

Assessment of Pre-Existing Knowledge of Stress Management Techniques Among Healthcare Workers

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ABSTRACT

Introduction: Workplace stress is a major concern among healthcare workers particularly nurses, doctors due to heavy workload, emotional demands, and workplace conflicts. Knowledge of effective stress reduction techniques are essential to improve well-being and job performance.

Methods: A quantitative pre-experimental study was conducted among 60 healthcare workers in a selected hospital of Kangra, Himachal Pradesh, using purposive sampling. Data were collected through a self-structured 30-item questionnaire assessing knowledge on stress reduction techniques.

Results: Total 96.7% had moderate knowledge and 3.3% had inadequate knowledge about Stress Management Techniques. The mean score increased from 15.08 to 22.42, with no significant association between knowledge and demographic variables.

Discussion: The findings reveal that participants demonstrated inadequate knowledge regarding stress management techniques. Moreover, further research is required to explore and determine the underlying factors influencing knowledge levels related to stress management techniques among healthcare professionals.

Keywords: Stress, mental health, stress management technique

INTRODUCTION

Psychological well-being is an essential factor influencing both professional performance and personal life. Psychological well-being includes purpose in life, positive interpersonal relationships, personal development, self-acceptance, autonomy, and the ability to manage one's environment effectively. Continuous exposure to adverse life events and demanding work environments can negatively affect mental health. In today's competitive environment, achieving professional goals while managing stress is essential for long-term success and life satisfaction.

Stress refers to the psychological and physiological reactions that occur when individuals perceive challenges or threats, whether short-term or ongoing. Workplace stress arises when job demands exceed a person's abilities, skills, or expectations. Although stress is prevalent in many professions, it is particularly pronounced in healthcare fields that require advanced skills, constant vigilance, teamwork, and ongoing patient care, exposing professionals to substantial physical and emotional demands that heighten occupational stress.¹

Health care professionals frequently encounter stressors such as heavy workload,

patient suffering, death, and unclear roles, which may lead to exhaustion, reduced job satisfaction, and intentions to leave the profession.²

Impact of stress on health care professionals

Exposure to work-related stressors such as long hours and job strain has negative effects on physical and mental health. Major causes of morbidity, including cardiovascular disease, diabetes, and depression, have been linked with work stress across multiple demographic groups, and it has been estimated that employees with work stress suffer, on average, a 50% excess risk of coronary heart disease.³

The mental health specialists emphasize that High job demands place sustained strain on individuals, increasing the risk of emotional distress and mental health problems. Global health authorities like the WHO have also identified occupational stress as a major contributor to serious psychological disorders among working populations.⁴

Since healthcare professional deal with critical situations in difficult environment thus has become a characteristic of their occupation, this gives rise to task characteristics. Healthcare professionals usually develop an anxiety that could affect their positive attitudes towards their patients, resulting in poor care and social factors usually arise from environment of multidisciplinary teams, where one part of the team feels superior to the other or differences arising from one healthcare professional feeling that his or her role is more important than the other in the survival of their organization such differences may contribute to stress.⁵ Although short-term stress can often be managed effectively, continuous exposure to chronic stress results in persistent physiological and psychological alterations.

Studies on Knowledge of Stress Management Techniques Among Healthcare Workers.

Several studies have reported a knowledge gap among healthcare workers regarding stress management techniques. Here, reporting some of the studies on the emerging need to know stress management techniques among health care workers.

A researcher Chatterjee Supantha et al. conducted a cross-sectional study to assess stress among 257 doctors at a medical college and Sagore Dutta Hospital, Kamarhati, India using a semi-structured self-administered questionnaire. The study concluded that doctors experiencing high stress require counselling and regular psychological support to manage their stress effectively.⁶

Another study was conducted by Manwatkar Sushma et al. at a selected hospital in Nagpur to evaluate the effectiveness of a self-instructional module on stress management among 60 staff nurses. The pre-test results showed most nurses had good or satisfactory knowledge, with a mean score of 13.28. After the intervention, knowledge levels improved significantly, with the majority achieving very good scores and the mean increasing to 20.86. The study emphasizes impact of training on stress reduction techniques.⁷

Kane Pratibha P. et al in year 2009 conducted a study by using a standardised questionnaire, to evaluate occupational stress and associated psychosomatic issues in 106 nurses. The main stressor reported were workload, interactions at work, job satisfaction, and home-related issues were among the stressors. Staff shortages, overtime, family disputes, and low pay were common causes of stress. The author also reported that a lot of nurses were under moderate stress.⁸

Dagget Tadesse, Molla Ashagre, et al. (2016) conducted a cross-sectional study to assess the prevalence and sources of stress among nurses in public hospitals of Jimma Zone, South-West Ethiopia. The researchers reported the average stress score to a moderate to high level of work-related stress among nurses. As part of their job profile, dealing with death and dying was identified as the most stressful factor, followed by

uncertainty in patient care and heavy workload. Workplace sexual harassment also contributed significantly to stress.⁹

A cross-sectional study from Iran was conducted by Latifdeh Shila and Zrean Kourosh in 2015 with the aim to investigate occupational stress among 175 ICU nurses in an educational hospital in Ahwaz, Iran. They found that 50.5% of nurses experienced high stress, 41.6% moderate stress, and 7.9% low stress. Significant associations were identified between stress and factors such as shift patterns, managerial support, heavy workload, complex equipment use, unclear job roles, patient death, painful procedures, and teamwork challenges. The study very well established that nurse's job profile causes stress and health problems.¹⁰

Need for a study on the pre-existing knowledge of Stress Management Techniques.

The health care workers are frontline workers in any health institution; they are working in a difficult environment, odd shifts, long hours, and are overburdened due to a shortage of staffing. Understanding the reasons for stress reasons, the level of stress, and understating the need to be aware regarding stress management techniques is important. However, health care workers often carry the greatest burden because they spend the most time in direct patient care. Around the world, studies continue to show that nursing is emotionally and physically demanding. Sometimes stress can motivate individuals when they see challenges as opportunities to grow. This study aims to explore pre-existing knowledge of stress management techniques among health care workers to prepare strategies to cope up with stress. For many years, research has confirmed that stress is deeply rooted in nursing practice. With worsening working conditions and ongoing staff shortages, it is important for health care leaders to take this issue seriously and promote practical stress management strategies.

METHODOLOGY

The quantitative research approach was used to assess the knowledge of health care workers regarding stress reduction techniques. The study was conducted at a multispecialty corporate hospital in Kangra, Himachal Pradesh. The total enumeration sampling technique was used, and 60 health care workers were enrolled in the study after carefully implementing the inclusion and exclusion criteria. Prior permission and informed consent were obtained. The semi-structured questionnaire was used to collect information from study participants.

The research Tool:

A self-structured questionnaire was prepared after an extensive literature review, development of a conceptual framework, consultation with experts, and preparation of a final draft. The researcher ensured equal weightage of all items regarding the assessment of their knowledge and demographic profile. The tool consisted of two sections. Section A included socio-demographic details such as age, education, occupation, family type, socioeconomic status, and prior knowledge. Section B contained 30 knowledge-based questions. Each correct answer scored one mark, with scores categorized into three knowledge levels.

RESULTS

The findings describe the distribution of health care workers based on selected demographic characteristics such as age, family type, education, occupation, income, and prior knowledge of stress reduction techniques. Most participants, 26 (43.3%), were aged 25-27 years, followed by 23 (38.3%) in the 28-30 age group, 10 (16.7%) between 31-33 years, and only 1(1.7%) between 34–36 years. Regarding family structure, 33 (55%) belonged to nuclear families, while 27 (45%) were from joint families.

The majority, 44 (73.3%), were nurses. Most participants earned INR 20,000–30,000 monthly. Additionally, 41 (68.3%) reported

having prior knowledge of stress reduction techniques.

Table -1 Frequency, Percentage distribution and mean of health care workers knowledge level. (n-60)

Level of Knowledge	Pre-Existing Knowledge		
	Frequency	Percentage (%)	Mean
Inadequate Knowledge	2	3.3%	15.08
Moderate Knowledge	58	96.7%	
Adequate Knowledge	0	0%	

Table 1 describe the pre-existing knowledge study participants regarding stress management techniques. The majority of participants (96.7%) demonstrated moderate knowledge, while 3.3% had inadequate knowledge, and none showed adequate understanding.

Table:2 Association of Pre-Existing Knowledge Scores with Selected Socio-Demographic Variables.

Association of Pre-Existing Knowledge Scores with Selected Socio-Demographic Variables.									
Variables	Opts	ADEQUATE KNOWLEDGE	MODERATE KNOWLEDGE	INADEQUATE KNOWLEDGE	Chi Test	P Value	df	Table Value	Result
	b)28-30yrs	0	21	2					
	c)31-33yrs	0	10	0					
	d)34-36yrs	0	1	0					
Type of Family	Nuclear	0	31	2	1.693 [#]	0.193	1	3.841	#
	Joint	0	27	0					
Educational Status	GNM	0	9	0	3.328 [#]	0.504	4	9.488	#
	B.sc Nursing	0	21	2					
	Post Basic B.sc Nursing	0	14	0					
	MBBS	0	4	0					
	Others	0	10	0					
Occupational Status	Doctor	0	4	0	0.752 [#]	0.686	2	5.991	#
	Nurse	0	42	2					
	Others	0	12	0					
Socio-Economic Status	INR 80,000 – 1,20,000 / month	0	4	0	0.887 [#]	0.642	2	5.991	#
	INR 40,000 – 60,000 / month	0	13	1					
	INR 20,000 – 30,000 / month	0	41	1					
Previous Knowledge	Yes	0	41	0	4.465 [*]	0.035	1	3.841	*
	No	0	17	2					

(* – Significant, (#)– Not Significant. df= degree of freedom.

The chi square values indicate that the demographic variables such as (Age in years ($X^2 = 3.328$, $df = 3$), type of family ($X^2 = 1.693$, $df = 1$), educational status ($X^2 = 3.328$, $df = 4$), occupational status ($X^2 = 0.752$, $df = 2$), socioeconomic status ($X^2 = 0.887$, $df = 2$))

shows no significant association with the pre-existing level of knowledge.

DISCUSSION

Working in a hospital with patients' care is a physically and emotionally challenging

work, especially during shift duties, odd hours, and with low staffing. Health care professionals often face limited resources, staff shortages, infection risks, and the emotional strain of caring for ill patients.¹¹ Alongside professional pressures, personal life stressors further increase their vulnerability to stress-related health consequences.¹²

Similar results were assessed by a study by Kober M. (2024), who conducted a qualitative study where he interviewed 27 healthcare professionals representing different specialties. The results revealed that many participants were facing significant stress and symptoms of burnout. These challenges were found to adversely affect their psychological well-being, job performance, interactions with colleagues, and the overall standard of care provided to patients.¹³

With the objective to finding the need of stress management among health care workers, a study conducted by Zewdie Birhanu et al in 2026 and found that 53% of healthcare workers experienced stress (25% low, 16% moderate, 12% severe). Stress was significantly associated with education, facility type, and income ($p < 0.05$). Females and workers aged 30–39 and 50–59 reported lower stress odds. The findings highlight the need for targeted stress management and resilience programs to improve healthcare settings in Ethiopia and highlight importance to understand pre-existing knowledge of healthcare workers regarding stress management techniques.¹⁴

A study from India conducted by Adsul NB et al in 2022 among nurses in Pune hospitals revealed that most participants had a moderate understanding of stress-relieving techniques (68%), while 20% demonstrated good knowledge and 12% had limited awareness, with no significant association found between knowledge levels and demographic variables, highlighting the need to further strengthen nurses' understanding of stress management strategies to improve their mental well-being and overall professional effectiveness.¹⁵

A Summative Content Analysis conducted by Lesley C Rink reported high levels of stress and burnout, among healthcare professionals, affecting care quality. To better understand this issue beyond specific settings or the pandemic context, a U.S. study surveyed 2,310 workers between 2018 and 2019 about their main recent stressors. Analysis showed stress arose from workplace factors (49%), personal issues (32%), and overlapping work–life pressures (19%), emphasizing the need to address multiple stress sources in research and practice.¹⁶

The present study shows that the baseline knowledge revealed that most participants (96.7%) had an average level of understanding, 3.3% displayed insufficient knowledge, and no participant achieved a satisfactory level of comprehension. This shows a need to create awareness about need to learn coping strategies to manage stress.

CONCLUSION

Managing stress is essential for healthcare workers because elevated stress levels can impair judgment, decrease work efficiency, and increase the likelihood of mistakes. When individuals feel persistently overwhelmed or anxious, higher-order cognitive functions such as reasoning, critical thinking, and problem-solving become less effective. Prolonged stress activates the body's stress response system, leading to physical and psychological symptoms that interfere with clear thinking. In such states, rational analysis and balanced decision-making are compromised. Since healthcare roles demand accuracy, quick thinking, and sound clinical judgment, maintaining controlled stress levels is vital to ensure patient safety, professional competence, and overall quality of care.

Declaration by Authors

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