 70%, and anxiety was 60%. The study reveals that there is no significant association between work related stress and anxiety among staff nurses and their selected demographic variables.

Conclusion: The staff nurse had a moderate level of stress and mild level of anxiety at their workplace. Larger sample size will give a clear picture

Key Words: *Staff Nurse, Stress, Anxiety*

1. INTRODUCTION

A registered nurse (RN) is a nurse who has graduated or successfully passed a nursing program from a recognized nursing school and met the requirements outlined by a country, state, province or similar government-authorized licensing body to obtain a nursing license. An RN's scope of practice is determined by legislation, and is regulated by a professional body or council.(1) Nurses are directly involved in almost all aspects of hospital quality, including patient care, bedside and medication management, assistance with surgeries and other major operations, data collection/reporting, and more.(2) Work related stress and anxiety is associated with burnout, job dissatisfaction, physical and mental health outcomes. Stressors contributing to the experience of work related stress, including poor supervision, conflict with peers and patients, highly demanding job and overtime are all associated with one or more dimensions of burnout. (3)

Job stress has a negative effect on the quality of life related to nurses' health. It can also overshadow the performance of care and reduce such behaviors in nurses, which may be one of the factors affecting the outcome of patients. Understanding more about stress, recognizing the signs of stress and learning about the causes of stress is a good place to start. (4)

According to WHO, estimated 4% of the global population currently experience an anxiety disorder. In 2019, 301 million people in the world had an anxiety disorder, making anxiety disorders the most common of all mental disorders. (5) A recent study reflected that 74% of Indians suffered from stress while 88% suffered from some kind of anxiety disorder. Some of the symptoms include increased heart rate, hyperventilation, chronic fatigue and difficulties with concentration. (6) Every 1 in 5 Tamil Nadu respondents had some form of COVID-19 related stress, and 2.7% had severe stress. For the 25–34 years

age group, those with an annual income of 2.5–5 lakh, and married, were more prone to stress. (7).

According to the World Health Organization (WHO), workplace stress is the health epidemic of the 21st century.(8) In the International Council of Nurses (ICN) 2023 report, more than 40% of nurses globally reported experiencing severe stress or burnout due to workload, emotional labor, and staff shortages.(9)

A study published in the Kaushik *et al.* (2021) studied depression, anxiety, and stress among nurses and analyzed their association with workplace stressors. A hospital-based cross-sectional study was conducted in two tertiary care hospitals. Four hundred and thirty one nurses completed the nurses rated depression, Anxiety and Stress instrument (DASS-21) and a questionnaire probing perceived workplace stressors on a 4 point Likert scale. The stressors across subgroups of workers were compared. Association between stress, anxiety or depression and workplace stressors were analyzed using binary logistic regression. 50.8% of nurses had stress; 74% had anxiety; 70.8% had depression. 79.1% had at least one of them. Stressed, anxious or depressed nurses were more concerned about lack of job satisfaction and conflicts with supervisors. Workplace stressors varied with work areas: private hospital, no job satisfaction, conflicts with doctors and patients; government hospital, acquiring infectious diseases; ICUs, inadequate salary; non-ICUs, odour and sounds in the workplace and conflicts with patients.(10) The above statistical report said that job stress and burnout are more common for health care frontiers, so the researchers aimed to know the work related stress and anxiety among staff nurses which in turn may help to provide better quality of care to the patient

OBJECTIVES

- To assess the level of work related stress among staff nurses
- To assess the level of work related anxiety among staff nurses
- To determine association between the level of work related stress and anxiety among staff nurses with the selected demographic variables.

HYPOTHESES:

- H1: There is a significant association between the level of work related stress and anxiety among staff nurses with selected demographic variables.
- H2: There is a significant association between the level of work related stress and anxiety among staff nurses with selected demographic variables.

ASSUMPTIONS:

- The staff nurses those who are working may experience work related stress and anxiety.

2. MATERIALS AND METHODS

RESEARCH APPROACH - In this study quantitative research approach was used to collect the information regarding work related stress and anxiety among staff nurses.

RESEARCH DESIGN – Descriptive research design was adopted for this research study after obtaining the formal ethical clearance from the Institutional Review Committee

POPULATION – The accessible population of this study was staff nurses, those who were working at SVMCH&RC, Ariyur, Puducherry

SAMPLE SIZE – The sample size was 50 Staff nurses.

SAMPLING TECHNIQUE – Non probability purposive sampling technique was used for the study.

SAMPLING CRITERIA

INCLUSION CRITERIA

It includes staff nurses,

- Ø Those who are able to read and write in English.
- Ø The Nurses who are working in any of the shifts
- Ø Those who are present at the time of data collection,
- Ø Both gender included

EXCLUSION CRITERIA

It includes staff nurses,

Ø Those who are not willing to participate study.

Ø Those who are ill during the data collection period.

DEVELOPMENT AND DESCRIPTION OF DATA COLLECTION INSTRUMENT

The instruments for data collection consist of the following sections,

Section A: Demographic Profile - The structured questionnaires were used to collect the demographic variables including Age, Gender, Educational status, Marital status, Religion, Number of children, Place of residency of staff nurses.

Section B: Structured knowledge questionnaires on work related Stress (Expanded Nursing Stress Scale) The expanded nursing stress scale was developed by Gray-Toft and Anderson in 1981. (11) This consists of 34 structured questionnaires under 5 components. The respondents select a score for each question which states to what extent the level of stress affects work. The score ranges from 1 representing never stressful, 2 representing occasionally stressful, 3 representing frequently stressful, 4 representing extremely stressful, 5 representing does not apply. The total score is 170 in this study. It is used to assess the level of work related stress among the staff nurses.

Section C: Structured knowledge questionnaires on work related Anxiety (Modified Hamilton Anxiety Scale) The HAM-A was originally developed by Max Hamilton in 1959. (12) It consists of 14 questionnaires under 5 components. The respondents select a score for each question which states to what extent the level of anxiety affects work. The score ranges from 0-4; and the total score ranges from 0-56. In this study it is used to assess the level of work related anxiety among the staff nurses

METHOD OF DATA COLLECTION

After obtaining permission from the concerned authority and Institutional Research Review committee clearance (Ref. No: ICON/IRC/005/2023); the investigator gave a self-introduction and explanation about the study protocol to the samples. Fifty Staff nurses working at a Tertiary Care Hospital were selected using non probability purposive sampling technique for the study on November 2023. Both Male and Female Nurses who are able to read and write in English and work in various shifts were selected. Nurses who are not willing to participate or who fell ill during the data collection period were excluded.

3. RESULTS

Table 1: Frequency and percentage distribution of the demographic variables among the staff nurses N-50

S.no	Demographic variable	Frequency (N)	Percentage (%)
1.	Age		
	a. 20-25 years	13	26
	b. 25-30 years	19	38
	c. 30-35 years	9	18
	d. Above 35 years	9	18
2.	Gender		
	a. Male	14	28
	b. Female	36	72
3.	What is your highest educational qualification that you have completed?		
	a. Diploma in general nursing and midwifery	2	4
	b. P.B.B.Sc	10	20
	c. Bachelor degree nursing	34	68
	d. Master degree in nursing	4	8
4.	How long have you been working as a registered nurse?		

	a. Less than 1 year	17	34
	b. Above 1 year	14	28
	c. Above 2 year	19	38
5.	How long have you been working in this unit -SVMCH&RC?		
	a. 6 month	14	28
	b. 6 month -1 year	12	24
	c. 1 year - 2 year	24	48
6.	Marital status		
	a. Married	38	76
	b. Unmarried	10	20
	c. Widow	1	2
	d. Divorce	1	2
7.	Religion		
	a. Hindu	35	71
	b. Christian	11	22
	c. Muslim	3	6
	d. Others	1	1
8.	Do you have any children?		
	a. Yes	40	80
	b. No	10	20
9.	How many children do you have?		
	a. Nil	20	40
	b. 1	12	24
	c. 2	13	26
	d. Above 2	5	10
10.	Place of Residency		
	a. Urban	24	48
	b. Rural	17	34
	c. Semi Urban	9	18
11.	Income per month		
	a. 8000-10000	17	34
	b. 10000-15000	24	48
	c. Above 15000	9	18

The above table shows that the frequency and percentage distribution of samples on the basis of demographic variables among staff nurses. Regarding the age of staff nurses, the majority were in 25-30 years (38%), (26%) were in 20-25 years

and (18%) were in 30-35 years and above 35 years were (18%). Regarding gender (28%) of them male and (72%) of them were females. Regarding educational qualification of the staff nurses (68%) of them were B.Sc. Nurses, (20%) of them P.B.B.Sc, (8%) of them were Master degree holders in nursing, and (4%) of them were DGNM. Regarding working as a registered nurse, the majority were working for more than 2 years (38%), less than 1 year was (34%) and above 1 year was(28%). Regarding staff nurses working in SVMCH&RC majority were 1-2 years (48%), 6 month (28%) and 6 month -1 year (24%). Regarding marital status, (76%) were married, (20%) unmarried, widow (2%), and divorce (2%). Regarding religion Hindu (71%), Christian (22%), Muslim (6%) and others (1%). Regarding the presence of children, (80%) had children and (20%) did not have any children. Regarding the number of children, the majority (40%) had no children, (26%) had two children, (24%) had one child. Regarding place of residence, (48%) belonged to Urban, and (34%) were Rural and (18%) belonged to Semi Urban area. Regarding income per month, the majority were 10,000- 15,000 (48%), 8,000-10,000 were (34%) and above Rs15,000 were (18%).

Table 2: Frequency and percentage for the level of work related stress among the staff nurses N-50

STRESS LEVEL	FREQUENCY (N)	PERCENTAGE (%)
Mild	10	20
Moderate	35	70
Severe	5	10

The above table shows the frequency and percentage distribution of level of work related stress among the staff nurses. Majority of Nurses (70%) had Moderate, 20% had mild and 10% had severe anxiety

Table 3: Frequency and percentage of level of work related anxiety among the staff nurses N-50

ANXIETY LEVEL	FREQUENCY (N)	PERCENTAGE (%)
No anxiety	3	6
Mild anxiety	30	60
Moderate anxiety	15	30
Severe anxiety	2	4
Extreme anxiety	0	0

The above table shows the frequency and percentage distribution of level of work related anxiety among the staff nurses. Among the staff nurses, 60% experienced mild anxiety, 30% moderate anxiety, and 4% severe anxiety.

Regarding the association between work related stress among staff nurses with the selected demographic variables, there was no significant association between work related anxiety among staff nurses with the selected demographic variables.

4. DISCUSSION OF THE RESEARCH FINDINGS

The first objective of the study was to assess the level of work related stress among the staff nurses at SVMCH&RC.

In this study the result indicates that the frequency and percentage distribution of level of work related stress among the staff Nurses. Among the staff Nurses, 70% experienced moderate stress, 20% mild stress and 10% experienced severe stress. A similar study was conducted by Safiya Al-Yaqoubi *et.al.*,(2023), A cross-sectional study to explore work related stress and coping strategies Omani Nurses Working in Tertiary Governmental Hospitals at Muscat. The samples were selected through proportional population sampling from 5 selected tertiary care hospitals. Data were collected through self-administered nursing stress scale (NSS). Descriptive and inferential statistics were used to analyze the data. The sources of WRS among nurses showed the percentage mean scores ranging from 8.5% to 21%. About 83.3% of participants had a moderate perceived level of stress. (13)

The second objective of the study was to assess the level of work related anxiety among the staff nurses at SVMCH&RC.

In this study the result indicates that the frequency and percentage distribution of level of work related anxiety among the staff nurses. Among the staff Nurses 60% experienced mild work-related anxiety, 30% moderate anxiety, 4% severe anxiety, 6% no anxiety and no one experienced severe anxiety. Nobuyasu Awano *et.al.*,(2020) conducted a similar study to assess the degree of anxiety among healthcare workers during the COVID-19 pandemic. This survey involved medical healthcare workers between April 22 and May 15, 2020. Degree of symptoms of anxiety was assessed using the Anxiety Disorder Scale. In total, 848 healthcare workers participated in this survey: 104 doctors, 461 nurses, 184 other comedical staff, and 99 office workers. Among all participants, 85 (10.0%) developed moderate-to-severe anxiety disorder, and 237 (27.9%) developed depression. (14)

The third objective was to find out the association between the work related stress and anxiety among the staff nurses at SVMCH&RC with the selected demographic variables.

The study shows that there is no significant association between the work related stress and anxiety among staff nurses with the selected demographic variables. A Similar study was conducted by Lipei Zhao *et.al.*,(2023) a cross-sectional survey among nurses (N = 3,770) working at the maternal and child health institutions in Henan province, China. Multiple linear regression models were used to explore the factors associated with anxiety. As per report experiencing work-family conflict ($p < 0.001$), and those with lower job satisfaction ($p < 0.001$) were more likely to experience anxiety. Additionally, job satisfaction partially ($a*b = 20.90\%$) mediated the relationship between work- family conflict and anxiety. (15)

5. CONCLUSION

The study concluded that the staff nurses experience moderate levels of stress and mild levels of anxiety in their work setting. There is no association between work related stress and anxiety among staff nurses with the selected demographic variables.

6. RECOMMENDATIONS FOR FUTURE STUDIES

Based on findings of the present study, the following recommendation have been made,

- Similar studies can be conducted in different settings.

The study can be replicated with larger samples

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