Level of Workplace Stress among Staff Nurses Working at PICU in Selected Tertiary Care Hospital, Bangalore

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ABSTRACT

Work related stress or job stress is now a subject of concern to public and private health officials, as stress at work place can result in poor work performance and also personal life becomes increasingly unhappy. A descriptive study was done on 30 PICU staffs to assess the level of workplace stress in PICU at Tertiary Care Hospital. Workplace Stress Scale was used to measure the level of workplace stress by using purposive sampling technique. Data was analyzed using simple descriptive statistics and association of various demographic variables with the level of workplace stress was analyzed by inferential statistics. Chi square test and level of workplace stress among PICU staff nurses was examined using the SPSS version 16.0. Among total participants working in PITU, 14 (47%) had moderate workplace stress and 11 (37%) staff nurses had severe workplace stress. There was no statistically significant association between the workplace stress and selected baseline variables such as age, gender, educational status, years of experience and no of patients allotted per day.

Keywords: Workplace stress, PICU staff nurses.

INTRODUCTION

Workplace stress has been regarded as an occupational hazard since 1950's. In fact, occupational stress has cited as a significant health problem. Work stress in nursing was first assessed in 1960 which identified four sources of anxiety among nurses, they are patient care, decision making, taking responsibility and change. The nurse's role has long been regard as stress-filled based upon the physical labor, human suffering, work hours, staffing, and interpersonal relationship that are central to the work nurses do. Since the mid 1980's, however, nurse's work stress may be escalating due to the increasing use of technology, continuing rises in health care costs, and turbulence within the work environment. [1]

Nevertheless, work stress remains significant concerns in nursing, affecting both individuals and organizations. For the individual nurse, regardless of whether stress is perceived positively or negatively, the neurological, endocrine response yields physiologic reactions that may ultimately contribute to illness. In the health care organization, work stress may contribute to absenteeism and turnover, both of which deviate from the quality of care. Hospitals in particular are facing a workforce crisis. The demand for acute care services is increasing concurrently with changing career expectations among potential health care workers and growing dissatisfaction among existing hospital staff. [2]

Health professionals frequently suffer from stress owing to the characteristics and working condition typically found in hospital. Pressure at work can be positive leading to increased productivity. However, when this pressure becomes excessive, it has a negative impact. The individual perceive themselves as being

unable to cope and not to possess the necessary skills to compact their stress. Stress is acknowledged to be one of the main causes of absence from work. [3]

There is a widely held belief that nursing is the most inherently stressful occupation. Nursing is characterized by a number of stressors not commonly experienced by other profession. [4] These include not only dealing with situations involving death and dying, but also more mundane stressors such as working long hours, working shifts and on weekends. It is the complex and demanding nature of the profession that has encouraged much recent research on nurses sources and severity of workplace stress.

Objectives
1. To assess the level of workplace stress among staff nurses.
2. To find an association between the level of workplace stress with their selected baseline variables.

HYPOTHESIS:
H_1: There will be significant association between the level of workplace stress and selected baseline variables.

MATERIALS AND METHODS
Research approach: A quantitative approach was adopted for this study.
Research design: A descriptive design was selected for the present study.
Settings: The study was conducted in Pediatric Intensive Care Unit at selected hospital, Bangalore.
Sample/Sample size: Sample is a subset of population. The sample selected for this study was PICU staff nurses who were fulfilling the inclusion criteria. Total sample size in this study was 30.
Sampling technique: Purposive sampling technique was used for the study.
Description of the Tool:
Section A: Consists of Baseline variables including age, gender, education, no. of years of experience, no of patients allotment.
Section B: Workplace Stress Scale was used to assess the level of workplace stress among nurses. Scoring Interpretation: 15 or lower: Chilled out and calm
  16 - 20: Fairly low
  21 - 25: Moderate stress
  26 - 30: Severe stress
  31 - 40: Stress level is dangerous
Data Collection Procedure: Permission was obtained from the concerned authority. The purpose of the study was explained to the subjects and informed consent was taken. Data was collected by direct administration of demographic performa and Workplace stress scale.
Data analysis
Descriptive statistics: Frequency and percentage distribution will be used to analyze the baseline variables.
Inferential statistics: Association between knowledge and selected demographic variables will be calculated using Kruskal Wallis Chi square test.

RESULTS
Part I: Description of the baseline variables

Table 1: Frequency and Percentage distribution of samples according to their baseline variables N = 30

S.No.	Baseline Variables	Category	Frequency (F)	Percentage (%)
1.	Age in years	Below 30 years	26	86.67 %
		30 years and above	4	13.33 %
2.	Gender	Male	2	6.67 %
		Female	28	93.33 %
3.	Education	GNM/Diploma	7	23.33 %
		Bsc/ PCBsc	23	76.67 %
4.	Years of Experience	Above 5 years	5	16.67 %
		Five years and below	25	83.33 %
5.	No of patients allotted per day	One	3	10 %
		Two	11	36.67 %
		Above 2	16	53.33 %

It deals with the distribution of the participants according to their baseline variables. A sample of 30 staff nurses were selected through purposive sampling method based on the inclusion criteria. Collected data was analyzed using descriptive statistics and summarized in terms of percentage.

The above table shows that the majority 26 (86.67%) were below 30 years and 4 (13.33%) belongs to the age group of 30 years and above. The categories female were 28 (93.3%) and male were 2 (6.67%). The numbers of samples with GNM/ Diploma were 7 (23.33%) and Bsc / PcBsc were 23 (76.67%). Majority of them have below five years of experience (83.33%). No of patients allotted 1 per day is 3 (10%), 2 per day is 11 (36.67%) and above 2 per day is 16 (53.33%).

Part II: Assessment of the level of workplace stress and the selected variables

Table 2: Frequency and Percentage distribution of samples according to their workplace stress

Baseline Variables	Category	Workplace Stress				
		Chilled Out f (%)	Fairly Low f (%)	Moderate Stress f (%)	Severe Stress f (%)	Dangerous f (%)
Age in years	Below 30	0	3 (10)	10 (33.3)	11 (37)	2 (7)
	30 years and above	0	0	4(13.3)	0	0
Gender	Male	0	0	1 (3.3)	1 (3.3)	0
	Female	0	3 (10)	12 (40)	11 (37)	2 (7)
Educational Status	GNM/Diploma	0	0	1 (3.3)	7 (23.3)	0
	Bsc/PCBsc	0	3 (10)	12 (40)	5 (17)	2 (7)
Years of experience	Above 5 years	0	0	2 (7)	1 (3.3)	0
	5 years and below	0	3 (10)	11 (37)	11 (37)	2 (7)
No of patients allotted per day	1	0	0	3 (10)	0	0
	2	0	0	5 (17)	6 (20)	0
	Above 2	0	3 (10)	5 (17)	6 (20)	2 (7)

Table 3: Workplace stress score among the subjects

S. No.	Subject Workplace Stress	
	Mean	Standard Deviation
1.	25.26	3.58

The mean score is 25.26 and its standard deviation is 3.58.

Table 4: Frequency and Percentage distribution of the level of workplace stress among the staff nurses   N = 30

	Number of staff nurses	Percentage
Chilled out	-	-
Fairly low	3	10%
Moderately stress	14	47%
Severe	11	37%
Stress level is potentially dangerous	2	7%

The data in table 3 depicts that among 30 staff nurses working in PITU, 14 (47%) had moderate workplace stress and 11 (37%) staff nurses had severe workplace stress.

Part III: Association between the workplace stress and their selected baseline variables

Kruskal Wallis Chi square test is used to identify the association between the levels of workplace stress among selected baseline variables.

H$_1$: There will be significant association between the levels of workplace stress with their selected baseline variables.

Table 5: Association between the level of workplace stress and selected baseline variables N = 30

Baseline variables	Category	Workplace stress					df	Kruskal Wallis Chi Square	p value
		Chilled Out	Fairly Low	Moderate stress	Severe	Dangerous			
Age in years	Below 30	0	3 (12%)	10 (38%)	12 (42%)	2 (8%)			0.153
	30 years and above	0	0	4(100%)	0	0	4	5.27	NS
Gender	Male	0	0	1 (50%)	1 (50%)	0			0.926
	Female	0	3 (11%)	13(46%)	10 (36%)	2 (7%)	4	0.466	NS
Education	GNM/Diploma	0	0	2(25%)	6 (75%)	0			0.063
	Bsc/PCBsc	0	3 (14%)	12 (55%)	5 (23%)	2 (9%)	4	7.287	NS
Experience in years	Above 5 years	0	0	2(25%)	6 (75%)	0			0.063
	Five years and Below	0	3 (14%)	12 (55%)	5 (23%)	2 (9%)	4	7.287	NS
Number of Patients Allotment	1	0	0	3(100%)	0	0			
	2	0	0	5 (63%)	3 (37%)	0			0.291
	Above 2	0	3 (16%)	6(32%)	8 (42%)	2 (11%)	8	7.334	NS

Significant = S (p<0.05 levels), Non significant = NS

The data presented in the table 4 shows that there was no statistically significant association between the workplace stress and selected baseline variables such as age ($x^2 = 5.27$, p > 0.153), gender ($x^2 = 0.466$, p > 0.926), educational status ($x^2 = 7.287$, p > 0.063), years of experience ($x^2 = 7.287$, p > 0.063) and number of patients allotment ($x^2 = 7.334$, p > 0.291). Therefore the research hypothesis H$_1$ for the selected variable was rejected.

Summary

The data was gathered and analyzed using both descriptive and inferential statistics. There is no statistical significant association between workplace stress and selected baseline variables such as age, gender, educational status, years of experience and no. of patients allotment. Therefore the research hypothesis H$_1$ for the selected baseline variables was rejected.

DISCUSSION

The present study revealed that among 30 staff nurses working in PITU, 47 % had moderate stress and 37 % had severe workplace stress using the Workplace Stress Scale. Similar findings were shown in the study which was conducted on occupational stress among nurses, to determine the stress level. The sample size was 87 selected using random sampling techniques. The research was based on cross sectional design. Data was collected using pretest and self administered questionnaire. The study results found that 87% of nurses reported of occupational stress. The study concluded that high prevalence of stress was found among nurses. [5]

Another study was done to identify and analyze the professional stressors, to evaluate the level of stress in nurses in intensive care unit and assess the correlation between the perception of stress and psychological and somatic symptoms disease shown by nurses. The research design was cross sectional study, carried out in the intensive care units in health centers, Serbia. The sample population encompassed 1000 nurses; expanded nursing stress scale

was used as the research instruments. The result was found to say that there was severe stress among nurses due to the impact of psychological stressors related to work overload causing somatic symptoms. [6]

This study shows that there is no statistically significant association between the workplace stress and selected baseline variables such as age ($x^2 = 5.27$, p > 0.153), gender ($x^2 = 0.466$, p > 0.926), educational status ($x^2 = 7.287$, p > 0.063), years of experience ($x^2 = 7.287$, p > 0.063) and number of patients allotment ($x^2 = 7.334$, p > 0.291) Similar study was conducted by Milutinovic D et al. among 25 critical care nurses working in intensive care unit, Chandigarh on stress level and underlying stressors. So the study result shows that staff nurses have mild to moderate level of stress while working in ICU settings and nurses with more working experience in ICU face less stress than those who have less year of working experiences. [7]

RECOMMENDATION

1. The study can be replicated in different settings with large samples for better generalization.
2. A follow up study can be done to assess level of workplace stress among higher level nurses.

Limitations

1. The size of the sample was small to draw generalization.
2. The study was limited to only one hospital for a particular study period.

CONCLUSION

This study was descriptive study conducted in Tertiary Care Hospital. The study was carried out to assess the level of workplace stress among staff nurses in PITU. The sample size was 30, among them 2 were male and 28 were female. The major finding of the study was among 30 PITU staff nurses, 14 (47%) had moderate stress and 11 (37%) had severe stress.

There is no statistically significant association between the workplace stress and selected baseline variables such as age ($x^2 = 5.27$, p > 0.153), gender ($x^2 = 0.466$, p

> 0.926), educational status ($x^2 = 7.287$, p $>$ 0.063), years of experience ($x^2 = 7.287$, p $>$ 0.063) and number of patients allotment ($x^2 = 7.334$, p > 0.291).

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