

Research Article

A Study to Assess the Level of Stress and Coping Strategies among Nurses working in Intensive Care Units of Sher-I-Kashmir Institute of Medical Sciences, Soura, Srinagar

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A B S T R A C T

Introduction: In every hospital, the intensive care unit has been described as an extremely stressful environment for nursing staff because it is an area of the hospital that provides comprehensive and continuous care for critically ill patients. The objective of the present study is to assess the level of stress and coping strategies used by nurses working in the intensive care units of Sher-I-Kashmir Institute of Medical Sciences, Soura, Srinagar.

Method: This is a cross-sectional descriptive study conducted on 50 nurses working in the intensive care units of Sher-I-Kashmir Institute of Medical Sciences, Soura, Srinagar. Sampling was based on the purposive method. Descriptive and inferential statistics were used to analyse the data.

Results: Majority of the ICU Nurses reported high level of stress. The most common coping strategy used was belief in religion and the least used strategy was the use of substances. There was a significant association between the stress level of study subjects and age and clinical experience. There was a significant association of coping level with demographic variables such as gender, professional qualification, and clinical experience, and there was no significant association between coping level and demographic variables like age and marital status. There was a negative correlation between stress and Approach coping level, and a positive correlation between stress and Avoidant coping level.

Conclusion: Stress among ICU nurses reaches values that are considered seriously high. The additional knowledge that Avoidant coping aggravates stress can serve as the basis in formulating work-related stress reduction strategies among nurses caring for critical patients.

Keywords: Stress, Coping Strategies, Intensive Care Unit, SKIMS

Introduction

Stress is an intrinsic condition, which results from multiple factors.¹

It is "a relationship between the person and the environment that is appraised by the person as taxing or exceeding his resources and endangering his wellbeing".² Working pattern in the field of health and nursing has changed a lot over the last few centuries. Technological advances and awareness among people resulted in professional environments being moulded and situations that lead to emotional stress. These changes have many implications for patient safety and the health of healthcare professionals.³

Stress at the workplace is considered a major challenge for the nursing profession. Increased workload, lack of knowledge in the management of stress, not enough social or family support and lack of job satisfaction are major concerns in nursing.

Coping is the person's effort to manage psychological stress.⁴ The first step to managing stress is to identify the triggers that cause stress. Attention should be paid to one's feelings when one is under stress. If the reason for stress is not easily identified or manageable, an overwhelming feeling, depression, or helplessness may arise and it may seem like an impasse. In such a situation, medical consultation is required.⁵

In every hospital, the intensive care unit has been described as an extremely stressful environment for nursing staff⁶ because it is an area of the hospital that provides comprehensive and continuous care for critically ill patients. As we know, the nursing profession is dynamic and is sensitive to medical and technological development, but the core of nursing practice to which a professional nurse integrates in clinical practice has not been developed with the changing medical and technological development. Nowadays work environment is given much importance and is discussed by all labour organisations, therefore every organisation is monitoring stressful working environment strictly and working on how to control its countereffects.

Objective

To assess the level of stress and coping strategies used by nurses working in the intensive care units of Sher-I-Kashmir Institute of Medical Sciences, Soura, Srinagar.

Materials and Method

Setting

The study was conducted using descriptive method, and the study population was nurses who had been employed in intensive care units of Sher-I-Kashmir Institute of Medical Sciences, Soura, Srinagar. 50 ICU Nurses of SKIMS were selected for the study using purposive sampling. Those

nurses who agreed to participate in the study and were working in ICU were included in the study. Those who were on leave at the time of data collection or were unwilling to take part in the study were excluded. The duration of the study was 6-8 weeks. The study was approved by the Institutional Ethical Committee of SKIMS, Soura, Srinagar.

Tool Used

The final tool developed comprised of three sections:

Section I: Demographic Data Related to ICU Nurses

It included demographic variables consisting of four items i.e., age, gender, marital status, professional qualification, and years of clinical experience.

Section II: Perceived Nurses Stress Scale⁷

It consists of 10 items. The items in this scale were about feelings and thoughts the respondents had during the last month before the time of study. Here respondents were asked how often they felt a certain way.

0 = Never, 1 = Almost never, 2 = Sometimes, 3 = Fairly often, and 4 = Very often.

PSS (perceived stress scale) scoring was done by reversing responses (i.e., 0 = 4, 1 = 3, 2 = 2, 3 = 1, and 4 = 0) to the four positively mentioned items (items 4, 5, 7, and 8)⁷ and then calculating the sum. The study subjects were asked to rate their thoughts and feelings experienced during the past month. Each item to be answered by the nurses on a five-point scale ranged from never (0) to very often (4). Thus, the score of each participant ranged from 0 to 40. PSS Score between 0-13 means low stress, 14-26 implies moderate stress, and 27 or above indicated severe stress.

Section III: Standard Brief Cope Scale⁸ for ICU Nurses in response to Stress

The responses varied from 1 = I usually don't do this at all to 4 = I usually do this a lot.

- Avoidant Coping includes subscales of denial, substance use, venting, behavioural disengagement, self-distraction and self-blame. Avoidant Coping is associated with poor physical health and is directly proportional to stress level
- Approach Coping has subscales of active coping, positive reframing, planning, acceptance, seeking emotional support, and seeking informational support. It is related to adaptive practical adjustment, better physical health outcomes and more stable emotional responses. Approach coping is inversely proportional to stress level

Results

The findings of the present study indicate that out of 50 ICU nurses, majority (23, 46%) belonged to the age group

of 20-29 years, 2 (44%) belonged to 30-39 years of age, and only 5 (10%) belonged to 40-50 years of age. Majority of subjects were females (82%), and only 18% were males. 76% of the ICU nurses were married, and 24% were unmarried. 66% of the respondents had a professional qualification of BSc Nursing, 18% had a qualification of GNM, 10% were Masters in Nursing and only 6% had a qualification of Post Basic BSc Nursing. 62% of the respondents had a clinical experience of 2-10 years, 32% had a clinical experience of 11-20 years, only 6% were experienced with 21-30 years in the clinical field (Table 1).

Table 1. Sociodemographic Distribution of ICU Nurses

Demographic Variables		Frequency (f)	Percentage (%)
Age (years)	20-29	23	46.0
	30-39	22	44.0
	40-50	5	10.0
	Total	50	100.0
Gender	Male	9	18.0
	Female	41	82.0
	Total	50	100.0
Marital status	Married	38	76.0
	Unmarried	12	24.0
	Total	50	100.0
Professional qualification	GNM	9	18.0
	BSc Nursing	33	66.0
	Post Basic BSc Nursing	3	6.0
	MSc Nursing	5	10.0
	Total	50	100.0
Clinical experience of ICU nurses (years)	2-10	31	62.0
	11-20	16	32.0
	21-30	3	6.0
	Total	50	100.0

Table 1 shows that majority (46%) of the participants belonged to the age group of 20-29 years, 82% were females, 76% were married, 66% held a degree of BSc Nursing, and 62% had a clinical experience of 2-10 years. Out of 50 respondents, 27 (54%) had high level of stress, 21 (42%) had moderate level of stress, and only 2 (4%) had low level of stress (Table 2). The mean \pm SD of stress level of the participants was 25.94 ± 0.254 .

The findings of the present study showed that 18 (36%)

subjects were using Avoidant type of coping strategy, and 13 (26%) were using Approach coping. All the participants (50, 100%) used religion at the peak level as a coping strategy and only 11 (22%) used humour as a coping strategy. A significant association was found between the stress level of ICU Nurses and age ($p = 0.04$) and between the stress level of ICU Nurses and clinical experience ($p = 0.03$), but there was no significant association between stress level and demographic variables such as gender, marital status, professional qualification.

Table 2. Frequency and Percentage Distribution of Stress Level of ICU Nurses

Level of Stress	Frequency (f)	Percentage (%)
Low	2	4.0
Moderate	21	42.0
High	27	54.0
Total	50	100.0

Table 3. Frequency and Percentage Distribution of Coping Strategies of ICU Nurses

Coping Strategy	Category	Frequency (f)	Percentage (%)
Avoidant	Low	9	18.0
	Moderate	23	46.0
	High	18	36.0
	Total	50	100.0
Approach	Low	8	16.0
	Moderate	29	58.0
	High	13	26.0
	Total	50	100.0
Religion	Low	0	0.0
	Moderate	0	0.0
	High	50	100.0
	Total	50	100.0
Humour	Low	21	42.0
	Moderate	18	36.0
	High	11	22.0
	Total	50	100.0

As shown in Table 2 majority (54%) of the ICU Nurses had high level of stress. Table 3 shows that religion was used as a coping strategy at the peak level.

Table 4 indicates that there is a negative correlation (Karl Pearson's coefficient -0.068) between stress and Approach coping strategies, significant at $p < 0.05$.

Table 4. Correlation of Stress level and Approach Coping Strategies of ICU Nurses

Item	Mean	SD	r/ r ² ₊	DF	P value	Result
Perceived Stress	25.94	0.254	-0.068/ 0.28	48	< 0.05	Significant
Approach coping strategy	28.22					

n = 50

Table 5. Correlation of Stress Level and Avoidant Coping Strategies of ICU Nurses

Item	Mean	SD	r/r ²	DF	P value	Result
Perceived stress	25.94	0.254	0.53/0.28	48	< 0.01	Significant
Avoidant coping strategy	24.94					

n = 50

Table 5 depicts that there is a positive correlation (Karl Pearson's coefficient 0.53) between stress and Avoidant coping strategies. It is significant at $p < 0.01$.

Discussion

The results of the present study showed that majority of the ICU nurses (23, 46%) belonged to the age group of 20-29 years, 66% were females, and maximum had a qualification of BSc Nursing. These findings are supported by a study on the prevalence of stress and coping mechanism among staff nurses of intensive care units in Square Hospital Bangladesh conducted by Kibria M⁹ in which the majority of the participants belonged to the age group of 26-30 years and 92% of the study subjects were females.

The present study also agrees with the findings obtained by Alharbi H and Alshehryb A¹⁰ in 2019 who conducted a similar study that showed that majority of the ICU Nurses had moderate stress and the most common coping strategy used was belief in religion while the least one was the use of substances. In another study conducted by Younes S and Shalaby S¹¹ in 2014 in Egypt, it was found that the ICU Nurses had stress due to workload, problems related to supervisors, and in dealing with patients and their families. Pawar N¹² in 2014, studied the level of stress among the nurses working in intensive care units in selected hospitals of Navi Mumbai. The study found that 23 (42%) participants were undergoing severe stress.

The findings of the present study show that there is a significant relationship between the level of stress and demographic variables such as age, years of experience, and educational qualification and there was a significant association between Approach coping strategies and demographic variables such as gender ($p = 0.052$), professional qualification ($p = 0.01$) with Avoidant coping, and clinical experience ($p = 0.006$) with Avoidant coping. There was no significant association between Approach and

Avoidant coping Strategies and demographic variables like age and marital status. The findings are comparable with the study conducted by Jose T and Bhat S¹³ in 2013 in selected hospitals of Udupi and Mangalore districts, Karnataka, India. Low stress was experienced by majority of the study subjects (60.38%) in this study. Stress and professional qualification, marital status, and area of work showed a significant association, but no significant association was found between coping and other demographic variables.

Shiji, Sequera & Mathew¹⁴ in 2016, studied stress and coping among married staff nurses. The findings showed that 75% of the participants exhibited moderate stress. and moderate-level coping strategies were used by majority (80%) of the married staff nurses. There was a significant negative association between stress and coping strategies.

Conclusion

The study concludes that ICU Nurses have high level of stress and majority of them use Avoidant type of coping strategies, so there is a need to make them aware of the adverse consequences of high-stress levels and of the various approaches helpful in reducing stress. There is also a need to train the nurses to use Approach coping strategies to manage stress.

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