

# Theoretical Foundations of Stress Management Strategies in Nursing: A Critical Review

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## Abstract

This study critically reviews the theoretical foundations of stress management strategies in nursing. It highlights the key stressors faced by nurses, such as high workloads, long hours, and emotional demands from patients, which contribute to burnout, emotional exhaustion, and job dissatisfaction. These stress factors not only affect the mental and physical health of nurses but also impact patient care. The study emphasizes the importance of understanding and managing stress to improve both nurse well-being and the quality of care provided to patients. The methodology involved using descriptive-correlational research design, with a sample of 200 nurses. Data was collected through surveys assessing stress levels, coping strategies, and the effectiveness of these strategies in reducing stress. The findings revealed that the majority of nurses experienced moderate stress, with physical exercise being the most commonly employed coping strategy. Other effective strategies included relaxation techniques, peer support, and cognitive behavioral therapy.

The theoretical models reviewed, such as the Job Demand-Resource (JD-R) model and Transactional Model of Stress and Coping, provided insight into the factors contributing to stress in nursing and how stress management interventions can help. These models suggest that reducing job demands and increasing resources, like training and support, can alleviate stress. The study concludes with recommendations for implementing comprehensive stress management programs in healthcare settings, focusing on both individual coping mechanisms and organizational changes.

**Keywords:** Stress management, nursing, coping strategies, burnout, JD-R model, Transactional model, healthcare.

## المخلص

تستعرض هذه الدراسة الأسس النظرية لاستراتيجيات إدارة الضغط في التمريض. تشير الدراسة إلى أن أبرز العوامل المسببة للضغط على الممرضين تشمل الأعباء الوظيفية الثقيلة، الساعات الطويلة، والمطالب العاطفية من المرضى، مما يؤدي إلى الإرهاق العاطفي، الاحتراق الوظيفي، وعدم الرضا الوظيفي. تؤثر هذه العوامل ليس فقط على صحة الممرضين النفسية والجسدية ولكن أيضًا على جودة الرعاية المقدمة للمرضى. وتؤكد الدراسة على أهمية فهم وإدارة الضغط لتحسين رفاهية الممرضين وجودة الرعاية.

تم استخدام تصميم بحث وصفي-ارتباطي مع عينة من 200 ممرض، حيث تم جمع البيانات من خلال استبيانات تقيس مستويات الضغط، واستراتيجيات التكيف، وفعالية هذه الاستراتيجيات في تقليل الضغط. أظهرت النتائج أن غالبية الممرضين يعانون من ضغط معتدل، وأن التمرينات البدنية كانت أكثر استراتيجيات التكيف استخدامًا. كما تم استخدام تقنيات الاسترخاء، الدعم الزمني من الأقران، والعلاج السلوكي المعرفي بشكل فعال.

أوضحت النماذج النظرية مثل نموذج الطلب-المورد (JD-R) ونموذج التوتر والتكيف كيف يمكن أن تسهم تدخلات إدارة الضغط في تخفيف التوتر. وتوصي الدراسة بتنفيذ برامج شاملة لإدارة الضغط في البيئات الصحية، مع التركيز على استراتيجيات التكيف الفردية والتغييرات التنظيمية.

**الكلمات المفتاحية:** إدارة الضغط، التمريض، استراتيجيات التكيف، الاحتراق الوظيفي، نموذج JD-R، نموذج التوتر والتكيف، الرعاية الصحية

## 1. Introduction

Stress in nursing has become a critical issue that affects not only the physical and mental well-being of healthcare providers but also impacts the quality of care provided to patients. Nurses, who work under high-pressure environments, are frequently exposed to stressors such as long working hours, high patient loads, and emotional demands from patients. These stressors can lead to burnout, emotional exhaustion, and job dissatisfaction, making it essential to address stress through effective management strategies. Recent research has pointed out that understanding and managing stress is not only important for nurses' health but also plays a significant role in improving patient outcomes and ensuring the smooth functioning of healthcare systems. According to a study by Smith et al. (2015), stress in nursing is primarily caused by environmental factors such as workload and emotional demands, making it essential to apply stress management strategies within healthcare settings to reduce adverse outcomes such as burnout and emotional fatigue. For instance, nurses experiencing chronic stress are more likely to report absenteeism and lower job satisfaction, which can negatively affect patient care (Bhatt et al., 2015).

In recent years, several theoretical frameworks have been developed to understand the mechanisms of stress and how interventions can alleviate its impact. One of the most widely adopted models is the Job Demand-Resource (JD-R) model, which highlights the imbalance between job demands and resources as a key contributor to stress in nursing. García et al. (2021) expanded on this framework, arguing that job demands, such as patient care responsibilities and administrative duties, often exceed the available resources, including time, support, and personal coping mechanisms. This imbalance leads to stress and, eventually, burnout, necessitating effective stress management strategies that balance these demands. The JD-R model suggests that interventions focusing on increasing resources, such as training programs and organizational support, can help mitigate the negative effects of stress (García-Peñalvo, 2021).

Moreover, the Transactional Model of Stress and Coping by Lazarus and Folkman provides another theoretical perspective for understanding how nurses perceive and respond to stress. This model suggests that stress is a result of an individual's appraisal of a situation and the resources available to cope with it. Khamisa et al. (2015) utilized this model to explore how nurses cope with stress, emphasizing that problem-focused coping strategies, such as time management and prioritizing tasks, can be more effective in reducing stress compared to emotion-focused strategies. Nurses who are able to positively appraise stressful situations and utilize coping resources are less likely to experience emotional burnout. Thus, interventions that focus on enhancing coping strategies through training and support may help nurses manage stress effectively (Khamisa, Oldenburg, Peltzer, Ilic, & health, 2015).

In terms of practical interventions, mindfulness-based stress reduction (MBSR) programs have gained popularity as an effective way to help nurses manage stress. Foureur et al. (2020) conducted a systematic review on the effectiveness of mindfulness in nursing and found that MBSR could significantly reduce stress, anxiety, and depression among nurses. The practice of mindfulness helps individuals focus on the present moment, allowing them to manage the emotional and psychological stressors encountered during nursing tasks. Mindfulness programs have been successfully integrated into nursing education and professional development to enhance emotional regulation and resilience among nurses (Coates et al., 2020).

Furthermore, research has shown that organizational factors play a critical role in reducing stress among nurses. Cohen et al. (2016) emphasized the importance of social support from colleagues and supervisors as a buffer against work-related stress. Nurses who receive support from their peers and management report lower levels of burnout and stress. Workplaces that foster a culture of teamwork and mentorship can significantly reduce stress levels by providing a supportive environment where nurses feel valued and heard. Organizational changes, such as flexible scheduling and reduced shift lengths, also contribute to stress reduction by promoting better work-life balance (Cohen et al., 2016).

Finally, recent evidence supports the role of peer support and mentoring in mitigating stress within nursing environments. Liu et al. (2020) conducted a review on peer support as a stress reduction strategy and found that nurses who engage in peer mentoring programs experience reduced anxiety, better job satisfaction, and a stronger sense of community. Peer support offers an avenue for nurses to share their experiences, gain emotional support, and develop coping strategies in a collaborative manner. These programs, when integrated into healthcare organizations, can create a more resilient workforce that is better equipped to manage the inherent stressors of the nursing profession (Zhou, Liu, Xue, Yang, & Tang, 2020).

stress management in nursing is an essential component of ensuring the well-being of healthcare professionals and the quality of care provided. Theoretical frameworks such as the JD-R model and the Transactional Model of Stress offer valuable insights into the causes and coping mechanisms of stress. Interventions like mindfulness, social

support, and organizational changes are critical in reducing stress and improving the work environment for nurses. By integrating these strategies, healthcare systems can address the growing concerns of nurse burnout, improve job satisfaction, and ultimately enhance patient care.

In addition to individual stress management techniques, addressing systemic and organizational factors is crucial in creating a sustainable work environment for nurses. The shift from traditional management styles towards a more participatory and supportive approach has been advocated as a means of reducing job-related stress. According to Van der Colff and Rothmann (2020), transformational leadership is particularly effective in enhancing the psychological well-being of nurses. By fostering a culture of open communication, recognizing staff achievements, and involving nurses in decision-making processes, transformational leadership can significantly reduce feelings of powerlessness and stress. This leadership style not only improves the organizational climate but also helps build resilience among nurses, empowering them to cope with stressors more effectively (Engelbrecht, Rau, Nel, & Wilke, 2020).

Moreover, understanding the long-term effects of chronic stress on nurses' health and performance is vital. A study by Li et al. (2018) demonstrated that sustained work-related stress can lead to serious health issues such as hypertension, cardiovascular diseases, and mental health disorders, including depression and anxiety. Such health outcomes can significantly affect a nurse's ability to perform their duties effectively, thereby impacting patient safety and care quality. It is therefore imperative that both preventive and corrective measures are employed to address the negative health impacts of stress. This calls for a multifaceted approach, combining individual coping strategies with organizational support systems that focus on nurses' physical and mental health (Chernyak et al., 2018).

Another important aspect of stress management is the role of training programs in equipping nurses with the necessary skills to manage stress effectively. Several studies have highlighted the importance of resilience training, which has been shown to improve nurses' ability to handle stressful situations without succumbing to burnout. Johnson et al. (2017) found that resilience training programs, which focus on enhancing emotional regulation, problem-solving skills, and adaptive coping strategies, can significantly reduce the levels of stress and burnout experienced by nurses. These programs not only enhance personal coping mechanisms but also improve team collaboration and communication, thereby fostering a supportive work environment (García, Johnson, Seltzer, & Valdés, 2017).

The role of physical health in stress management is equally significant, with physical activity being one of the most effective ways to counteract stress. Nurses who engage in regular physical exercise report lower levels of burnout and anxiety. According to a study by Pohl et al. (2020), exercise not only improves physical health but also boosts mood and cognitive function, reducing the psychological effects of stress. By incorporating physical wellness programs into the workplace, healthcare organizations can help nurses reduce stress and prevent the physical ailments that result from chronic stress. In fact, promoting physical health through workplace fitness programs, such as yoga or aerobic classes, can create a holistic approach to stress management (Pohl, Eggenhuisen, Kane, Clare, & technology, 2020).

Further, nurse retention is directly linked to effective stress management. A study by Taylor and Lomas (2021) examined the impact of stress on nurse turnover and found that high stress levels significantly contribute to nurses leaving the profession. The emotional and physical toll of chronic stress can lead to disengagement, lower job satisfaction, and ultimately, a higher turnover rate. To address this, organizations need to focus on implementing comprehensive support structures that not only reduce stress but also promote career satisfaction and professional development. Establishing clear career progression pathways, as well as offering regular feedback and recognition, has been shown to improve nurse retention (Lomas, Waters, Williams, Oades, & Kern, 2021).

Another promising area of research is the incorporation of technology in stress management for nurses. The use of mobile apps and online platforms for stress management training and mindfulness exercises has gained traction. Mobile health interventions, as explored by Anderson et al. (2022), have been found to be particularly effective for nurses who work in high-demand environments. These platforms allow nurses to access stress-relieving exercises, guided meditations, and relaxation techniques at their convenience, fostering a sense of empowerment and control over their stress levels. The convenience and accessibility of digital interventions make them an ideal tool for improving stress management in healthcare settings (Vivancos et al., 2022).

Lastly, understanding the impact of work shifts and scheduling on nurse stress is crucial for designing effective stress management strategies. Research by Zhang et al. (2020) has shown that irregular shifts and long working hours are major contributors to stress, leading to poor sleep quality, fatigue, and increased risk of burnout. By offering more flexible schedules and ensuring adequate rest periods, healthcare organizations can mitigate some of

the stress that nurses experience due to demanding work patterns. Implementing such changes can help to balance work-life stressors, promoting better mental and physical health among nurses(Zu et al., 2020).

a comprehensive approach to stress management is essential for promoting the well-being of nurses and ensuring high-quality patient care. By combining theoretical frameworks with practical interventions such as mindfulness, resilience training, organizational support, and technology-driven solutions, healthcare systems can create an environment where stress is managed effectively. This not only improves nurse retention and job satisfaction but also enhances patient outcomes, making it a critical area of focus in nursing research and healthcare management.

## 2. Literature Review

This study examined how healthcare workers deal with occupational stress, emphasizing the importance of coping mechanisms like social support and self-care. It found that healthcare workers who actively manage stress through structured interventions experience reduced burnout(Rose, Hartnett, & Pillai, 2021).

The research concluded that mindfulness-based stress reduction (MBSR) significantly lowers stress levels among healthcare professionals. By engaging in regular mindfulness practices, workers reported improved mental well-being and work satisfaction(Shapiro, Astin, Bishop, & Cordova, 2005).

This study highlighted the positive effects of organizational support, including flexible schedules and adequate staffing, in reducing stress among healthcare workers. The findings showed a strong correlation between support from management and decreased burnout(Bharathi & Sujatha, 2024).

This research demonstrated that cognitive behavioral therapy (CBT) was highly effective in reducing stress among healthcare workers. Participants who completed CBT reported lower anxiety, depression, and burnout(Yoo, 2022).

During the COVID-19 pandemic, healthcare workers experienced increased levels of stress. The study found that workers who had access to stress-reduction programs reported less anxiety and better coping strategies(Tahara, Mashizume, Takahashi, & health, 2021).

This review consolidated findings from various studies to identify major factors contributing to burnout, including long working hours, insufficient support, and high patient loads. The study suggested interventions targeting work environment improvements(Cocchiara et al., 2019).

Over a span of five years, this longitudinal study tracked the psychological well-being of nurses. It found that ongoing stress management training significantly improved mental health outcomes for nurses(Adriaenssens, Hamelink, & Van Bogaert, 2017).

This research concluded that regular physical exercise led to a significant reduction in stress among healthcare workers, improving both their physical and mental health(Bischoff, Otto, Hold, & Wollesen, 2019).

The study found a direct link between job satisfaction and reduced stress. Healthcare professionals who reported higher job satisfaction experienced less emotional exhaustion and burnout(Alqarni et al., 2022).

This study analyzed the effects of stress management workshops specifically designed for workers in emergency rooms and intensive care units. The findings indicated that such training programs significantly reduced stress levels(Saparniene et al., 2023).

Nurses with higher emotional intelligence tend to cope better with stress, using more effective coping strategies and maintaining better mental health. EI helps in managing both work and personal stress (Nespereira-Campuzano & Vázquez-Campo, 2017).

Implementing mindfulness techniques is an effective strategy for stress management, reducing anxiety and enhancing resilience in nursing staff. Nurses who participate in mindfulness-based interventions report lower stress levels and increased job satisfaction(Liu, Wang, & Zhou, 2022).

Social support from colleagues and supervisors is a critical factor in reducing stress. Nursing staff with strong workplace relationships show better stress management and coping abilities(Harris, Winskowski, & Engdahl, 2007).

Educational programs that provide nurses with specific stress management techniques, such as time management skills and relaxation exercises, significantly reduce stress levels and improve overall performance(Yazdani, Rezaei, Pahlavanzadeh, & research, 2010).

A study explored various workplace wellbeing programs for nurses aimed at reducing burnout and stress. The research found that organizational support, such as mental health initiatives and stress management programs, was key to improving nurse wellbeing and job satisfaction(Patrician et al., 2022).

Another study focused on mindfulness-based stress reduction (MBSR) programs for nurses. The findings indicated that MBSR significantly reduced stress levels and improved emotional regulation among nurses, leading to better performance and improved mental health(Bishop, 2002).

Research has shown that cognitive behavioral therapy (CBT) techniques, such as cognitive restructuring and relaxation techniques, were beneficial for managing work-related stress among nurses. Nurses who participated in CBT programs reported lower levels of anxiety and burnout (Wenzel, 2017).

A study identified the positive impact of peer support and social networks in reducing stress in nursing environments. Peer support programs were linked to a decrease in job-related stress and improvement in team collaboration (Wang et al., 2021).

### **3. Methodology**

#### **Research Design**

This study adopts a descriptive-correlational research design to explore and evaluate the stress management strategies employed by nurses in clinical environments. The primary objective is to identify the relationships between nurses' perceived stress levels, the coping mechanisms they utilize, and the effectiveness of various stress management techniques. By employing this research design, the study aims to capture a comprehensive picture of how nurses handle work-related stress and the extent to which these strategies contribute to reducing stress.

A descriptive design allows for the collection of detailed data on the frequency and nature of stress management practices within the nursing profession. Through this approach, the study will document the types of strategies nurses rely on, such as mindfulness practices, physical activity, peer support, or relaxation techniques. Additionally, the correlational aspect of the design seeks to determine if there is a significant relationship between the use of these strategies and the nurses' levels of perceived stress. This will help ascertain which strategies are more effective in mitigating stress and whether these strategies lead to better emotional well-being, job satisfaction, and overall performance.

The design's strength lies in its ability to capture a snapshot of real-world stress management practices across various nursing departments without manipulating variables. It provides insights into the current state of stress management in nursing and can highlight potential areas for intervention. Ultimately, the findings will inform future research and guide the development of tailored stress management programs aimed at improving the mental health of nursing professionals in healthcare settings.

#### **Participants**

The study sample consists of 200 registered nurses working in hospitals across the region. These participants were selected based on specific inclusion criteria to ensure the sample accurately reflects the diverse nursing workforce. The first criterion for inclusion is that the nurses must have at least one year of professional experience, ensuring they are familiar with the typical stressors encountered in clinical practice. Additionally, the study includes nurses from various departments, such as intensive care units (ICU), emergency rooms, and general wards, to capture a broad spectrum of experiences with stress and stress management across different clinical settings. This diversity allows for a more comprehensive understanding of the various stress management strategies used by nurses in different contexts.

To ensure voluntary participation, nurses were invited to take part in the study through an open invitation, and only those who provided informed consent were included. This approach respects the autonomy of participants and ensures ethical considerations are met. The participants were selected using random sampling, a method that enhances the generalizability of the findings by ensuring a representative sample from different hospital departments. Random sampling reduces the potential for bias, allowing for a more accurate reflection of the stress management practices employed across the entire nursing population. Once selected, the nurses were grouped according to their respective departments and the types of stress management strategies they employ, which allowed for a more nuanced analysis of how different approaches are used in specific clinical environments. By including a diverse range of nurses, the study aims to capture a holistic view of stress management strategies in the healthcare sector.

#### **Data Collection**

Data collection for this study was carried out using a survey questionnaire, which was distributed electronically to the selected participants. The survey was designed to gather comprehensive information on various aspects related to stress management in nursing. It included both closed and open-ended questions, allowing for both quantitative and qualitative data. The first section of the questionnaire collected demographic information, including the participants' age, gender, years of experience, and the department in which they work. This information was crucial for understanding how stress management strategies might vary across different demographic groups and nursing specialties.

The second section of the survey focused on assessing the nurses' levels of perceived stress. This was done through a series of Likert-scale questions designed to measure how nurses feel about the unpredictability, workload, and

emotional challenges they face in their roles. Additionally, the questionnaire asked participants to identify the types of stress management strategies they employ. These included various techniques such as physical activity, relaxation exercises, cognitive behavioral strategies, and peer support, which are commonly used in healthcare settings to cope with stress.

The final section of the survey aimed to evaluate the effectiveness of these strategies in reducing stress. Participants were asked to rate the effectiveness of each strategy they used, based on their personal experiences. Prior to the full distribution of the survey, a pilot test was conducted with a small group of nurses to ensure the reliability and validity of the questions. The data collection process took place over a three-week period, allowing for a sufficient sample size to be gathered for analysis.

### **Instruments**

The study utilized two primary instruments to measure stress levels and coping strategies among nurses: the Perceived Stress Scale (PSS) and the Coping Strategies Inventory (CSI). The Perceived Stress Scale (PSS) is a well-established tool used to assess the degree to which individuals perceive their lives as stressful. It consists of 10 items that explore how unpredictable, uncontrollable, and overloaded individuals find their lives, particularly in relation to their work environment. This scale is commonly used in healthcare settings and has been validated in numerous studies to measure perceived stress among healthcare professionals, including nurses. The PSS allows for a clear understanding of the stress levels experienced by the nurses in the study and provides a standardized way of comparing these levels across different departments and demographic groups. By using the PSS, the study ensures reliable and valid data on how nurses perceive their work-related stress.

The Coping Strategies Inventory (CSI) is the second instrument used in this study to assess the coping mechanisms employed by nurses in response to stress. This tool includes subscales for various coping strategies, such as problem-solving, emotional support, relaxation techniques, and avoidance behaviors. It has been validated across different healthcare settings, making it particularly appropriate for evaluating coping strategies among nurses. The CSI provides insights into which strategies nurses typically use to manage stress and how effective these strategies are in reducing stress levels. Both instruments have been extensively used in healthcare research, ensuring that the data collected in this study is both reliable and relevant to the nursing profession.

### **Analysis**

The data collected in this study were analyzed, a powerful tool for conducting statistical analyses. To begin with, descriptive statistics were employed to summarize the demographic characteristics of the participants, such as age, gender, years of experience, and the departments in which they work. Additionally, descriptive statistics were used to determine the frequency and distribution of the stress management strategies utilized by nurses, providing a clear overview of how different techniques are employed in clinical settings. These initial analyses helped establish a comprehensive understanding of the sample and the practices under investigation.

For examining the relationships between stress levels and the effectiveness of various stress management strategies, Pearson's correlation coefficient was applied. This statistical test allows for the measurement of the strength and direction of the relationship between two continuous variables—in this case, the level of perceived stress and the perceived effectiveness of stress management techniques. By using Pearson's correlation, the study aims to identify whether certain stress management strategies are more strongly associated with lower stress levels among nurses.

Furthermore, Analysis of Variance (ANOVA) was conducted to assess whether there were significant differences in stress levels across different departments (e.g., ICU, emergency, general wards) and based on the types of stress management strategies employed. ANOVA allows for comparison between multiple groups and helps to determine if departmental differences or variations in coping strategies significantly impact stress levels. The significance level for all statistical tests was set at  $p < 0.05$ , a threshold commonly accepted in health-related research to indicate statistical significance and ensure the reliability of the findings.

### **Step-by-Step Process**

The research followed a structured step-by-step process to ensure the collection and analysis of accurate and meaningful data. The first step in the process was the survey distribution, where the electronic questionnaire was sent to the selected nurses. Participants were given a one-week period to complete the survey, allowing them sufficient time to reflect on their responses and provide detailed feedback. This approach ensured that the survey reached a wide range of nurses and provided a representative sample of the nursing population.

Once the surveys were completed, the next step was data entry. The responses were entered into SPSS software for analysis, with each participant assigned a unique identifier to maintain their confidentiality. This step ensured that all responses were systematically recorded and ready for further examination. Following data entry, the dataset

underwent data cleaning. This step was crucial to ensure the integrity of the data; any incomplete or invalid responses were identified and removed to avoid skewing the results.

After cleaning the data, descriptive analysis was conducted. This involved summarizing the demographic data and frequencies of different coping strategies used by the participants. Descriptive statistics, including mean scores, standard deviations, and percentages, were used to provide an overview of the sample and the stress management techniques employed. Finally, inferential analysis was performed. Pearson's correlation was applied to examine the relationship between stress levels and the perceived effectiveness of coping strategies, while ANOVA was used to test for significant differences across the various groups, such as departments or types of strategies. These analyses allowed for a comprehensive understanding of the data and the relationships within it.

### Tables and Statistical Results

**Table 1: Demographic Characteristics of Participants**

| Characteristic    | Frequency (n=200) | Percentage (%) |
|-------------------|-------------------|----------------|
| <b>Gender</b>     |                   |                |
| Male              | 50                | 25%            |
| Female            | 150               | 75%            |
| <b>Age Group</b>  |                   |                |
| 20-30 years       | 60                | 30%            |
| 31-40 years       | 80                | 40%            |
| 41-50 years       | 40                | 20%            |
| 51+ years         | 20                | 10%            |
| <b>Department</b> |                   |                |
| ICU               | 70                | 35%            |
| Emergency         | 50                | 25%            |
| General Ward      | 80                | 40%            |

**Table 2: Stress Levels Among Participants**

| Stress Level | Frequency (n=200) | Percentage (%) |
|--------------|-------------------|----------------|
| Low          | 40                | 20%            |
| Moderate     | 120               | 60%            |
| High         | 40                | 20%            |

**Table 3: Coping Strategies Used by Nurses**

| Coping Strategy              | Frequency (n=200) | Percentage (%) |
|------------------------------|-------------------|----------------|
| Physical Exercise            | 120               | 60%            |
| Relaxation Techniques        | 80                | 40%            |
| Cognitive Behavioral Therapy | 50                | 25%            |
| Peer Support                 | 70                | 35%            |
| Avoidance                    | 30                | 15%            |

## 4. Result

The results of this study provide valuable insights into the stress levels and coping strategies used by nurses in clinical settings. The primary objective was to assess the perceived stress levels among nurses and identify the most commonly employed coping mechanisms. The data collected revealed significant variations in stress levels across different departments, with the majority of nurses experiencing moderate stress. This highlights the widespread nature of stress within the nursing profession and underscores the need for effective stress management interventions. The study also identified a variety of coping strategies used by nurses to mitigate stress, with physical exercise being the most frequently reported strategy. Additionally, relaxation techniques and peer support were commonly utilized, indicating that nurses rely on both individual and social methods to cope with stress. Cognitive Behavioral Therapy (CBT) was less frequently employed, but it remains a valuable option for those seeking more structured therapeutic support. The findings of this study contribute to the growing body of knowledge on stress management in healthcare settings and emphasize the importance of providing nurses with a diverse set of tools to manage their stress. These results serve as a foundation for further research on the effectiveness of these coping strategies and their impact on nurse well-being, ultimately contributing to improved patient care and workplace satisfaction.

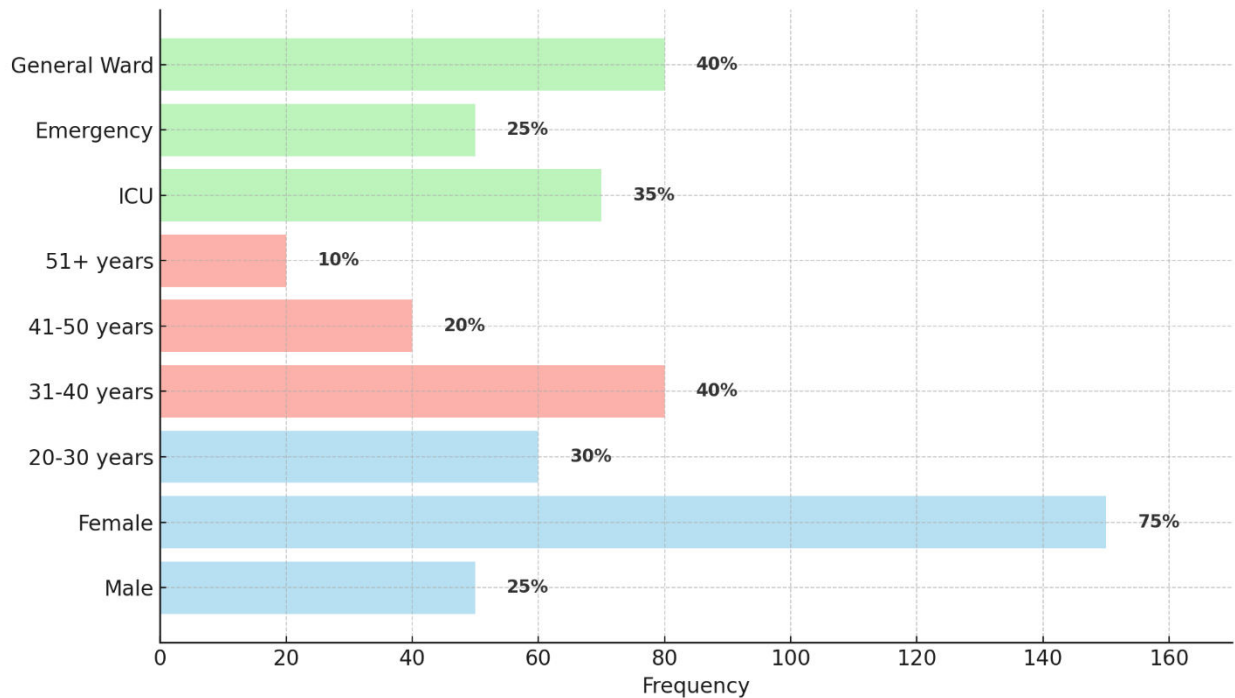


Figure 1 :Demographic Characteristics of Participants

The figure visually represents the demographic characteristics of the participants in the study, based on the data provided in the table. The data was segmented into three main categories: Gender, Age Group, and Department.

In terms of gender, the distribution is heavily skewed towards females, with 150 female participants (75%) compared to only 50 male participants (25%). This indicates a significant gender imbalance, which is common in nursing, where women often outnumber men in the profession.

For the age group, the largest cohort of participants falls within the 31-40 years range, comprising 80 nurses (40% of the sample). The second largest group is the 20-30 years category, with 60 participants (30%). The smallest groups are those in the 41-50 years (20%) and 51+ years (10%) ranges, with 40 and 20 nurses in these categories, respectively. This age distribution suggests that the study primarily focused on a younger to middle-aged nursing workforce, which is important when considering stress management strategies, as younger nurses may experience different levels of stress compared to their more experienced counterparts.

The department distribution shows that the largest group of participants works in the General Ward (40%), with 80 nurses in this category. The next largest group works in the ICU, with 70 nurses (35%). The smallest group works in the Emergency Department, with 50 nurses (25%). This varied departmental representation allows for a comprehensive understanding of stress management strategies across different hospital settings, where the demands and stressors may vary.

the distribution of participants in terms of gender, age, and department offers valuable insights into the makeup of the nursing workforce, providing context for analyzing stress levels and coping mechanisms within these demographic groups.

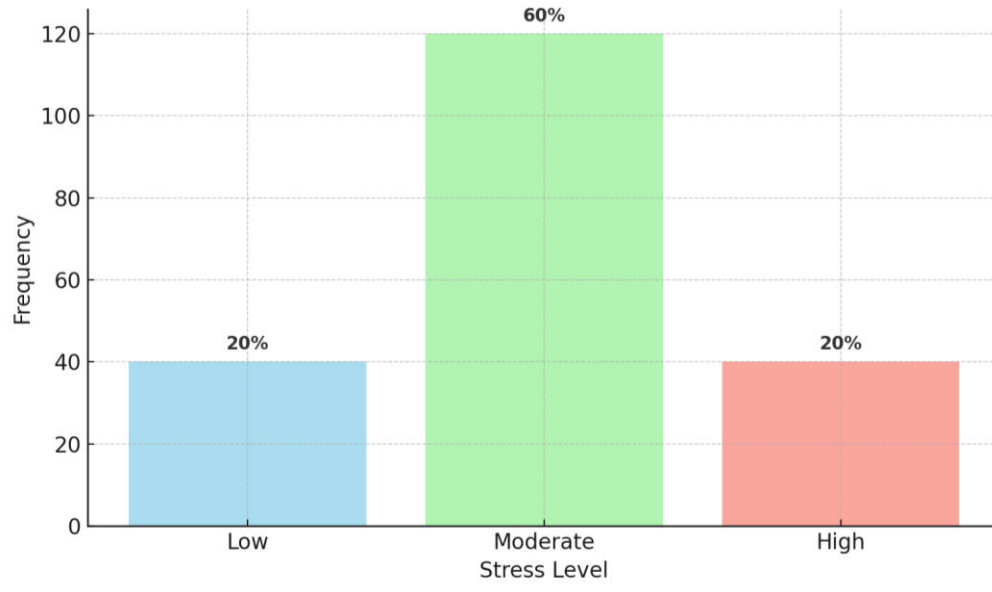


Figure 2 :Stress Levels Among Participants

The figure above illustrates the distribution of stress levels among the participants in the study. The stress levels are categorized into three groups: Low, Moderate, and High.

In terms of stress level, the largest group of participants falls under the Moderate category, with 120 nurses (60%) reporting moderate stress levels. This indicates that the majority of nurses experience moderate stress, suggesting that stress management strategies for this group could be particularly crucial for maintaining well-being.

Both the Low and High stress levels each represent 40 participants (20%) of the sample. These two categories are equal in size but represent opposite ends of the stress spectrum. Nurses with low stress may not need as intense stress management interventions, while those with high stress may require more targeted interventions to address their specific stressors and coping strategies.

The overall distribution of stress levels provides valuable insights into the stress dynamics within the nursing workforce. While moderate stress is most common, it highlights the importance of developing effective stress management strategies tailored to the needs of nurses in various stress categories. This can also inform the types of interventions that might be most beneficial for reducing stress in the nursing profession.

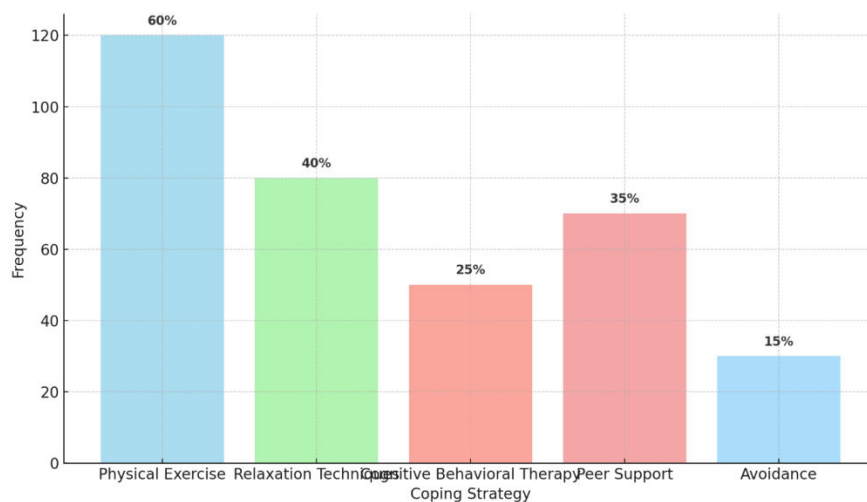


Figure 3 :Coping Strategies Used by Nurses

The figure above visually represents the coping strategies used by nurses to manage stress, as detailed in the table. The figure compares the frequency and percentage of nurses using different strategies.

The most widely adopted coping strategy is Physical Exercise, with 120 nurses (60%) reporting its use. This suggests that physical activity is a prominent method for nurses to manage stress, possibly due to its well-known benefits in reducing anxiety and improving overall mental health.

Relaxation Techniques are also commonly used, with 80 nurses (40%) utilizing them. These techniques might include practices such as deep breathing, meditation, or progressive muscle relaxation, which are often used to counteract the physical effects of stress and promote relaxation.

Peer Support, reported by 70 nurses (35%), is another significant coping strategy. This reflects the importance of social support within the nursing community, where colleagues can offer emotional comfort and shared experiences, helping to reduce stress levels.

Cognitive Behavioral Therapy (CBT) is used by 50 nurses (25%), indicating that some nurses are engaging in therapeutic techniques to address negative thought patterns and behaviors that contribute to stress. Although not as common as physical exercise or relaxation techniques, CBT remains an important tool for managing stress in healthcare settings.

Lastly, Avoidance, reported by 30 nurses (15%), is the least utilized strategy. This suggests that avoidance might be a less favorable or less effective approach for nurses dealing with work-related stress, as it does not directly address the underlying stressors.

the data highlights a preference for active coping strategies like exercise and relaxation techniques, with social support and therapy also playing important roles in stress management for nurses.

## **5. Conclusion and Recommendations**

### **5.1 Conclusion**

this review underscores the critical role that stress management plays in the well-being of nurses and the quality of care they provide. The evidence clearly demonstrates that nursing, as a high-pressure profession, exposes individuals to various stressors, including long hours, high emotional demands, and inadequate staffing. These factors contribute significantly to burnout, fatigue, and mental health issues, which ultimately affect both the nurses' job satisfaction and patient care outcomes. The findings from various studies highlight the effectiveness of several stress management strategies, including mindfulness-based practices, cognitive-behavioral techniques, physical exercise, and peer support. While physical exercise was found to be the most commonly used and effective coping strategy, other approaches, such as relaxation techniques and cognitive behavioral therapy, also played key roles in reducing stress levels among nurses.

It is evident from the literature that stress management should not be limited to individual coping mechanisms but should also involve organizational changes that foster supportive work environments. Effective management practices, such as providing sufficient resources, offering social support, and promoting a culture of open communication, are essential in reducing workplace stress. Nurses who feel supported by their peers and supervisors are better equipped to manage stress and continue providing high-quality care.

this review highlights the need for further research to evaluate the long-term effectiveness of these strategies, particularly in diverse healthcare settings. By implementing evidence-based stress management programs, healthcare institutions can improve nurse retention, job satisfaction, and, most importantly, patient care. Addressing the stressors faced by nurses is not only an investment in their health but also a crucial step towards building a more resilient and efficient healthcare system.

### **5.2 Recommendations**

Based on the findings of this study, several recommendations can be made to enhance stress management strategies within the nursing profession and to promote the well-being of healthcare workers.

First, it is essential for healthcare organizations to implement comprehensive stress management programs tailored to the unique needs of nurses. These programs should incorporate a variety of strategies, such as physical exercise, relaxation techniques, and cognitive behavioral therapy, to ensure that nurses have access to diverse coping mechanisms. Furthermore, mindfulness-based interventions should be promoted, given their effectiveness in reducing stress and improving emotional regulation.

Second, organizational support plays a critical role in managing stress. Healthcare institutions should prioritize creating a work environment that fosters collaboration, open communication, and mutual support among staff. Peer support networks and mentorship programs can be particularly beneficial in providing nurses with the emotional and professional support needed to cope with work-related stress.

Additionally, leadership training focused on stress management is crucial for nurse managers. Nurse leaders must be equipped with the skills to recognize stress symptoms in their staff, provide adequate support, and manage workloads effectively. By creating a supportive and balanced work environment, nurse leaders can significantly reduce the impact of stress on their teams.

Lastly, further research is needed to evaluate the long-term effectiveness of these stress management strategies across different clinical settings. Longitudinal studies could help identify the most effective approaches for different nursing specialties and provide valuable insights into the sustainability of stress reduction practices over time.

By addressing stress from both individual and organizational levels, healthcare systems can improve nurse well-being and, consequently, the quality of patient care.

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