Assessment of the Factors related to Job Stress and Coping Ability among the Staff Nurses in the Selected Hospitals of Pune City to develop a Self Instructional Module

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Abstract: <u>Background</u>: *Nurses are exposed to many stressful demands and pressures. This article deals with the assessment of factors related to job stress and coping ability among staff nurses in selected hospitals of Pune city to develop a self-instructional module. The objective was to find an association between job stress, coping ability and background variables.* <u>Methodology:</u> *A quantitative approach was used with descriptive exploratory survey design to assess various factors related to job stress and coping strategies adopted by staff nurses. A stress rating scale and coping questionnaire were used.* <u>Result:</u> *Descriptive and inferential statistical analysis indicated that about 86 % of the staff from intensive care areas has severe stress and 14 % have moderate stress. Highest 27.78 % factors related to stress are organizational factors. Though majority of staff suffer from stress, 59 % have good coping.* <u>Conclusion:</u> *Based on the findings of the analysis it can be concluded that demographic variables do not affect the level of stress or coping ability. The coping ability of staff nurses is not affected due to the level of stress they are suffering from. Thus, level of stress and coping ability do not depend on each other.*

Keywords: job stress, coping ability, staff nurse, self-instructional module.

1. Introduction

"Stress is like spice - in the right proportion it enhances the flavor of a dish. Too little produces a bland, dull meal; too much may choke you." - Donald Tubesing

Stress is a pattern of physiological, behavioral, emotional, and cognitive responses to real or imagined stimuli that are perceived as blocking a goal or endangering or otherwise threatening our well-being. However, it is important to realize that small amounts of stress may be desired, beneficial, and even healthy. But excessive amounts of stress may lead to many problems in the body that could be harmful.

Stress could be caused by something external and related to the environment but also may not be directly created by external events, but instead by the internal perceptions that cause an individual to have anxiety/negative emotions surrounding a situation such as pressure, discomfort, etc., which they then deem stressful.

Each individual is exposed to a range of stressors both at work and in their personal lives. 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 combat their stress. Stress is acknowledged to be one of the main causes of absence from work.

Occupational stress is any discomfort which is felt and perceived at a personal level and triggered by instances, events or situations that are too intense and frequent in nature so as to exceed a person's coping capabilities and resources to handle them adequately. The results of a survey done by the Human Resources in India, in 2011, indicated that 40 % of workers reported their job was very or extremely stressful. The research studies collected during the literature review revealed that there is a prevalence of job stress among the staff nurses working in the hospital. The extent of job stress of ICU nurses was relatively high. Thus there is a need to find out the factors related to job stress and coping abilities of the staff nurses from intensive care unit and to develop a self instructional module to guide the staff for managing their stress.

2. Material & Methods

The present study aims to assess the factors related to job stress and coping strategies experienced by staff nurses working in the intensive care areas of selected hospitals of the city and coping strategies adopted by them. As the data obtained for the present study will be in numerical values, a quantitative approach will be used for this study.

3. Research Design

A descriptive exploratory survey design will be used in the present study to assess the various factors related to job stress and coping strategies adopted by the staff nurses of intensive care areas in response to their stress.

3.1 Setting

The study will be conducted in two selected hospitals from the city. The hospitals are under a under private trust. The hospitals are selected for the availability of sample, feasibility of sample selection and suitable timings considering the staff duty.

3.2 Population

In this study, the population will include all the staff nurses working in all intensive care areas having minimum one year of experience in that area.
Target Population: All staff nurses working in Intensive Care Areas in the city.
Accessible Population: Staff nurses working in Intensive Care Areas from selected hospitals of the city.

3.3 Sampling Technique

In the present study, the investigator will select those staff nurses who have minimum one year of experience in the Intensive Care Area being posted and those who are present at the time the study is conducted. Hence, the sampling technique is non-probability purposive sampling.

3.4 Sample and Sample Size

In the present study, the sample consists of the staff nurses from selected hospitals of the city working in intensive care areas having minimum one year experience. The total sample selected for the study will be one hundred (100).

3.5 Development of New Tool

The tool was divided into following sections with criteria checklist separate for each section. The sections included in the tool were;

Section I: Demographic profile of the nurses
Section II: Stress rating scale to identify the factors influencing job stress
Section III: Coping questionnaire for coping with job stress.

4. Method of Data Collection

1) Inclusion Criteria:
   - Staff nurses having minimum one year of experience.
   - Staff nurses working in intensive care areas.
   - Staff nurses who can understand English / Marathi.
   - Both genders will be included in this study.
2) Exclusion Criteria:
   - Staff nurses not willing to participate in the study.
   - Staff nurses who have remained absent during the study.
   - Staff nurses suffering from chronic illness or disabilities.

4.1 Data Collection and Procedure

The investigator has obtained permission from two private hospitals of the city. The study samples were introduced and explained about the study topic and an informed written consent was obtained from the subjects. The tool was distributed to the subjects and any difficulties while filling the tool were addressed by the investigator. Based on the findings of the study, the investigator has prepared the master sheet with the guidance of the statistician.

5. Major Findings

As the result of increasing healthcare needs and demands and insufficient nursing care providers, the nursing professionals are facing a lot of stress in day to day work. So, it is essential to understand the factors behind their stress and their coping abilities to adapt to the job stress. The findings emerging from this study related to stress and coping are discussed below. The analysis of the study was done using the descriptive and inferential statistics.

Section I: Demographic profile of the staff nurses
Maximum (67%) of the staff nurses belong to the age group of 20 – 25 years, maximum (53%) of them are female. 85% of the staff nurses have an experience of about 1 – 2 years. Majority (80%) of them has completed B. Sc. Nursing and most (57%) have done some kind of additional ICU course / training.

According to the type of family, majority (75%)of them belonged to nuclear family. Maximum of the subjects (81%) were unmarried and out of the married subjects (19%), majority (9%) had no children. 95% of the staff nurses have monthly income of below Rs. 10,000. Majority of the annual income was between Rs. 1, 00,001 to 2, 00,000. Distribution of nurses according to position at the work place shows that majority (88%) belonged to staff nurse category.

Section II: Stress rating scale to assess the factors related to stress
Majority 86 % of the staff nurses from intensive care areas are suffering from severe stress (109 – 144) and 14 % from moderate stress (73 – 108). Various factors related to stress were as follows;
a) **Physical factors:** Majority 47 % are tensed regarding their unpreparedness to handle sophisticated equipments in ICU, 53% receives required help from the health care team members. Physical factors contribute to 13.79 % of stress.
b) **Personal factors:** 78% of the staff nurses prefer working in ICU than in any other wards and 43 % of the staff nurses are more likely to make errors in tense situations; fairly often 43 % of the staff nurses are less effective at work when tired; majority 49 % fairly often feel the need for improving their knowledge to keep updated and 41 % of the staff nurses fairly often state that their personal difficulties adversely affect their performance. Personal factors contribute to 37.50 % of stress.
c) **Organizational factors:** Fairly often considerable staff turnover is present in the department of 79 % of the staff nurses; 50 % of the staff nurses fairly often feel that ICU duty is very demanding / hectic; 42 % staff nurses reported almost never sufficient leave is granted for genuine reasons; maximum 56 % of the staff nurses sometimes don't mind doing overtime when required and 68 % staff nurses state that they are almost never paid

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adequately for their work. Majority 39.66% of stress is attributed to organizational factors.

d) **Emotional factors:** Majority 62 % of the staff nurses are satisfied with their professional status and 76 % feel gratified if their work is appreciated by other health care members; 71 % staff nurses receive help from their colleagues when they have a busy day; 50 % are fairly often responsible for all the work of their coworkers, they being inefficient and majority 96 % of the staff nurses never feel that there is discrimination in job distribution between male and female staff. Emotional factors contribute to 9.05 % of stress.

Table 1: Frequency and percentage distribution of level of stress of staff nurses working in Intensive Care Areas. N = 100

Sr. No.	Levels of stress	Range of scores	Frequency (f)	Percentage (%)
1	Mild stress	36 – 72	0	0
2	Moderate stress	73 – 108	14	14
3	Severe stress	109 -144	86	86
4	Very severe stress	145 - 180	0	0

Table 2: Distribution of stress among the staff nurses working in intensive care areas according to the factors related to stress. N = 100

Sr. No.	Factors related to stress	Range of scores	Frequency (f)	Percentage (%)
1	Physical factors	0 - 40	32	13.79
2	Personal factors	0 - 45	87	37.50
3	Organizational factors	0 - 50	92	39.66
4	Emotional factors	0 - 45	21	9.05

Section III: Coping abilities of the staff nurses from intensive care areas

The findings reveal that 64 % of the staff nurses sometimes fought for what they wanted; 95 % of them sometimes tried to keep their feelings to themselves; 83 % always thought how a person they admire would handle the situation and used that as a model; 95 % of staff nurses always got professional help at work, 69 % always asked a relative or friend they respected for advice and 69 % sometimes talked to someone about their feelings; majority 52 % of staff nurses always apologized or did something to make up for the situation; 58 % staff nurses sometimes slept more than usual and maximum while 66 % tried to make themselves feel better by eating, drinking, smoking, using drugs or medication, and so forth; 60 % made a plan of action and followed it and 95 % always came out of the experience better than when I went in. Majority 69 % always changed something (some aspect) about themselves. The study shows that majority (59 %) of the staff nurses had good coping abilities and 41 % had average coping abilities.

Table 3: Frequency and percentage distribution of coping abilities of the staff nurses working in Intensive Care Areas. N = 100

Sr. No.	Coping Ability	Scoring	Frequency (f)	Percentage (%)
1	Good coping	35 - 70	59	59
2	Average coping	71 - 105	41	41
3	Poor coping	106 - 140	0	0

Section IV: Association between factors related to job stress and demographic variables

No significant association between the demographic variables (age, gender, years of service, experience, qualification, additional training, type of family, marital status, number of children, occupation of partner, income and position of staff nurses) and factors related to stress and coping ability was found indicating that stress is not affected by age, experience, qualification or position of the staff nurse.

The association between the levels of stress and coping ability among the staff nurses from intensive care areas indicate no significant relationship between levels of stress and coping ability. The chi square value is 1.064 and p - value is 0.3024 indicating that level of stress and coping ability do not depend on each other.

Table 4: Association between stress factors and coping ability of the staff nurses from intensive care areas. N = 100

Levels of		Stress		Total	Chi square	P value	df	Level of Significance
		Moderate	Severe					
Coping	Good	6	53	59	1.064	0.3024	1	NS
	Average	8	33	41				
	Total	14	86	100				

6. Discussion and Summary

The research question for the study was to find whether there is association between job stress, coping ability and background variables among the staff nurses. After the analysis and interpretation it can be concluded that the there is no association of background variables with job stress and coping ability among the staff nurses.

Based on the objectives of the study and research question, the findings of this study were analyzed and interpreted using descriptive and inferential statistics. The following findings were obtained from the statistical analysis.

Section I: The assessment of demographic variables revealed that most of the staff was male and from younger age group (20 - 25 years) with the qualification of B. Sc. Nursing. Maximum staff had an experience of about 1 – 2 years. Most of them were unmarried with a monthly income of below Rs. 10,000. Majority of the staff held the position of staff nurse in ICU.

Section II: About 86 % of the staff from intensive care areas has severe stress and 14 % has moderate levels of stress. Majority (39.66 %) of the factors related to stress are organizational factors.

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Section III: Majority of the intensive care area staff (59 %) have good coping ability. The most commonly used coping strategies were positive thinking, discussion with colleagues or friends, taking professional help / advice, sleeping more, planning the work and learning from the experience.

Section IV: The association of demographic variables with factors related to stress suggests that stress is not significantly affected by age, gender, years of service, experience, qualification, additional training, type of family, marital status, number of children, occupation of partner, income or position of the staff nurse in the intensive care area.

The association of demographic variables like age, gender, years of service, experience, qualification, additional training, type of family, marital status, number of children, occupation of partner, income or position with coping ability shows that background variables do not affect the coping abilities of the staff nurses.

The association between levels of stress and coping ability of the staff nurses indicate that coping is not affected due to the level of stress they are suffering from. Thus, level of stress and coping ability do not depend on each other.

7. Conclusion

Based on the study conducted and findings of the analysis it can be concluded that the demographic variables such as age, experience of the staff nurse, qualification and position of the staff nurse in the unit does not affect their level of stress or their coping ability. About 86 % of the staff from intensive care areas has severe stress and 14 % have moderate levels of stress. 27.78 % factors related to stress are organizational factors. Though majority of the staff suffer from stress, 59 % have good coping. The coping ability of the staff nurses is not affected due to the level of stress they are suffering from. Thus, level of stress and coping ability do not depend on each other.

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