

(RESEARCH ARTICLE)



Stress management practices among nurses: In-depth review of Bowen University Teaching Hospital, Nigeria

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Abstract

Stress is a state of mental or emotional strain resulting from adverse or demanding circumstances. This study investigates stress management among registered nurses at Bowen University Teaching Hospital, Ogbomosho, Oyo State. The objectives are to evaluate the nature and influence of stress among nurses, analyze their coping mechanisms, and identify stressors. Data was collected from 101 respondents through questionnaires and analyzed using tables, bar charts, histograms, and pie charts. The findings indicate that nurses have a good understanding of stress and employ effective strategies to manage it. Key stressors identified include staff shortages, irregular payment of salaries, and inadequate supply of equipment. Effective coping strategies include relaxation, shifting duties, and identifying stress causes.

Keywords: Stress management; Nurses; Bowen University Teaching Hospital; Coping mechanisms; Stressors

1. Introduction

Stress is an inevitable part of human life, and it becomes particularly pronounced in demanding professions such as nursing. Stress, defined as a state of mental or emotional strain or tension resulting from adverse or demanding circumstances, can significantly impact both personal well-being and professional performance. Nurses, who are at the frontline of healthcare delivery, often face high levels of stress due to the nature of their work, which includes long hours, high patient loads, and the emotional demands of caring for sick and vulnerable individuals.

In the context of nursing, stress can be external, stemming from environmental, psychological, or social situations, or internal, originating from illness or medical procedures. Chronic stress among nurses is a well-documented phenomenon that contributes to various health problems, reduces their competence, and impacts the quality of care they provide. According to the Oxford Living Dictionary, stress is crucial to understanding human life expectations and is a key factor in the professional lives of nurses.

The nursing profession is inherently demanding, as described by Abuairub (2004), who noted that nursing involves high workloads, significant responsibilities, and the necessity to constantly support human needs while ensuring patient safety. The International Council of Nurses (ICN) Code of Ethics for Nurses emphasizes the critical role nurses play in promoting, protecting, and advocating for human rights and patient safety. This heavy responsibility makes nurses particularly susceptible to stress.

Stress management is essential for nurses to maintain their health and continue to provide high-quality care. Stress management involves various techniques and methods aimed at controlling a person's level of stress, especially chronic

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stress, to improve everyday functioning. Effective stress management strategies include physical activities, healthy eating, and engaging in hobbies, which help reduce mental or emotional strain. Misterek (2009) emphasized that for nurses to provide effective healthcare, they must first take care of their own health by staying mentally, physically, and emotionally balanced.

In Nigeria, as in many other parts of the world, nurses are more prone to experiencing stress compared to other health professionals. This is often due to the demanding nature of their work, which includes dealing with life-and-death situations, managing heavy workloads, and navigating complex patient interactions. The specific stressors for nurses in Nigerian healthcare settings, such as at Bowen University Teaching Hospital, Ogbomosho, include shortage of staff, irregular payment of salaries, inadequate supply of medical equipment, and the incompetence of some colleagues.

A previous study suggested that work environment, and lack of adequate training, lack of equipment can be factors leading to stress occurrence among the studied population. According to Adesina (2024), The local context of Oyo State, characterized by its mix of urban and rural populations, diverse healthcare facilities ranging from highly equipped teaching hospitals to basic healthcare centers, and varied healthcare professional training backgrounds, presents a unique landscape for assessing the knowledge and application of WHO labor management guidelines.

This study aims to explore the nature and influence of stress among registered nurses at Bowen University Teaching Hospital, Ogbomosho, Oyo State. It seeks to identify the causes of stress, evaluate how nurses cope with stress, and analyze the effectiveness of these coping mechanisms. The objectives include understanding the levels at which nurses can identify and manage stress, assessing their knowledge of stressors, and determining the impact of stress on their communication with patients and colleagues.

By investigating stress management among nurses in this specific setting, the study hopes to contribute to the broader understanding of occupational stress in nursing and suggest effective strategies for alleviating stress. This research is crucial for developing interventions that can improve the work environment for nurses, enhance their job satisfaction, and ultimately lead to better patient outcomes.

The findings of this study are expected to provide valuable insights into the stressors affecting nurses and offer practical recommendations for managing stress in hospital settings. This will not only benefit the nurses at Bowen University Teaching Hospital but also inform policies and practices that can be adopted by other healthcare institutions facing similar challenges. By addressing the issue of stress among nurses, we can improve their well-being, enhance their professional performance, and ensure the delivery of high-quality healthcare services.

1.1. Statement of Research

The study aims to identify the causes of stress among nurses, understand how they cope with stress, and evaluate the effectiveness of stress management strategies. This includes assessing the impact of stress on their professional performance and overall well-being.

1.2. Research Questions

- Can nurses adequately identify stressors in the hospital setting?
- How do nurses cope with stress in their workplace?
- What is the relationship between stress and shift duty among nurses?
- How does stress affect communication among nurses and patients?

Objectives of Research

- Evaluate the nature and influence of stress among nurses.
- Identify causes and risk factors of stress.
- Understand nurses' responses to stress.
- Assess coping mechanisms among nurses.

2. Literature Review

2.1. Conceptual Review

Stress, a multifaceted and ubiquitous phenomenon, significantly impacts individuals' physical, psychological, and emotional well-being. It is defined as a state of mental or emotional strain or tension resulting from adverse or

demanding circumstances. Stress can be both external, arising from environmental, psychological, or social situations, and internal, originating from within the individual, such as illness or medical procedures. For nurses, who often work under intense pressure and high demands, understanding stress and its management is crucial for maintaining both their personal health and professional performance.

The Oxford Living Dictionary describes stress as an essential factor in human life that can lead to numerous health problems if not managed effectively. In the nursing profession, stress is often exacerbated by high workloads, demanding job responsibilities, and the emotional burden of caring for patients. The nursing profession is characterized by its demanding nature, requiring constant physical, emotional, and intellectual engagement. Abuairub (2004) noted that nursing is a profession fraught with stress due to high work demands, heavy responsibilities, and the need for continuous interaction with patients and their families.

The International Council of Nurses (ICN) Code of Ethics emphasizes the critical role of nurses in promoting and protecting human rights and ensuring patient safety. These responsibilities make nurses more susceptible to stress. According to the ICN Code, nurses must advocate for human rights, share responsibilities in supporting human needs, and provide quality health and patient safety. This ethical framework underscores the importance of stress management in nursing, as nurses must maintain their well-being to fulfill these significant roles effectively.

Stress management involves a range of techniques aimed at controlling and reducing the tension that occurs in stressful situations. These techniques include physical activities, healthy eating, hobbies, and other activities that help reduce mental or emotional strain. Misterek (2009) emphasized that nurses must care for themselves by staying healthy in mind, body, and spirit to provide effective healthcare to others.

2.2. Theoretical Framework

Several theories provide a framework for understanding stress and its management in the nursing profession. Betty Neuman's Systems Model and Lazarus's Transactional Model of Stress and Coping are particularly relevant.

Betty Neuman's Systems Model: Neuman's model uses a systems approach to understand how stress affects individuals, families, and communities. This model posits that stressors at one place in a system can affect other parts of the system. In the context of nursing, this means that stress experienced by nurses can impact their overall well-being, job performance, and patient care. Neuman's model emphasizes the importance of primary, secondary, and tertiary prevention strategies to manage stress. Primary prevention aims to reduce risk factors and prevent stress before it occurs. Secondary prevention involves interventions after stress symptoms have appeared, and tertiary prevention focuses on rehabilitation and recovery once the individual is stable.

Neuman's model also highlights the concept of the "normal line of defense," which consists of physiological, psychological, developmental, socio-cultural, and spiritual influences that help maintain health and wellness. When these defenses are breached due to stress, it can lead to disease. Neuman's model aligns with Selye's General Adaptation Syndrome, which describes the body's response to stress through stages of alarm, resistance, and exhaustion.

Lazarus's Transactional Model of Stress and Coping: Lazarus's model focuses on the cognitive processes involved in stress perception and management. According to this model, stress is a result of the interaction between an individual and their environment, and it is perceived when the individual appraises a situation as threatening or challenging. The model identifies two types of appraisal: primary and secondary. Primary appraisal involves evaluating the significance of the stressor, while secondary appraisal involves assessing the individual's ability to cope with the stressor.

Lazarus's model also emphasizes coping strategies, which can be problem-focused or emotion-focused. Problem-focused coping involves taking action to change the situation causing stress, while emotion-focused coping involves managing the emotional response to the stressor. Effective coping strategies are essential for nurses to manage the high levels of stress they encounter in their profession.

2.3. Empirical Review

Empirical studies on stress in the nursing profession have consistently highlighted the prevalence of stress and its negative impact on nurses' health and job performance. Research conducted by Onasoga, Ogbemor, and Ojo (2013) found that a significant percentage of nurses identified factors such as lack of incentives, heavy workloads, and inadequate resources as major stressors. Their study revealed that 84% of nurses reported that stress affected their communication with patients and relatives, and 84% managed stress by observing relaxation after a few hours of work.

Makames et al. (2012) conducted a study on the sources of work-related stress among nurses and found that the most common stressors included work concerns (55%), financial issues (51%), and family problems (45.7%). They also identified the most common manifestations of stress, which included sleeping disturbances, anxiety, and physical symptoms such as headaches and fatigue.

Another study by the Health and Safety Executive (2012) reported that work-related stress accounted for a significant proportion of long-term sickness absence among healthcare workers. The study emphasized the need for effective stress management programs to address the high levels of stress in the nursing profession.

Research has also shown that effective stress management strategies can significantly improve nurses' well-being and job performance. Strategies such as time management, relaxation techniques, and social support have been identified as effective ways to manage stress. Onasoga et al. (2013) found that 94% of nurses managed their time better to cope with stress, while 65% altered stressful situations to reduce their impact.

Overall, empirical evidence underscores the critical need for stress management in nursing. Effective stress management strategies not only improve nurses' health and well-being but also enhance the quality of care they provide to patients. By understanding the sources and manifestations of stress and implementing effective coping mechanisms, nurses can maintain their professional competence and ensure better patient outcomes.

3. Material and method

3.1. Research Design

This research employs a descriptive survey design to investigate stress management among registered nurses at Bowen University Teaching Hospital, Ogbomosho, Oyo State. A descriptive survey design is appropriate for this study as it aims to describe the existing phenomenon of stress and its management among nurses. This method allows for the collection of data that provides a detailed snapshot of the current state of stress management and how it impacts nurses' performance in a healthcare setting.

3.2. Research Setting

Brief History of Bowen University Teaching Hospital, Ogbomosho: The Bowen University Teaching Hospital, formerly known as the Baptist Medical Centre, was established by Dr. George Green and his wife Lydia, London-born missionaries, who arrived in Ogbomosho from the United States on March 18, 1807. Dr. Green initiated medical work in Nigeria, converting rooms in their residence into operating theaters. Over time, the facility expanded to include a range of medical services, including training for general medical practitioners, nurses, and midwives. On December 1, 2009, the hospital evolved into a teaching hospital associated with Bowen University, enhancing its capabilities in medical education and healthcare delivery.

3.3. Target Population

The subjects of this study are registered nurses working at Bowen University Teaching Hospital. This population is chosen because they are at the frontline of patient care and are likely to experience significant stress due to their demanding roles.

3.4. Sample and Sampling Techniques

A sample size of 101 registered nurses was selected using convenient sampling techniques, a type of non-probability sampling method. This approach allows the researcher to include available subjects who are willing to participate in the study, making it a practical choice given the constraints of time and resources.

3.5. Instruments of Data Collection

To achieve the objectives of this study, a structured questionnaire was used as the primary instrument for data collection. The questionnaire was designed based on factors identified in related studies and through extensive literature review. It was structured to gather information on the demographic characteristics of the respondents, their knowledge of stress, the causes and effects of stress, and their coping mechanisms.

3.6. Validity and Reliability of Instruments

The questionnaire was reviewed by experts in the field to ensure its content validity. Additionally, a pilot test was conducted, and the test-retest method was used to assess the reliability of the instrument. The reliability coefficient obtained was 0.89, indicating a high level of consistency in the responses.

3.7. Method of Data Collection

The data collection process involved distributing the questionnaires to the registered nurses at Bowen University Teaching Hospital. A total of 101 questionnaires were administered, and all were returned completed. The researcher ensured that participants understood the purpose of the study and provided their responses voluntarily.

3.8. Method of Data Analysis

After collecting the questionnaires, the data were carefully assessed for statistical clarity, consistency, and relevance. The Statistical Package for the Social Sciences (SPSS) was used for data analysis. The data were presented using frequency tables, bar charts, histograms, and pie charts to facilitate a clear understanding of the findings.

3.9. Ethical Considerations

Ethical approval was obtained from the relevant authorities at Bowen University Teaching Hospital. The respondents' confidentiality was assured, and their voluntary consent was secured before participation. All ethical guidelines were strictly followed to protect the rights and well-being of the participants.

4. Result

Table 1 Distribution of Respondents by Age

Age Range (years)	Frequency	Percent
20-24	46	45.5%
25-29	31	30.7%
30-34	15	14.9%
35 and above	9	8.9%

Table 2 Distribution of Respondents by Gender

Gender	Frequency	Percent
Male	44	43.6%
Female	57	56.4%

Table 3 Distribution of Respondents by Professional Level

Professional Level	Frequency	Percent
NOII	52	51.5%
NOI	23	22.8%
PNO	23	22.8%
Others	3	3.0%

Table 4 Distribution of Respondents by Years of Experience

Years of Experience	Frequency	Percent
1-5 years	62	61.4%
6-10 years	26	25.7%
11-15 years	12	11.9%
16 years and above	1	1.0%

Table 5 Distribution of Respondents by Marital Status

Marital Status	Frequency	Percent
Single	55	54.5%
Married	46	45.5%

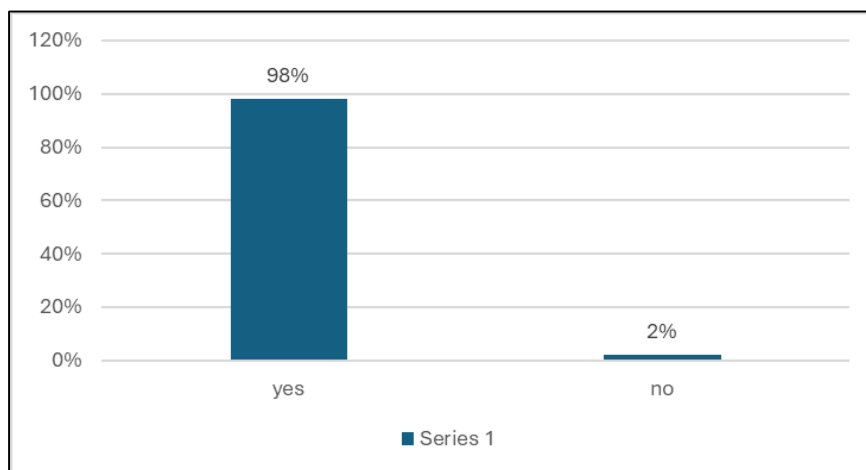


Figure 1 Knowledge of Stress among Nurses

98% of respondents accepted that stress can be defined as a situation causing disequilibrium of psychological homeostasis.

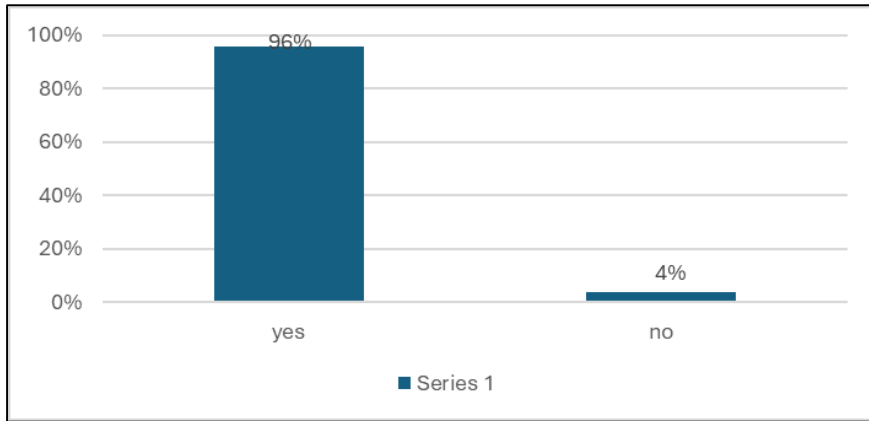


Figure 2 Response to Stress Varies

96% of respondents agreed that response to stress varies depending on the individual's perception of events.

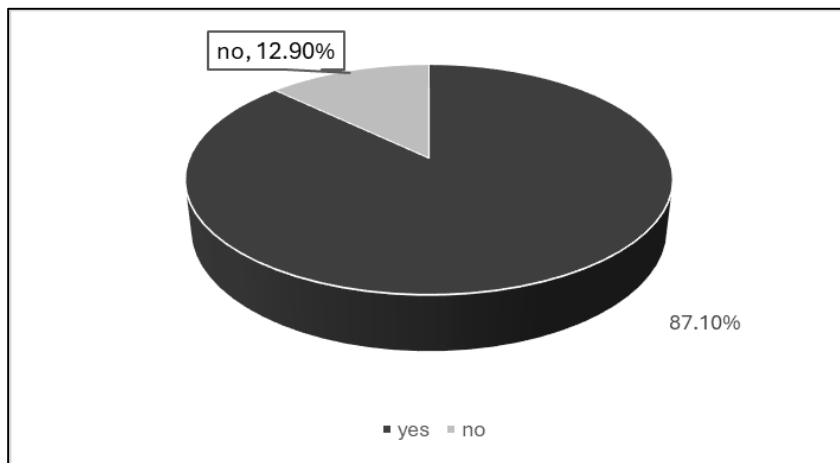


Figure 3 Fear and Anxiety as Indicators of Stress

87.1% of respondents recognized fear and anxiety as indicators of stress.

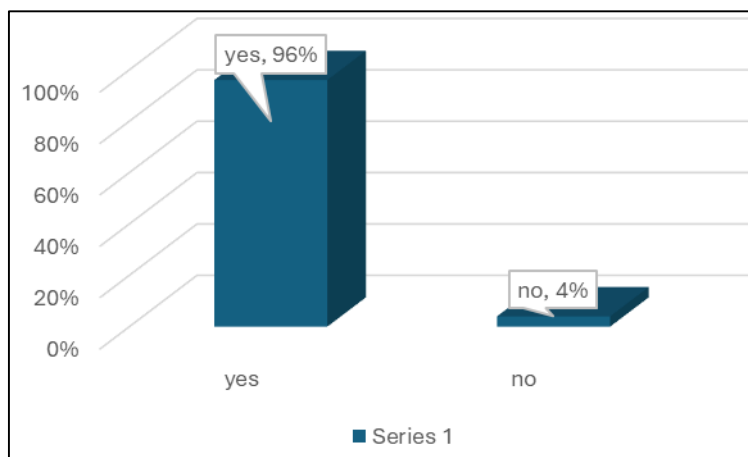


Figure 4 Experience of Stress among Nurses

96% of respondents have experienced stress.

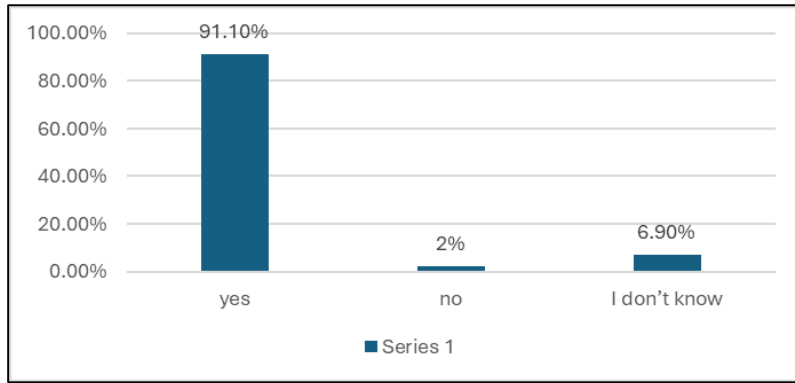


Figure 5 Stress Management in the Hospital

91.1% of respondents agreed that stress management involves controlling and reducing tension in stressful situations.

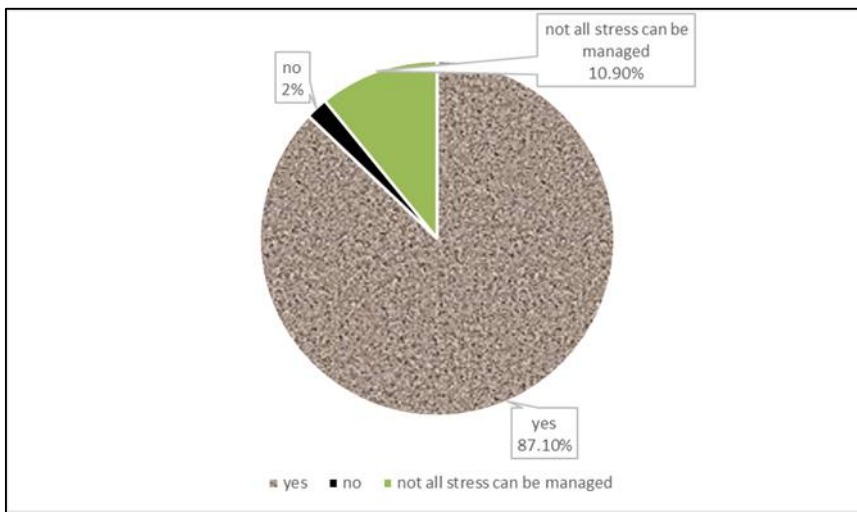


Figure 6 Stress Management by Nurses

87.1% of respondents believe that stress can be managed by nurses in the hospital.

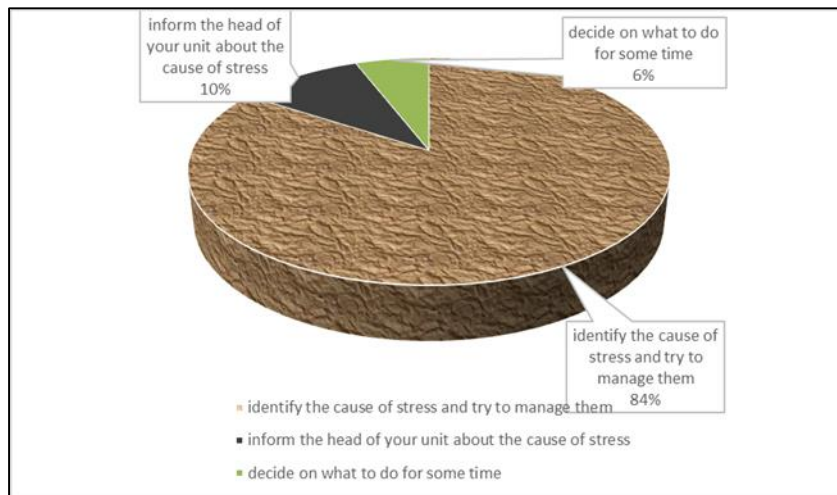


Figure 7 Methods of Managing Stress

74.3% of respondents manage stress by identifying its causes and addressing them.

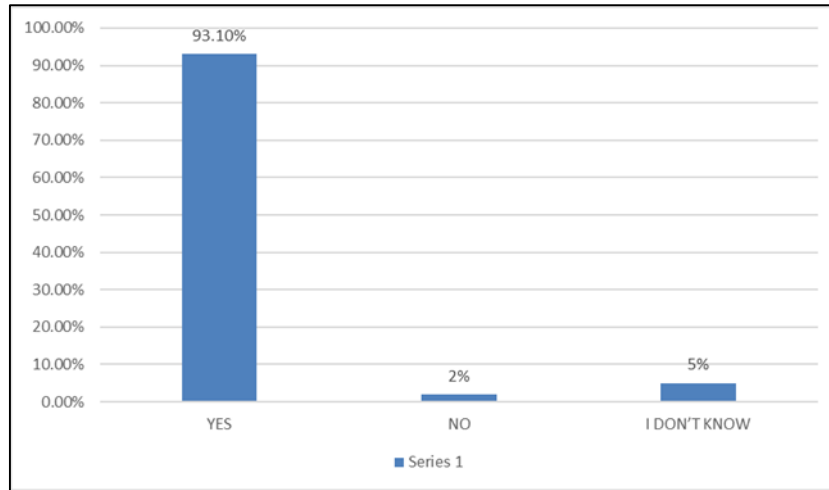


Figure 8 Relaxation as a Stress Management Method

93.1% of respondents use relaxation after a few hours of work to control stress.

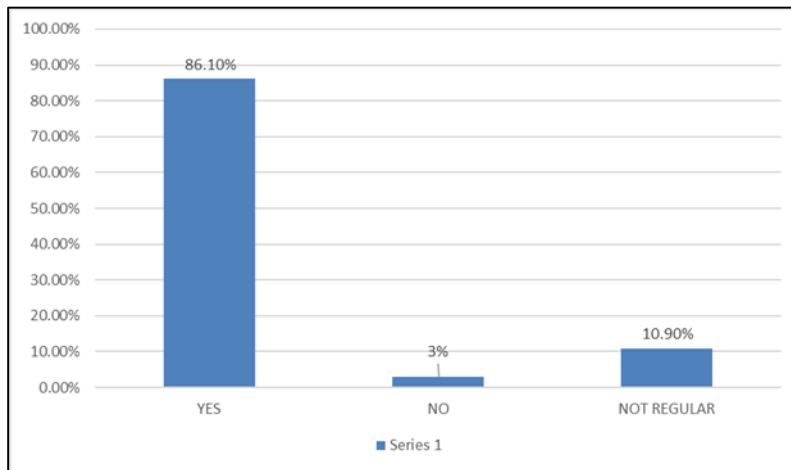


Figure 9 Observation of Relaxation

83.2% of respondents observe relaxation after a few hours of work.

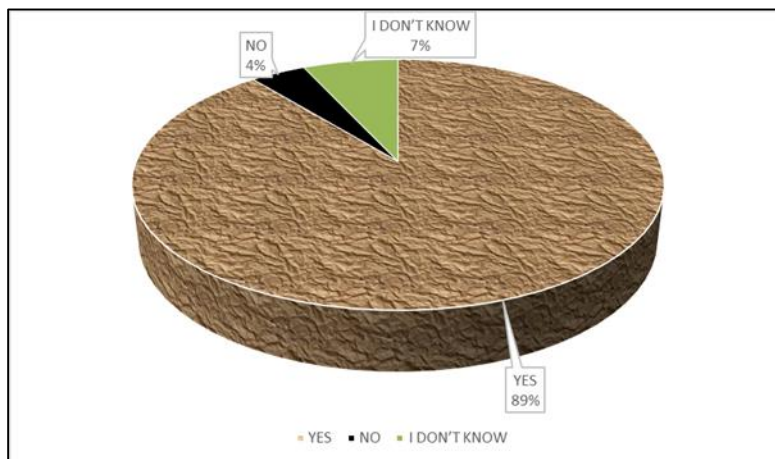


Figure 10 Shifting Duty as a Stress Management Method

89.1% of respondents use shifting duties to control stress.

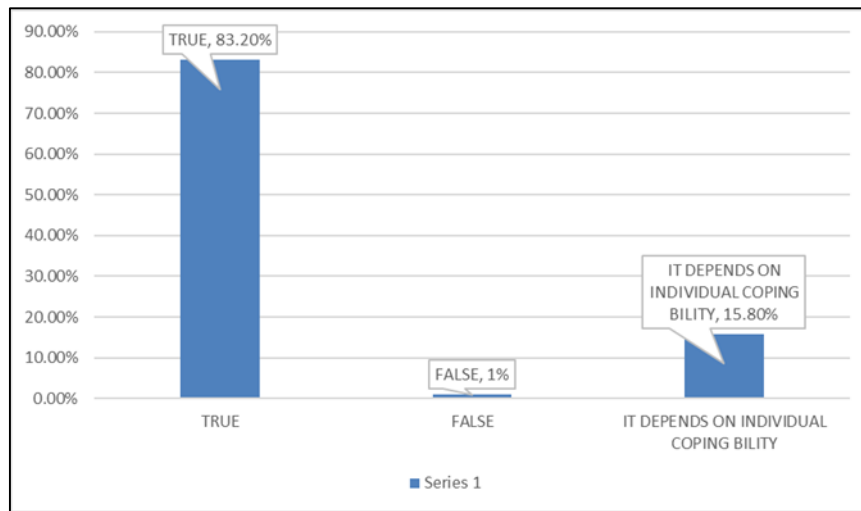


Figure 11 Effect of Stress on Communication

63.2% of respondents believe that stress affects communication with patients and relatives.

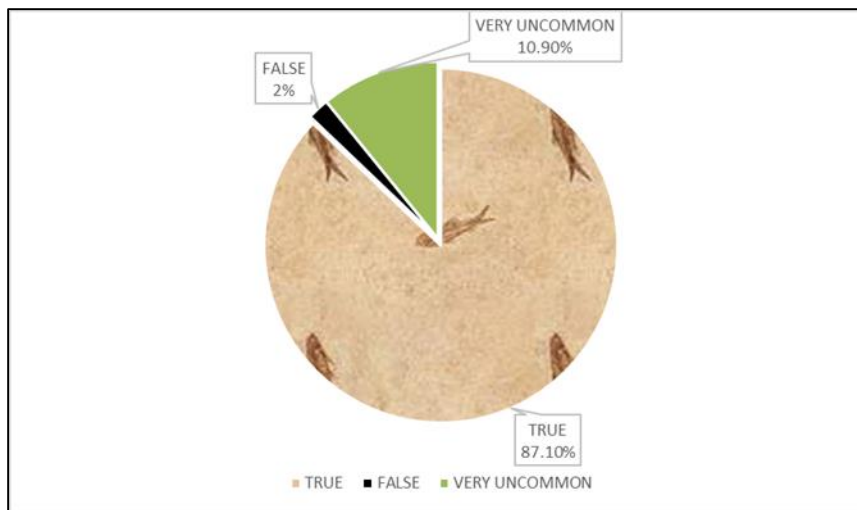


Figure 12 Long-Term Stress and Risk of Disease

87.1% of respondents agree that long-term stress increases the risk of disease or injury.

5. Discussion of Findings

The discussion of findings focuses on the data collected from 101 registered nurses working at Bowen University Teaching Hospital, Ogbomosho, Oyo State. The study aimed to evaluate the nature and influence of stress among these nurses, identify the primary stressors, and assess their coping mechanisms. The findings provide valuable insights into the prevalence of stress, its impact on nurses, and the strategies they employ to manage it.

5.1. Demographic Profile of Respondents

The demographic profile of the respondents shows a diverse group of registered nurses in terms of age, gender, professional level, and years of experience. The majority of the respondents (45.5%) were aged between 20-24 years, followed by 30.7% aged between 25-29 years, 14.9% aged between 30-34 years, and 8.9% aged 35 years and above. This indicates that a significant portion of the nursing staff is relatively young, which may influence their perception and management of stress.

In terms of gender, 56.4% of the respondents were female, and 43.6% were male. This reflects the general gender distribution in the nursing profession, where females typically outnumber males. Regarding professional level, 51.5% of the respondents were NOII (Nursing Officers II), 22.8% were NOI (Nursing Officers I), and 22.8% were PNO (Principal Nursing Officers), with 3% in other unspecified levels. The majority (61.4%) had 1-5 years of experience, indicating a predominantly early-career workforce, while 25.7% had 6-10 years, 11.9% had 11-15 years, and only 1% had over 16 years of experience.

5.2. Knowledge and Perception of Stress

The data indicates a high level of awareness and understanding of stress among the nurses. Approximately 98% of respondents recognized stress as a situation causing disequilibrium of psychological homeostasis. Additionally, 96% agreed that the response to stress varies depending on individual perception, and 87.1% identified fear and anxiety as indicators of stress. This high level of awareness is crucial for effective stress management, as it allows nurses to recognize and address stress proactively.

5.3. Prevalence of Stress

The study revealed that 96% of the respondents had experienced stress, highlighting its prevalence among the nursing staff at Bowen University Teaching Hospital. This finding aligns with existing literature that identifies nursing as a highly stressful profession due to the demanding nature of the work, emotional engagement with patients, and high expectations from both patients and healthcare institutions.

5.4. Stress Management Strategies

A significant finding of the study is the various strategies nurses employ to manage stress. The majority (91.1%) agreed that stress management involves controlling and reducing tension in stressful situations. Common strategies included relaxation techniques (93.1%), identifying and managing the causes of stress (74.3%), and observing relaxation after a few hours of work (83.2%). These strategies are essential for maintaining mental and emotional well-being in a high-pressure work environment.

Shifting duties was another effective strategy identified, with 89.1% of respondents acknowledging its role in stress management. By rotating shifts, nurses can balance their workload and reduce the risk of burnout. Additionally, effective communication was highlighted, with 63.2% of respondents indicating that stress affects how nurses communicate with patients and relatives. This underscores the importance of addressing stress to maintain effective patient care and professional relationships.

5.5. Impact of Stress on Health

The study also explored the impact of long-term stress on health. A significant 87.1% of respondents agreed that long-term stress increases the risk of disease or injury, and 85.1% recognized its impact on the immune system. This finding is consistent with existing research that links chronic stress to various health issues, including cardiovascular diseases, weakened immune response, and mental health disorders.

5.6. Identified Stressors

Several key stressors were identified in the study, reflecting common challenges in the nursing profession. These included:

- **Shortage of Staff:** 69.3% of respondents strongly agreed that staff shortages are a significant stressor. This is a critical issue in many healthcare settings, leading to increased workloads and decreased job satisfaction.
- **Irregular Payment of Salaries:** 54.5% of respondents strongly agreed that irregular salary payments contribute to stress. Financial instability can significantly impact mental health and job performance.
- **Inadequate Supply of Equipment:** 57.4% of respondents strongly agreed that inadequate medical supplies are a stressor. Lack of essential tools and resources can hinder nurses' ability to provide effective care and increase stress levels.
- **Incompetence of Colleagues:** 56.4% of respondents identified incompetence among nurses on duty as a stressor. This can lead to increased workloads for competent nurses and create a stressful work environment.

5.7. Implications for Nursing Practice

The findings have several implications for nursing practice and healthcare management. Firstly, there is a need for targeted interventions to address the identified stressors, such as improving staffing levels, ensuring regular salary

payments, and providing adequate medical supplies. Additionally, training programs should focus on enhancing nurses' coping mechanisms and stress management strategies.

Healthcare institutions should also prioritize the mental and emotional well-being of nurses by providing support systems, such as counseling services and stress management workshops. Effective communication and teamwork should be encouraged to create a supportive work environment where nurses feel valued and respected.

Limitations of the Study

While the study provides valuable insights, it is limited to nurses at Bowen University Teaching Hospital, which may affect the generalizability of the findings. Additionally, the use of self-reported questionnaires may introduce response bias, as participants may overestimate or underestimate their experiences of stress.

6. Conclusion

In conclusion, the study highlights the high prevalence of stress among nurses at Bowen University Teaching Hospital and the various strategies they employ to manage it. Addressing the identified stressors and enhancing stress management strategies can significantly improve nurses' well-being and job performance. By prioritizing the mental and emotional health of nurses, healthcare institutions can ensure the delivery of high-quality care and better patient outcomes.

The study underscores the importance of a supportive work environment, effective communication, and adequate resources in mitigating stress and promoting a healthy, productive workforce. Further research is needed to explore stress management in different healthcare settings and to develop comprehensive strategies for addressing this critical issue in the nursing profession.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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