

**KNOWLEDGE AND ATTITUDE OF EMERGENCY ROOM NURSES TOWARDS PAIN  
MANAGEMENT IN KWARA STATE UNIVERSITY TEACHING HOSPITAL ILORIN,  
KWARA STATE.**

**BY**

**OPARA CHIGAEMEZU PRECIOUS**

**AT**

**THOMAS ADEWUMI UNIVERSITY OKO-IRESE, KWARA STATE**

**AUGUST 2025**

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**IN PARTIAL FILFILLMENT OF THE REQUIREMENT OF BACHELOR OF NURSING OF  
NURSING SCIENCE FOR THE AWARD OF BNSC NURSING DEGREE CERTIFICATE**

**AUGUST 2025**

## Declaration

This is to declare that the research project titled **Knowledge And Attitude Of Emergency Room Nurses Towards Pain Management In Kwara State University Teaching Hospital, Ilorin Kwara state**, was carried out by **Opara Chigaemezu Precious** is solely result of my work except where acknowledged as being derived from other person(s) or resources.

Matriculation Number: 20/05NSS010

In The Faculty of Nursing Sciences, Thomas Adewumi University Oko-irese Kwara State.

Signature




Date: 7/08/2025

## Certification

This is to certify that this research project by **Opara Chigaemezu Precious** with Matriculation number **20/05NSS010** has been examined and approved for the award of


### 'BNSC NURSING DEGREE CERTIFICATE'

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## Abstract

*Pain is multidimensional, encompassing emotional and sensory elements, and should be regularly assessed. Despite recognizing the importance of pain management, nurses' knowledge, especially in pharmacology and pain assessment, is often insufficient, affecting patient outcomes. This study assessed the knowledge and attitudes of registered nurses towards pain management in the Emergency Department at Kwara State University Teaching Hospital, Ilorin. The purpose of this study was to: determine nurses' knowledge on pain management; to assess nurses' attitude towards pain management; to identify factors influencing emergency room nurses' knowledge and attitudes towards pain management and to identify challenges in pain management faced by emergency room nurses. Descriptive survey research design was adopted for this study. 111 nurses were selected using simple random sampling technique. A researcher's designed questionnaire was used to collect data. The research questions were answered using mean analysis and the research hypotheses was analyzed using independent sampled t-test tested at 0.05 level of significance. The findings revealed that: nurses had high knowledge of pain management; nurses had positive attitude towards pain management; the major factors influencing emergency room nurses' knowledge and attitudes towards pain management was time constraints; the major challenges in pain management faced by emergency room nurses was high volume of patients and language barrier; there was no significant difference in the knowledge and attitude of male and female nurses on pain management in the emergency room. Conclusively, the study emphasizes on interventions at various levels having identified high level of knowledge and positive attitude towards pain management. Based on the findings, it was recommended that the hospital management should provide continuous training and professional development opportunities for nurses on the latest pain management practices to ensure they maintain their high knowledge and positive attitude.*

**Keywords: Pain, Management, Knowledge, Attitude**

**WORD COUNT: 286**

## **Dedication**

This research study is dedicated to Almighty God for His continuous faithfulness and mercy which He has bestowed upon me and also for granting me the grace and strength needed throughout the course of this study.

## **Acknowledgement**

I am grateful to Almighty God for His grace and divine mercies over my life throughout the course of this study, also for helping me through the period of this programme and for been a prayer answering God who always shows up for His own.

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## CHAPTER ONE

### 1.0 Introduction

This chapter discussed the background of the study, statement of problem, objectives of the study, research hypothesis/questions, significance of the study, scope of the study, and operational definition of terms.

### 1.1 Background of study

Pain is a universal experience; everyone knows about pain by personal experience. Pain is experienced in various ways either physiologically or psychologically. Pain management is considered such an essential part of care that the American Pain Society coined the phrase “Pain as the 5th Vital Sign” (Oshvandi et al; 2017, Lisa Lines., 2023). The World Health Organization (WHO) and Human Rights Watch declared that pain management was a human right. Across the world, 25-29% of the population suffers from pain (Aquichan, 2019, Wang et al., 2021). Chronic pain prevalence varies across Sub-Saharan Africa, but studies suggest it is a significant issue, particularly among older adults. A systematic review found that the prevalence of chronic pain in Sub-Saharan Africa ranged from 15.9% to 77.1%, with a median prevalence of 34.6% (Rebecca et al., 2025). A study on low back pain among healthcare workers in Nigeria reported a 12-month prevalence rate of 87.3% (Raymond et al., 2025). Also, another study found that 71.4% of nurses in a Nigerian teaching hospital experienced low back pain (Kim et al., 2025). Then in Kwara state unfortunately, specific pain statistics for Kwara State are scarce. However, the state population and healthcare infrastructure have a population of approximately 3,551,000 people. Nurses in the Accident and Emergency Units of the University of Ilorin Teaching Hospital (UITH) demonstrated a high level of knowledge (72%) and good practices (54%) of non-pharmacological pain

management. While there is a none specific data on the overall prevalence of pain in Kwara State, studies suggest that pain is a significant issue in Nigeria, with high rates of low back pain among healthcare workers and nurses (Onasoga et al., 2022).

In both community and hospital settings, nurses frequently encounter pain as a prevalent patient symptom and cause for most frequent reason for an emergency visit. While the underlying pathology causing the pain may be diverse, the principle of management remains largely similar. This symptom is involved in approximately 70% of all emergency department visits (Kavanagh et al., 2022). However, pain is known to affect a person's physical, mental and social quality of life, inadequate pain management may lead to slower recovery, an increased risk of complications, anxiety, disturbed sleep, as well as increase mortality and morbidity rate (Elcigil et al., 2016, Gatchel 2020). Therefore, the management and control of pain is a very important goal in patient care. Inability to adequately assess, manage patient's pain and intervene accordingly has an impact on patients' quality of life. Poor knowledge and attitude of nurses regarding pain may contribute to inadequate pain management. International researchers argue that pain management in the emergency department (ED) setting should receive significant attention since pain relief is a primary reason for patients to present to the Emergency department (Bouaiti et al., 2016; Thornton et al., 2017). Nurses as the primary caregivers in the emergency departments, should have adequate knowledge and a good attitude towards pain management as pain is the most disturbing and feared symptom experienced by a majority of patients during hospitalization.

Jahn et al in 2010 described Pain as a complicated and multidimensional phenomenon. Although various pain definitions have been made, the most valid definition today is the definition of the International Organization for Pain Studies (International Association for the Study of Pain

[IASP]) which defined pain as an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage (IASP,2022).

In the definition made by IASP, it is seen that the objective, subjective, emotional and psychological aspects of pain are brought together. Liyew et al 2020 described Pain as a term used in a stressful experience and when left untreated, it reduces the patient's quality of life and significantly interfere with the patients physical, emotional, and spiritual well-being. Another definition also describes it as an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage (Schiavenato,2021). From the definitions above it has been stated that pain is a subjective feeling and it greatly causes discomfort to the patient going through it so, managing that pain is the utmost goal of the nurse at that particular time. In the case of not been able to manage this pain properly the patient will constantly complain about it and then it becomes persistent always reoccurring. Although pain is observed in all clinics and units of a hospital, emergency services are one of the places where pain is most frequently encountered. It is indicated that pain is a primary problem for more than 70% of patients at an emergency service and is a priority reason for admission (Butti et al., 2017; Lourens et al., 2019).

Pain management is the commonest nurses' workload in the emergency department and quality of care is closely related to nurses' knowledge and attitudes regarding pain. Pain management includes patient and communication about the pain problem and will be used to address patients pain symptoms. The main concept of pain management is to relief patient pain symptoms, alleviate suffering and improve quality of life. Effective pain management needs a strong base of pain related knowledge and an optimal attitude toward pain which can have a critical impact during

treatment. Basic principles of pain management recommends that pain should be assessed regularly i.e. together with other vital signs.

According to Kashey et al 2019 Nurses' knowledge of pain management is weak with incorrect answers being highest on pharmacology and assessment of pain although research shows that if health care providers assess and treat pain before it becomes severe, sensitization is avoided and less medication is needed. Unsuccessful pain management not only causes repeated admissions to an emergency service, where acute pain management is important, but in the long term, also leads to an extended length of hospital stay, increased cost of healthcare services, loss of labour force, an increased mortality and morbidity rate, and reduced life quality and patient satisfaction.

The criterion for minimally acceptable percentage score on the Nurses Knowledge and Attitudes Survey Regarding Pain Tool (NKAS) is 80%. Both knowledge and attitudes affect the nurses' ability to effectively manage pain. Although these nurses may have appropriate attitudes towards pain management, there will be discrepancies between practice and attitude. This means that nurses may have positive attitude towards pain management but without sufficient knowledge to effectively relieve the pain. Also, we can say that clinical experience is one of the most influential factors that can promote nurses' knowledge and confidence in managing a patient's pain. Nurses with longer clinical working experience applied knowledge of pain to their daily practice. However, it can be said that nurses' personal experience with pain would likewise influence their practice in pain management. The purpose of this study therefore is to assess the knowledge and attitude of registered nurses towards pain management in the Emergency department of Kwara State University Teaching Hospital Ilorin, Kwara state.

## **1.2 Statement of the problem**

Pain remains one of the most common and urgent symptoms presented in emergency departments, yet its effective management continues to pose significant challenges. Despite being a core responsibility in emergency nursing, pain management is often suboptimal due to a combination of inadequate knowledge, negative attitudes, and clinical underestimation of patient pain by nurses (Keating et al., 2011; Karamjeet, 2021).

As a student nurse with clinical experience in the emergency department of Kwara State University Teaching Hospital, I have observed firsthand the complexities and inconsistencies in pain management. While patients regularly report varying intensities of pain even for similar medical conditions the responses they receive from nurses are not always adequate. In some cases, patients were transferred or discharged without receiving proper pain assessment or relief interventions. These lapses not only delayed recovery but also compromised the overall quality of care.

One notable concern is the frequent underestimation of patients' reported pain levels by nurses, sometimes based on subjective judgment or assumptions that patients are exaggerating their symptoms. Inadequate assessment and poor attitudes can lead to insufficient treatment and missed opportunities to prevent acute pain from progressing into chronic conditions. Additionally, the lack of consistent use of standardized pain assessment tools and varied understanding of pain management strategies further contribute to these challenges.

Several studies have linked factors such as years of experience, prior training, workload, and exposure to ongoing professional development to nurses' knowledge and attitudes toward pain management (Lavigne et al., 2004; Bergman, 2012; Wang et al., 2020). These findings highlight

the importance of both clinical competence and empathetic care in ensuring effective pain relief in emergency settings.

Therefore, this study seeks to assess the knowledge and attitude of emergency room nurses toward pain management in Kwara State University Teaching Hospital, Ilorin. By examining these critical areas, the research aims to identify knowledge gaps, attitudinal barriers, and areas for improvement ultimately contributing to the development of practical strategies that enhance pain management and improve patient outcomes in emergency care.

### **1.3 Objectives of the study**

The broad objective of this study is to assess the knowledge and attitude of emergency room nurses regarding pain management in the emergency department of Kwara State University Teaching Hospital, Ilorin.

The specific objectives of this study include to:

1. determine the knowledge of nurses in kwara state university teaching hospital Ilorin towards pain management;
2. assess the attitude of nurses in kwara state university teaching hospital Ilorin towards pain management;
3. identify the factors influencing emergency room nurses' knowledge and attitude towards pain management in Kwara state university teaching hospital Ilorin and;
4. identify the Challenges in Pain Management Faced by Emergency Room Nurses in Kwara state university teaching hospital Ilorin.

## **1.4 Research Questions**

1. Can the knowledge of emergency room nurses affect patients pain management?
2. Does the attitude of nurses affect patients pain management?
3. What are the factors influencing emergency room nurses' knowledge and attitudes towards pain management?
4. What are the challenges in pain management faced by emergency room nurses?

## **1.5 Research Hypothesis**

1. H0: There is no significant difference in the knowledge of male and female nurses on pain management in the emergency room
2. H1: There is no significant difference in the attitude of male and female nurses on pain management in the emergency room

## **1.6 Significance of Study**

Nurses play a pivotal role in pain assessment and management. So, understanding their knowledge and attitude helps ensure that patients receive optimal care, as pain is a significant aspect of patient experience in the emergency rooms. This study will enable nurses in the emergency rooms have a broad understanding that patients pain management has a role to play in the recovery of patients and also improve their quality of life.

Effective pain management enhances patient satisfaction, improves outcomes, and can potentially reduce the length of hospitalization of patients. By assessing nurses' knowledge and attitude we can gauge their impact on patient outcomes.

This research on nurses' knowledge and attitude towards pain management will contribute to the ongoing professional development of nursing staff, fostering a culture of continuous learning and improvement. Identifying gaps in knowledge or negative attitudes will guide targeted interventions, such as additional training or educational programs, to improve pain management practices in emergency rooms.

Also, findings from this study can inform health care policies and guidelines related to pain management practices in emergency department, leading to better standardized care protocols and improved patient outcomes on a broader scale.

When pain is managed effectively it contributes to public health by reducing suffering and improving overall well-being of patients. The society benefits when the health care providers, including the nurses are well equipped to manage pain effectively. By ensuring emergency room nurses have the necessary knowledge and attitude towards pain management the society can improve access to quality health care, particularly for individuals experiencing acute pain or traumatic injuries.

This study will also help the society build a strong trust in the health care system. When individuals see that the healthcare system is strengthened and there is improved quality of care for patients towards pain management. It will likewise uphold their trust by ensuring that the nurses are well prepared to address their pain in emergency settings.

### **1.7 Scope of Study**

This study was carried out in the Kwara State University Teaching Hospital Ilorin, Kwara State to enquire about the knowledge and attitude of emergency room nurses towards pain management.

## 1.8 Operational Definition of Terms

- **Knowledge:** the act of knowing about pain or pain management
- **Attitude:** the way a nurse behaves or acts towards pain management
- **Emergency:** a sudden, serious event requiring immediate attention.
- **Room:** a space to carry out emergency cases
- **Nurses:** a person trained to provide care for those in pain
- **Pain:** an unpleasant feeling
- **Management:** the process of dealing with or controlling people.
- **Patients:** a sick person that is receiving treatment.

## **CHAPTER TWO**

### **Review of Related Literature**

#### **2.0 Introduction**

This chapter reviews relevant scholarly publication on the topic ‘knowledge and attitude of emergency room nurses towards pain management in Kwara state university hospital Ilorin’. The research title guided in the review of scholarly articles from both national and international journals.

However, this chapter will be discussed under the following headings:

- Introduction
- Conceptual review
- Theoretical review
- Empirical review

#### **2.1 Conceptual Review**

##### **2.1.1 pain**

The term "pain" originates from the Latin word "poena," which means fine, penalty, or punishment. Ancient Greeks associated pain with pleasure, as they believed the relief from pain brought both pleasure and emotional release.

The International Association for The Study of Pain (IASP) defined pain as an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage (IASP,2022). Pain is a multifaceted experience that involves physical, psychological, and social factors. It can significantly impact quality of life and functionality,

particularly in chronic conditions such as low back pain (WHO, 2023). Pain is also described as a complex and subjective experience influenced by a variety of factors, including physical, psychological, and social elements. It is not merely a response to physical injury but also involves the individual's emotional and cognitive responses to that injury (Urits et al.2019).

## **2.2 Pain management**

According to WHO (2023) Pain management is a multidisciplinary approach aimed at easing the suffering and improving the quality of life of those living with chronic pain.

Pain management involves various techniques aimed at reducing or eliminating pain, often through the use of medications, therapies, and interventional procedures (American Academy of pain medicine, 2024).

### **2.2.1 How is pain managed generally in the health care sector**

Pain is characterized as a distressing experience often caused by intense or damaging stimuli. This comprehensive review underscores the pathophysiological, diagnostic, and therapeutic dimensions of pain, highlighting its role in signaling harm to the body and prompting protective behaviors (Burshtein, et al 2019). In the general management of pain, the health care sector has set out various ways and guidelines by which pain is been managed. There are the pharmacological and non-pharmacological strategies (El-Boghdadly et al., 2022).

### **2.2.2 How is pain managed in the Emergency department**

Pain is the most common chief complaint in the emergency department (ED), with up to 78% of patients reporting pain as the primary reason for visiting the Emergency department. For many years, research suggested that pain was undertreated in the Emergency department and that there

were disparities in treatment with pain medications among racial, gender, and age groups. This led to a variety of interventions, such as The Joint Commission's emphasis on pain measurement and the implementation of a pain score as the "fifth vital sign". It is hypothesized that this increased emphasis on the measurement of pain contributed to the prescription opioid abuse and overdose epidemic, as clinicians felt compelled to treat the pain score that they were now measuring (Dana et al., 2020).

Pain management in the emergency department (ED) is a critical aspect of acute care. Emergency settings often involve patients with various types of pain, ranging from minor injuries to severe trauma or medical conditions (Loy et al., 2021). In recent years pain management strategies in the ED have evolved and there has been better improvement in patients pain management. The various strategies used in managing patients' pain in the emergency departments are: Opioid-Sparing Approaches like the use of Multimodal Analgesia: Medications like NSAIDs, acetaminophen, ketamine, and lidocaine are used in combination to reduce opioid requirements. This strategy is effective for conditions like renal colic, fractures, and musculoskeletal injuries (Woolley et al., 2022).

Also, we have the Low-Dose Ketamine: Low-dose ketamine (sub-dissociative doses) is gaining acceptance for acute pain management in the ED, especially in cases where opioids might not be suitable, such as in patients with respiratory issues or a history of substance abuse (Farkas et al., 2020). Ketamine offers rapid pain relief without the side effects associated with opioids.

Apart from the opioids analgesics there are the non-Opioid Analgesics such as; IV Lidocaine which is used for certain conditions like renal colic and neuropathic pain, intravenous (IV) lidocaine is used as an alternative to opioids. Studies suggest that IV lidocaine provides effective pain relief with a lower risk of sedation or respiratory depression (Bosanquet et al., 2021).

NSAIDs and Acetaminophen: These are widely used for managing mild to moderate pain, particularly in musculoskeletal injuries. The combination of acetaminophen and ibuprofen has been shown to be effective in managing acute pain without opioids (Chang et al., 2020).

Pain management in the emergency department also involves Non-Pharmacological Interventions. The non pharmacological interventions comprise of the use of distraction Techniques; For pediatric patients and others where anxiety or fear may exacerbate pain, distraction techniques such as virtual reality (VR), guided imagery, and music therapy have been integrated into pain management protocols. These are especially useful in minor procedures or when medications are being administered (Won et al., 2022). The Cognitive Behavioral Therapy (CBT); In some cases, CBT principles are applied to manage pain-related anxiety or stress in the ED. Quick counselling or relaxation techniques can help manage acute pain, particularly in chronic pain patients presenting with an exacerbation (Boniol et al., 2021).

### **2.2.3 How pain is managed individually**

Pain is subjective and difficult to quantify, because it has both an affective and a sensory component. Although the neuroanatomic basis of pain reception develops before birth, individual pain responses are learned in early childhood and are affected by social, cultural, psychological, cognitive, and genetic factors, among others. Those factors account for differences in pain tolerance among humans (Meldrum. 2024). If a person experiences pain as a result of a particular activity, they usually stop doing that activity, identifying pain as a warning sign of harm. However, if the pain persists, the individual may reduce their activity level, which can become detrimental physically and psychologically. At this point, the pain is no longer providing a useful signal, as the likelihood of injury has ceased. The ongoing pain is distressing and the disconnect between pain and tissue damage can be confusing for both the patient and healthcare professionals.

Persistent pain may lead to a reduced quality of life and misunderstanding regarding the relationship between tissue damage and pain (Pasquale et al., 2022).

Individuals managing chronic pain are increasingly using exercise therapies such as yoga, Pilates, and tai chi. These practices help improve flexibility, strength, and posture, reducing pain in conditions like lower back pain, osteoarthritis, and fibromyalgia (Geneen et al., 2023). Many individuals adopt anti-inflammatory diets to manage pain associated with conditions like arthritis and inflammatory bowel disease. These diets typically emphasize whole grains, lean proteins, fruits, vegetables, and omega-3 fatty acids (e.g., from fish), while minimizing processed foods and sugars (Raphael et al., 2021).

### **2.3 Classification of pain**

Pain is predominantly defined according to duration, but may be further classified by anatomical region, aetiology, intensity and pathophysiology. It is often necessary to combine multiple pain classifications to assess a patient's pain. It is important to consider that these different classifications are one-dimensional; to provide optimal care involving a comprehensive assessment and multimodal treatment approach, multiple pain classifications may have to be considered at once (IASP, 2020). Pain can be described as acute or chronic, depending on the duration of time that a patient experiences pain. Acute pain is short term and resolves within 3–6 months. It is the body's response to a specific injury or trauma and it serves a biological purpose. The most important feature of acute pain is that it is self-limiting; resolution of pain occurs with tissue healing or repair. In some cases, however, acute pain may transition to chronic pain, which is defined as pain that lasts for longer than 3 months, persisting beyond the normal time of healing and that serves no biological purpose (WHO, 2020, Orr et al 2017). Types of acute pains are;

Somatic Pain: Caused by damage to tissues such as skin, muscles, and joints. Examples; Cuts,

fractures, and surgical incisions. Visceral Pain: Arises from internal organs, often presenting as deep, squeezing, or diffuse pain. Examples Appendicitis, kidney stones, or gastrointestinal Inflammatory Pain infections (Briggs et al., 2021). Inflammatory pain results from the body's immune response to injury, infection, or surgical trauma, leading to swelling, redness, and pain in the affected area. Example: Postoperative pain following surgery, where tissue damage triggers an inflammatory response (Lenz et al., 2022), Referred pain occurs when pain is perceived at a location distant from the actual site of injury or pathology. Example: Heart attack pain that is felt in the left arm or jaw, or gallbladder pain felt in the shoulder. Referred pain is commonly studied in emergency departments, especially in patients presenting with atypical chest pain or abdominal pain. (Mills et al., 2021), Breakthrough Pain; refers to a transient, sudden flare of severe pain that occurs despite ongoing management of baseline pain. It often occurs in people with chronic conditions but can be classified as acute due to its sudden and intense nature. Can last from a few minutes to several hours. (Davies et al., 2020).

Chronic pain is a complex, multifaceted condition that persists for an extended period, typically lasting longer than 3 to 6 months. It often continues beyond the typical healing time of an injury or illness and can arise from a variety of causes, including injury, surgery, disease, or even without an identifiable cause. Chronic pain not only affects the physical body but also has significant psychological, emotional, and social impacts (Gao et al., 2023). The Characteristics of Chronic Pain are; it lasts beyond the normal healing period, usually defined as more than 3 to 6 months, varies from mild to severe, and may fluctuate over time. It can be constant or intermittent, with periods of intense "flare-ups". Also, Chronic pain can arise from conditions like arthritis, fibromyalgia, migraines, back pain, and neuropathy. It may also be idiopathic, meaning it occurs without a clear physical cause (Schuchat et al., 2022).

There are various types of Chronic pain which can be classified into several categories based on its origin; Nociceptive Chronic Pain: Caused by ongoing inflammation or tissue damage (e.g., osteoarthritis, cancer pain), Neuropathic Chronic Pain: Results from damage to the nervous system (e.g., diabetic neuropathy, spinal cord injuries), Mixed Pain: Some conditions, such as chronic lower back pain or complex regional pain syndrome (CRPS), can involve both nociceptive and neuropathic elements, Psychogenic Pain: Occurs in the absence of a clear physical cause, where psychological factors play a significant role (Eccleston et al.,2021, Borsook et al.,2020).

## **2.4 Pain assessment tools and technique**

Pain is an internal, subjective experience that cannot be measured using physiologic markers or bioassays. The assessment of pain, therefore, relies largely on the use of self-report. Furthermore, individual differences in pain sensitivity and pain report have long remained a perplexing and challenging clinical problem (Brown et al., 2022). For instance, pain assessment can vary substantially across individuals based on patient demographic (e.g., culture, gender), psychosocial, and other features. Therefore, self-report measures follow a multidimensional approach aimed at characterizing multiple aspects of the pain experience such as chronicity, severity, quality, locations, affective impact, and associated factors. In special populations, limited cognitive or language skills may influence pain measures, as may the positive or negative consequences of an individual's behaviors associate with pain (Paschali, et al.,2020). Pain assessment is also frequently used, as approximately 60% of ED visits result from pain-related problems (Davis et al., 2022).

Examples of pain assessment tools and techniques are: Numerical Rating Scale (NRS) Visual Analog Scale (VAS) (Hawker et al., 2022, Schofield et al., 2021), Faces Pain Scale-Revised (FPS-R): Widely used in pediatrics and validated in cross-cultural contexts, the FPS-R has been adapted

for use with digital pain diaries (Jones et al., 2023). McGill Pain Questionnaire (MPQ): emphasizes the MPQ's utility in understanding complex pain conditions like fibromyalgia (Grosen et al., 2021), Brief Pain Inventory (BPI): Widely used in cancer pain, (Cleeland et al., 2022), Pain Quality Assessment Scale (PQAS): The PQAS continues to be a useful tool for characterizing neuropathic pain, and recent studies have linked it with improved personalized pain management strategies (Smith et al., 2023). Neonatal Infant Pain Scale (NIPS): a pain assessment tool used in integrating the scale with non-invasive monitoring technologies to improve the accuracy of neonatal pain assessment (Martin et al., 2023). FLACC Scale: This tool remains central in assessing non-verbal patients, including young children and individuals with cognitive impairments (Hummel et al., 2022). Pain Assessment in Advanced Dementia (PAINAD): The PAINAD has been updated with improved protocols for use in palliative care, ensuring that even non-verbal patients receive appropriate pain management (Levine et al., 2021). Facial Expression Analysis: Advances in machine learning have enabled automated facial expression analysis to detect pain, especially in non-verbal patients. Body Movements and Guarding: Wearable sensors, are being integrated into pain assessment to quantify movement patterns associated with pain (Chen et al., 2023). Physiological Indicators: Physiological metrics like heart rate variability (HRV) and skin conductance have been increasingly used alongside traditional scales to provide a more objective measure of pain (Martini et al., 2021).

## **2.5 Barriers to effective pain management in Emergency Rooms**

Effective pain management in emergency rooms (ERs) is often hindered by various barriers, which can compromise the quality of care for patients in pains (Smith et al. 2021). Some barriers to effective pain management in the emergency rooms are:

## 1. Time Constraints and High Patient Turnover

- **Short interaction times:** Emergency departments (EDs) are characterized by rapid patient turnover, making it difficult for healthcare professionals to perform thorough pain assessments and provide individualized care.
- **Limited time for pain reassessment:** In the fast-paced ER environment, follow-up pain assessments may be delayed or skipped, affecting the accuracy of treatment adjustments (Smith et al., 2021).
- **Prioritization of life-threatening conditions:** Pain management may be deprioritized when clinicians are focused on addressing immediate life-threatening conditions, which can leave less time for addressing a patient's pain.

## 2. Nurse-Patient Communication Challenges

- **Limited communication time:** The need to triage and attend to multiple patients in short periods can limit the depth of communication between nurses and patients, making it difficult to fully understand the patient's pain experience.
- **Patients with communication barriers:** Language differences, cognitive impairments, or altered consciousness (e.g., due to injury, intoxication, or medication) can prevent accurate reporting of pain (Jones et al., 2023).
- **Inconsistent pain scales:** Patients may not be familiar with pain assessment tools (e.g., the Numeric Rating Scale or Visual Analog Scale), leading to inconsistent reporting of pain levels.

### 3. Systemic Factors

- **Lack of standardized protocols:** Many ERs lack standardized pain management protocols, leading to inconsistent practices among healthcare providers (Rodriguez et al., 2022).
- **Inadequate staffing:** Understaffed ERs limit the time available for proper pain management. Overworked nurses and physicians may not have the capacity to devote adequate attention to pain control.
- **Limited access to pain relief resources:** In some settings, there may be delays in accessing analgesics or non-pharmacological pain relief methods (e.g., ice packs, immobilization devices) (Wilson et al., 2020).
- **Concerns about opioid misuse:** The opioid crisis has led to increased caution in prescribing opioids, even in cases where they may be necessary for pain relief. This has created hesitancy among providers, resulting in potential under-treatment of pain.

#### **Additional Factors:**

- **Bias and disparities in pain management:** Research has demonstrated that racial, ethnic, and gender disparities affect pain management decisions, with certain groups (e.g., minorities, women) receiving less effective pain relief (Garcia et al., 2023).
- **Lack of patient education:** Patients may not fully understand their pain management options or the importance of communicating their pain levels to healthcare providers, leading to underreporting and suboptimal care.

## 2.6 Impact of nurses' knowledge and attitude on patient pain outcomes

Nurses' knowledge and attitudes toward pain management play a crucial role in determining patient outcomes, particularly in emergency rooms (ERs) where patients often experience acute pain (Colquhoun et al. 2019).

### 1. Correlation between Nurses' Knowledge/Attitudes and the Quality of Pain Management

- **Nurses' knowledge of pain physiology and treatment options:** Nurses with greater knowledge of pain management protocols and pharmacology are more likely to provide effective pain relief. when nurses receive regular training on pain management, including non-opioid options, there will be a measurable improvement in the quality of pain care provided to patients in ER settings (Johnson et al., 2022).
- **Attitudes toward pain:** Nurses' attitudes, including their beliefs about pain reporting and patient complaints, significantly influence how they manage pain. For instance, nurses who believe that patients exaggerate their pain are more likely to undertreat it, leading to poorer patient outcomes. A study has shown that negative attitude toward pain reports, particularly among minority populations, lead to delays in administering pain relief (Smith et al., 2021).
- **Knowledge gaps:** Despite the availability of guidelines, many nurses lack adequate training in pain management, particularly in newer approaches such as multimodal pain management (Taylor et al., 2023). This gap often results in inadequate or delayed pain relief, affecting patient outcomes.

## **2. Patient Satisfaction and Long-Term Outcomes Related to Pain Relief in the ER**

- **Immediate relief and patient satisfaction:** Patients' perceptions of the care they receive, particularly regarding pain relief, are strongly tied to nurse-patient interactions. When patients feel that nurses are knowledgeable and empathetic regarding their pain they will have a higher satisfaction scores and a more positive view of their overall care (Jones et al., 2020). Inadequate pain management, on the other hand, led to dissatisfaction and lower compliance with follow-up care.
- **Long-term outcomes:** Effective pain management in the ER can have a long-term impact on patients, reducing the likelihood of chronic pain development. A proper early pain intervention, guided by knowledgeable nurses, reduces the chances of chronic pain syndromes and improves functional recovery, especially in trauma patients (Miller et al., 2023). Conversely, poor pain management in the acute phase can lead to prolonged pain experiences and lower quality of life.
- **Patient trust:** Patients are more likely to trust healthcare systems and adhere to treatment when their pain is managed adequately. Patient will be able to trust nurses and this will significantly influence their willingness to report pain levels and follow-up on treatment plans, thus improving recovery outcomes (Rodriguez et al., 2022).

## **3. Reducing Disparities in Pain Management Based on Race, Gender, or Socioeconomic Factors**

- **Bias in pain assessment:** Nurses' attitudes and implicit biases can lead to disparities in pain management. A study has shown that racial and gender biases influence pain management decisions, with minority patients and women less likely to receive adequate

pain relief compared to white male patients (Garcia et al., 2021). Such disparities are often due to preconceived notions about pain tolerance or the legitimacy of pain reports from these groups.

- **Education and training in cultural competence:** Providing nurses with training in cultural competence and bias recognition has been shown to reduce disparities in pain treatment. Nurses who underwent bias reduction training are more likely to deliver equitable pain care, regardless of the patient’s race, gender, or socioeconomic background (Taylor et al., 2022).
- **Addressing socioeconomic disparities:** Socioeconomic factors also play a role in pain management, as patients from lower-income backgrounds may face additional barriers, such as access to medication and follow-up care. Nurses with a deeper understanding of these challenges are better equipped to advocate for appropriate care, ensuring that pain management resources are made available to underserved populations (Harrison et al., 2023).

## **2.7 Theoretical Framework**

A theoretical framework is a system of concepts, assumptions, expectations, beliefs, and theories that supports and informs the research. It outlines the key variables, their relationships, and how they interact to provide a clear understanding of the phenomenon being studied (Maxwell 2021).

The Gate Control Theory of Pain, proposed by Ronald Melzack and Patrick Wall in 1965, revolutionized our understanding of how pain is perceived and managed. The theory suggests that pain is not just a straightforward result of physical injury or damage to tissues but is modulated by both physiological and psychological factors through a “gate” mechanism in the spinal cord. The

Gate Control Theory of Pain is a mechanism, in the spinal cord, in which pain signals can be sent up to the brain to be processed to accentuate the possible perceived pain, or attenuate it at the spinal cord itself. The 'gate' is the mechanism where pain signals can be let through or restricted. One of two things can happen, the gate can be 'open' or the gate can be 'closed'. If the gate is open, pain signals can pass through and will be sent to the brain to perceive the pain. If the gate is closed, pain signals will be restricted from travelling up to the brain, and the sensation of pain won't be perceived. If someone experiences a painful (noxious) stimulus, the application of a non-noxious soothing or light rubbing) stimulus can help activate the gate control mechanism, and reduce the pain.

### **2.7.1 Relevance of the theory to the study**

#### **Understanding of Pain Mechanisms:**

The Gate Control Theory suggests that pain is not just a direct result of injury but is modulated by signals in the spinal cord (the "gate") that can either block or allow pain signals to reach the brain. ER nurses need to understand this mechanism to appreciate how psychological factors (stress, anxiety, etc.) and physical factors (stimulation of large nerve fibers) can affect a patient's pain perception.

#### **2. Impacts on Pain Assessment:**

If ER nurses have knowledge of this theory, they may recognize that pain isn't solely related to the severity of physical injury. This could influence their attitude towards assessing pain, understanding that factors like mental state, environment, and previous pain experiences can "open" or "close" the gate, affecting how much pain a patient feels.

### **3. Influence on Pain Management Approaches:**

ER nurses familiar with the Gate Control Theory might be more inclined to use multimodal pain management strategies. For example, combining pharmacological interventions with non-pharmacological methods such as massage, heat, or cognitive distraction, which can help "close the gate" and reduce pain perception.

### **4. Attitudes Toward Patient's Pain Reports:**

The theory supports the idea that pain is subjective, meaning two people with similar injuries may experience different levels of pain. Nurses' attitudes could be shaped to take patient-reported pain seriously, even when objective signs of injury are minimal.

### **5. Bias Reduction:**

Nurses with knowledge of Gate Control Theory might be less likely to dismiss pain complaints, especially in vulnerable populations who are often undertreated for pain (e.g., the elderly, minorities, or those with substance use histories). Their attitude towards believing and treating subjective pain could improve if they recognize the complex modulation of pain.

## **2.8 Empirical Review**

Research by Ebrahim Khalighi illustrates Pain as the most disturbing and annoying symptom experienced by medical patients, yet it is poorly managed. Despite having many researches and scientific advancement in pain management over the years, inadequate knowledge remains a major barrier to achieving effective pain management. Knowledge and attitudes of nurses towards pain management have an influence on how pain is managed.

These results showed that registered nurses had inadequate knowledge with a mean knowledge score of 64.5% and attitude regarding pain management of adult medical patients was average with a total mean attitude score of 56%. Knowledge of pain management was associated with years of experience in the nursing profession and the age of the respondents with those of older (40 years and above) scoring high on the knowledge scores scale. The main areas of concern were the lack of knowledge on pain assessment as 84% of the respondents failed to give correct tools used for pain assessment, 76% gave incorrect ideal time for pain assessment and 76% failed to identify types of pain measuring scales as well as non-pharmacologic pain-relieving therapies as only 58% correctly identified the advantages of non-pharmacological pain management measures. Disbelieve of patient's pain was noted amongst most of the registered nurses with 70% reporting the need to verify the genuineness of the pain and 90% reporting that medical patients complain of pain seeking staff attention. This could contribute to poor pain management.

The result of the research stated that registered nurses at Bindura Hospital had low knowledge levels and poor attitude regarding pain management of adult medical patients. Curricular changes aiming to promote pain management in medical patients and correcting the ingrained misconceptions are needed (Ebrahim Khalighi et al., 2019).

## **CHAPTER THREE**

### **Research Methodology**

#### **3.0 Introduction**

This chapter describes the research design used, the setting of the study, target population, sampling technique, the instruments used in collecting data, analysis and findings of the study on the knowledge and attitude of emergency room nurses towards pain management in the General Hospital Ilorin Kwara state.

#### **3.1 Research Design**

This study utilized a descriptive research design of survey type to assess the knowledge and attitude of emergency room nurses towards pain management at the Kwara state university teaching hospital Ilorin, Kwara State. The primary aim was to capture and describe the current understanding and perception held by these healthcare professionals regarding pain management practices. Importantly, the study was conducted in an observational manner, meaning that the researcher did not exert any influence over the respondents or their responses. Data collection focused on gathering accurate and unbiased information directly from the nurses to provide a comprehensive overview of their pain management knowledge and attitude. This approach ensured that the findings reflected the true perspectives of the participants, thus contributing valuable insights to the field of emergency nursing and pain management.

#### **3.2 Setting of The Study**

Kwara State University Teaching Hospital, is a tertiary healthcare facility located opposite Queen's School in Ilorin Kwara State, Nigeria. It was established in 1957, during the colonial era

in Nigeria. At the time, it was known as the Ilorin Provincial Hospital. The hospital was leased to the Federal Government in 1980 when it was used temporarily by the University of Ilorin for their medical students and other health care professional course up till 2010 where it served as a tertiary health facility. When the permanent site of the University of Ilorin Teaching Hospital was concluded, the hospital was returned back to the state government. Extensive renovation occurred between the year 2011-2012 and was renamed General Hospital Ilorin and was a secondary healthcare facility.

In June 2024, it was upgraded to a tertiary health care facility and renamed Kwara State University Teaching Hospital (KWASUTH). It is a tertiary healthcare facility and a major referral center in Kwara State, providing services to patients from across the state and other states.

The hospital provides a range of medical services including accident and emergency, surgical services, medical services, pediatrics, obstetrics and gynecology, pharmacy, physiotherapy, dental services and psychiatry.

### **3.3 Target Population**

The target populations for this study are nurses of different cadres working in the Emergency Department of Kwara State University Teaching Hospital Ilorin Kwara State ranging from Nursing Officers to Chief Nursing Officers. The target population is a total of 160 nurses working in the emergency department.

### **Inclusion Criteria**

Nurses currently working in emergency departments of the hospital, particularly those with direct patient care responsibilities.

Nurses with experience in managing patients with various types of pain.

Nurses who are willing and able to provide informed consent.

### **Exclusion Criteria**

Nurses working in other hospital departments or those not directly involved in patient care.

Nurses with little to no experience in pain management.

Nurses who are unable or unwilling to provide informed consent

### **3.4 Sample Size Determination**

For the sample size determination, the Slovin's formula was used. There are a total of 55 nurses in the accident and emergency department, 54 nurses in the gynecology department and 51 nurses in the emergency pediatrics unit of the Kwara State University Teaching Hospital Ilorin.

The sample size of the research was obtained from the target population:

$$n = \frac{N}{1 + N E^2}$$

where:

n is the sample size.

N is the population size.

e is the margin of error.

Calculation:

Population size (N=160)

Margin of error (e= 0.05) (for ±5%)

$$n=160/1+160(0.05)^2$$

$$n=160/1+160(0.0025)$$

$$n=160/1+0.4$$

$$n=160/1.4$$

$$n=114.3$$

$$n\sim 111$$

### **Calculation for attrition rate**

Number of dropout / original sample size x 100

$$160/1 + 100 (0.0025)$$

$$= 160/1+0.4$$

$$= 160/1.4$$

$$= 114.3 \sim 114$$

Number of dropouts = 3

Number of valid participants = 111

Attrition rate = Number of dropout / original sample size x 100

$$=3/160 \times 100$$

$$=1.9 \% \sim 2 \%$$

### **3.5 Sampling Technique**

The sample for this study comprises of nurses working in the Accident and Emergency unit, the emergency pediatrics unit and also the gynecology unit of the Kwara state university teaching hospital Ilorin. A convenient and purposive sampling technique was used for the study. The questionnaire was distributed to all emergency room nurses across the three shifts (morning, evening and night shift).

The sample size for this study was 111 nurses working in the emergency units of the hospital.

### **3.6 Instrument for Data Collection**

The instrument utilized for this study was a structured questionnaire specifically designed to elicit critical information regarding the knowledge and attitude of emergency room nurses towards pain management. The questionnaire was divided into five sections:

- **Section A:** This section gathered demographic characteristics about the participants, including age, gender, years of experience, and educational background.
- **Section B:** This section focused on assessing the knowledge and general awareness of pain management practices among the nurses.
- **Section C:** This section explored the attitude of emergency room nurses towards pain management.
- **Section D:** this section looked at the factors influencing emergency room nurses' knowledge and attitude towards pain management.
- **Section E:** this section focuses on the Challenges in Pain Management Faced by Emergency Room Nurses.

Efforts were made to ensure that the instructions for the questionnaire were clearly stated and easily understandable, facilitating accurate and comprehensive responses from the participants.

### **3.7 Validity of The Instrument**

To ensure that the research instrument accurately reflected the purpose of the study, both face and content validity were established. The questionnaire used to assess the knowledge and attitude of emergency room nurses towards pain management was reviewed by two senior nursing lecturers

and one clinical pain management specialist. These experts assessed the instrument for its clarity, relevance, and alignment with the research objectives.

Their evaluation ensured that the questionnaire items were appropriate for capturing the key variables: nurses' knowledge and their attitudes towards effective pain assessment and management practices in emergency settings. Based on the reviewers' suggestions, necessary revisions were made to improve the structure, wording, and coverage of the items. This process confirmed that the instrument was valid for use among emergency room nurses in Kwara State University Teaching Hospital.

### **3.8 Reliability of The Instrument**

To assess the reliability of the research instrument, a pilot study was conducted among 15 emergency room nurses working in another hospital within Kwara State, who were not part of the main study population. The pilot was conducted to evaluate the internal consistency of the questionnaire, particularly the items measuring knowledge levels and attitudes toward pain management.

The data collected during the pilot test were analyzed using Cronbach's Alpha, a statistical method used to measure internal reliability. The result yielded a Cronbach's Alpha coefficient of 0.82, indicating a high level of internal consistency. This value exceeds the standard benchmark of 0.70, suggesting that the instrument is both stable and reliable for the intended study population.

### **3.9 Method of Data Collection**

An introductory letter was collected from the school authority which was given to the Director of Nursing Services who subsequently directed the researcher to the Chief Nursing Officer in the unit. Copies of the questionnaire were administered to the respondents after introducing the

researcher to the selected respondents. The questionnaires were administered to the subjects on individual basis and were filled under the supervision of the researcher.

### **3.10 Method of Data Analysis**

The collected data were compiled and analyzed using a combination of simple percentages and frequencies, with the results presented in tables and figures including pie chart. Descriptive statistics were employed to analyze the demographic data and address the three research questions, providing a clear overview of the participants' characteristics and responses. Specifically, the independent sampled t-test was used to determine the significance of relationships within the data. This comprehensive approach ensured a thorough analysis of the study findings.

### **3.11 Ethical Consideration**

An introductory letter was obtained from the Thomas Adewumi University and presented to the Head of the Accident and Emergency Department. The purpose of the study was thoroughly explained to both the department authorities and the respondents to ensure clear understanding before distributing the questionnaires. The researcher emphasized that all provided information would be kept strictly confidential and used solely for academic and research purposes. Respondents were assured that their responses would be treated with the utmost confidentiality, maintaining their privacy and trust throughout the study.

**CHAPTER FOUR**  
**PRESENTATION OF DATA AND ANALYSIS**

**Introduction**

This chapter analysis the data obtained from the administration of the questionnaire titled “knowledge and attitude of emergency room nurses towards pain management in Kwara State University Teaching Hospital Ilorin Kwara State”. A total number of 111 nurses working at the accident and emergency department participated in providing response to the questionnaire. The response provided on the questionnaires were validated for completeness and inappropriate responses. The analysis is divided into three sections; the demographic variables, research questions and test of hypothesis with the aid of Statistical Package for Social Sciences (SPSS) version 25.

**Section A: Demographic Data Presentation**

**Table 4.1: Distribution of respondents by Gender**

<b>Gender</b>	<b>N</b>	<b>Percent (%)</b>
Male	24	21.6
Female	87	78.4
<b>Total</b>	<b>111</b>	<b>100.0</b>

Table 1 presents the distribution of respondents by gender. It was revealed that 24(21.6%) of the respondents were males and 87(78.4%) were females. This indicates that majority of the participant of the study were females.

**Table 4.2: Distribution of respondents by Age**

<b>Age</b>	<b>N</b>	<b>Percent (%)</b>
20 – 30 years	66	59.5
31 – 40 years	14	12.6
41 – 50 years	28	25.2
51 years and above	3	2.7
<b>Total</b>	<b>111</b>	<b>100.0</b>

Table 2 presents the distribution of respondents by age. It indicates that 66(59.5%) were between the ages of 20 - 30 years, 14(12.6%) were between 31 – 40 years, 28(25.2%) were between 41 – 50 years and 3(2.7%) was 51 years and above. This implies that the majority of the participants of this study were between 20 – 30 years.

**Table 4.3: Distribution of Respondents by Years of Nursing Experience**

<b>Years of Nursing Experience</b>	<b>N</b>	<b>Percent (%)</b>
0 – 5 years	31	27.9
6 – 10 years	22	19.8
11 – 15 years	58	52.3
16 years and above	0	0
<b>Total</b>	<b>111</b>	<b>100.0</b>

Table 3 presents the distribution of respondents by years of nursing experience. It was indicated that 31(27.9%) have had between 0 – 5 years of experience, 22(19.8%) between 6 – 10 years, 58(52.3%) had between 11 – 15 years of nursing respectively.

**Table 4.4: Distribution of Respondents by Level of Education**

<b>Level of Education</b>	<b>N</b>	<b>Percent (%)</b>
Diploma	30	27.0
Bachelor's Degree	42	37.8
Master's Degree	34	30.6
Others	5	4.5
<b>Total</b>	<b>111</b>	<b>100.0</b>

Table 4 presents the distribution of respondents by level of education. It was indicated that 30(27.0%) had Diploma, 42(37.8%) had Bachelor's Degree, 34(30.6%) had Master's Degree and 5(4.5%) had other level of education not stated in the study.

**Table 4.5: Distribution of Respondents by Years of Working in the Emergency Department**

<b>Years of Working in the Emergency Department</b>	<b>N</b>	<b>Percent (%)</b>
0 – 2 years	50	45.0
3 – 5 years	46	41.4
6 – 10 years	12	10.8
11 years and above	3	2.7
<b>Total</b>	<b>111</b>	<b>100.0</b>

Table 5 presents the distribution of respondents by years of working in the emergency department. It was indicated that 50(45.0%) had between 0 – 2 years of experience, 46(41.4%) have had between 3 – 5 years of experience, 12(10.8%) have had between 6 – 10 years of experience and 3(2.7%) have had 11 years or above.

## Section B: Answer to Research Questions

Descriptive statistics of frequency counts and percentages was used to answer all research questions generated for the study.

**Research Question 1:** What is the level of knowledge of nurses on pain management in Kwara State University Teaching Hospital Ilorin?

**Table 4.6: Level of Knowledge of Nurses on Pain Management**

	How knowledgeable are you about:	Level of Agreement				Mean	Std
		VK	K	LK	NK		
1	the different types of pain (e.g., acute, chronic, nociceptive, neuropathic)	61 (55.0%)	50 (45.0%)	0 (0%)	0 (0%)	3.55	.50
2	the physiological signs that indicates a patient is in pain (e.g., increased heart rate, sweating)	60 (54.1%)	43 (38.7%)	8 (7.2%)	0 (0%)	3.47	.63
3	interpreting non-verbal signs of pain in patients who cannot communicate	39 (35.1%)	59 (53.2%)	13 (11.7%)	0 (0%)	3.23	.64
4	using non-pharmacological interventions (e.g., relaxation techniques, cold/heat therapy) for pain management	60 (54.1%)	51 (45.9%)	0 (0%)	0 (0%)	3.54	.50
5	the potential side effects and risks of opioid medications	53 (47.7%)	52 (46.8%)	6 (5.4%)	0 (0%)	3.42	.59
6	the hospital's protocols and guidelines for pain management	41 (36.9%)	50 (45.0%)	20 (18.0%)	0 (0%)	3.19	.72
7	pain management for pediatric and geriatric patients	25 (22.5%)	71 (64.0%)	15 (13.5%)	0 (0%)	3.09	.59
8	combining medications with non-medication methods to improve outcomes	20 (18.0%)	39 (35.1%)	41 (36.9%)	11 (9.9%)	2.61	.89
<b>TOTAL</b>						<b>3.26</b>	<b>0.63</b>

**Decision Value:** *Low* = 0.00 – 1.99, *Moderate* = 2.00 – 2.99, *High* = 3.00 – 4.00

Table 6 indicates the level of knowledge of nurses on pain management in Kwara State University Teaching Hospital Ilorin. It was revealed that all the items received a means score above the benchmark of 2.50 with the knowledge about “the different types of pain (e.g., acute, chronic,

nociceptive, neuropathic)” and “using non-pharmacological interventions (e.g., relaxation techniques, cold/heat therapy) for pain management” having the highest mean score of  $\bar{x} = 3.55$  and “combining medications with non-medication methods to improve outcomes” with lowest mean score of  $\bar{x} = 2.61$ . Based on the value of the Grand Mean (3.26 out of 4.00 maximum value obtainable) which falls within the decision value for **High**, it can be inferred that the level of knowledge of nurses on pain management in Kwara State University Teaching Hospital Ilorin is **high**.

**Research Question 2:** What are the attitude of nurses towards pain management in Kwara State University Teaching Hospital?

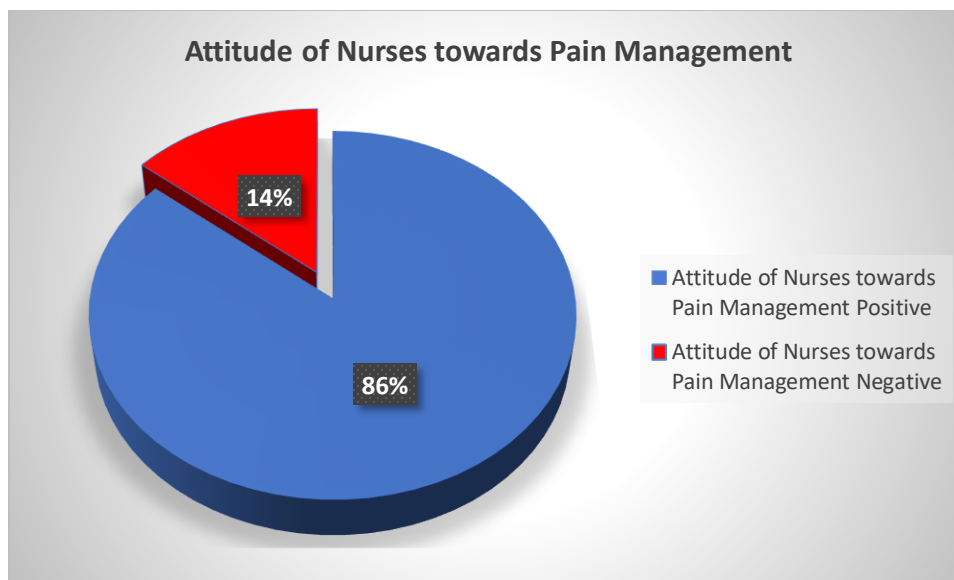
**Table 4.7: Attitude towards Pain Management**

		Level of Agreement				Mean	Std	Overall
		SA	A	D	SD			
1	I regularly assess my patients' pain levels during their stay in the emergency room	58 (52.3%)	53 (47.7%)	0 (0%)	0 (0%)	3.52	.50	88.1%
2	I administer pain relief medications as soon as I recognize that a patient is in pain	46 (41.4%)	62 (55.9%)	3 (2.7%)	0 (0%)	3.39	.54	84.7%
3	I use standardized pain assessment tools when evaluating patients' pain	57 (51.4%)	51 (45.9%)	3 (2.7%)	0 (0%)	3.49	.55	87.2%
4	I reassess patients' pain levels after administering pain relief measures	59 (53.2%)	50 (45.0%)	2 (1.8%)	0 (0%)	3.51	.53	87.9%
5	I involve patients in the decision-making process when determining the best method for pain management	51 (45.9%)	57 (51.4%)	3 (2.7%)	0 (0%)	3.43	.55	85.8%
6	I follow up with patients to evaluate the effectiveness of the pain relief methods I used	48 (43.2%)	57 (51.4%)	6 (5.4%)	0 (0%)	3.38	.58	84.5%
<b>TOTAL</b>						<b>3.45</b>	<b>0.54</b>	<b>86.4%</b>

**Decision Value:** *Negative* = 0.00 – 2.49, *Positive* = 2.50 – 4.00

Table 7 indicates the attitude of nurses towards pain management. It was revealed that all the items received a means score above the benchmark of 2.50 with “I regularly assess my patients' pain levels during their stay in the emergency room” having the highest mean score of  $\bar{x} = 3.52$  and “I follow up with patients to evaluate the effectiveness of the pain relief methods I used” with lowest mean score of  $\bar{x} = 3.38$ . Based on the value of the Grand Mean (3.45 out of 4.00 maximum value obtainable) which falls within the decision value for *Positive*, it can be inferred that the attitude of nurses towards pain management in Kwara State University Teaching Hospital is **positive**.

**Fig. 4.1: Attitude towards Pain Management**



**Research Question 3:** What are the factors influencing emergency room nurses' knowledge and attitudes towards pain management?

**Table 4.8:** Factors influencing emergency room nurses' knowledge and attitudes towards pain management

	Items	Level of Agreement				Mean	SD	Rank
		SA	A	D	SD			
1	The availability of resources (e.g., manuals, workshops) helps me understand pain management	17 (15.3%)	11 (9.9%)	64 (57.7%)	19 (17.1%)	2.23	.91	5 <sup>th</sup>
2	The experience I have influences my confidence in managing patients' pain	21 (18.9%)	65 (58.6%)	17 (15.3%)	8 (7.2%)	2.89	.79	1 <sup>st</sup>
3	I regularly receive updates about new pain management protocols and guidelines	12 (10.8%)	11 (9.9%)	64 (57.7%)	24 (21.6%)	2.10	.86	6 <sup>th</sup>
4	The availability of pain assessment tools in the emergency room improves my knowledge of how to assess pain	14 (12.6%)	46 (41.4%)	37 (33.3%)	14 (12.6%)	2.54	.87	3 <sup>rd</sup>
5	The frequency of encounters with patients improves my knowledge and attitude toward pain management	22 (19.8%)	28 (25.2%)	50 (45.0%)	11 (9.9%)	2.55	.92	3 <sup>rd</sup>
6	Time constraints in the emergency room affect my ability to stay updated on pain management practices	20 (18.0%)	44 (39.6%)	39 (35.1%)	8 (7.2%)	2.68	.85	2 <sup>nd</sup>
	<b>TOTAL</b>					<b>2.49</b>	<b>0.87</b>	

Table 8 shows responses on the factors influencing emergency room nurses' knowledge and attitudes. The mean analysis conducted revealed that the factors were: experience influencing confidence in managing patients' pain (M=2.89), time constraints in the emergency room affecting ability to stay updated on pain management practices (M=2.68) frequency of encounters with patients (M=2.55) and availability of pain assessment tools in the emergency room (M=2.54).

**Research Question 4:** What are the challenges in pain management faced by emergency room nurses?

**Table 4.9: Challenges in Pain Management Faced by Emergency Room Nurses**

	Items	Level of Agreement				Mean	Std	Rank
		SA	A	D	SD			
1	Lack of adequate pain assessment tools	18 (16.2%)	44 (39.6%)	39 (35.1%)	10 (9.0%)	2.63	.86	2 <sup>nd</sup>
2	The absence of regular pain management training	6 (5.4%)	40 (36.0%)	56 (50.5%)	9 (8.1%)	2.39	.71	3 <sup>rd</sup>
3	Language barriers with patients making it difficult to assess and manage their pain effectively	6 (5.4%)	31 (27.9%)	61 (55.0%)	13 (11.7%)	2.27	.73	5 <sup>th</sup>
4	The high volume of patients limiting my ability to provide adequate pain management to every patient	22 (19.8%)	58 (52.3%)	20 (18.0%)	11 (9.9%)	2.82	.86	1 <sup>st</sup>
5	Limited availability of pain medications, especially opioids	13 (11.7%)	21 (18.9%)	66 (59.5%)	11 (9.9%)	2.32	.81	4 <sup>th</sup>
<b>TOTAL</b>						<b>2.48</b>	<b>0.79</b>	

Table 9 indicates the challenges in pain management faced by emergency room nurses. Accordingly, the major challenges were high volume of patients limiting my ability to provide adequate pain management to every patient (M=2.82) and language barriers with patients (M=2.27).

### Hypotheses Testing

**Hypothesis One:** *There is no significant difference in the knowledge of male and female nurses on pain management in the emergency room*

**Table 4.10: t-test analysis on differences in the knowledge of male and female nurses on pain management in the emergency room**

Gender	N	Mean	SD	df	Cal. t.value	Crit. T-value	p-value	Decision
Male	24	3.12	.33					
				109	*1.02	2.02	.30	<b>Not Rejected</b>
Female	87	3.00	.57					

Sig. p<0.05

Table 10 shows a calculated t-value of 1.02, a critical t-value of 2.02 and a p-value of .30. The critical t-value of 2.02 is greater than the calculated t-value of 1.02 at 0.05 level of significance. On this basis, the null the hypothesis is not rejected. This implies that there is no significant difference in the knowledge of male and female nurses on pain management in the emergency room.

**Hypothesis Two:** *There is no significant difference in the attitude of male and female nurses on pain management in the emergency room*

**Table 4.11: t-test analysis on differences in the attitude of male and female nurses on pain management in the emergency room**

Gender	N	Mean	SD	df	Cal. t.value	Crit. T-value	p-value	Decision
Male	24	3.33	.48					
				109	*1.42	2.02	.15	<b>Not Rejected</b>
Female	87	3.14	.58					

Sig. p<0.05

Table 11 shows a calculated t-value of 1.42, a critical t-value of 2.02 and a p-value of .15. The critical t-value of 2.02 is greater than the calculated t-value of 1.42 at 0.05 level of significance. On this basis, the null the hypothesis is not rejected. This implies that there is no significant difference in the attitude of male and female nurses on pain management in the emergency room.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter comprises of the discussion of findings based on the results of the study, summary of the research work, conclusion, recommendations as well as suggestion for further studies.

#### 5.1 Discussion of findings

Analysis of research question one indicated the level of knowledge of nurses on pain management in Kwara State University Teaching Hospital Ilorin. It was revealed nurses in Kwara State University Teaching Hospital Ilorin had high knowledge of pain management. This indicates that nurses were knowledgeable about the different types of pain (e.g., acute, chronic, nociceptive, neuropathic), using non-pharmacological interventions (e.g., relaxation techniques, cold/heat therapy) for pain management, the physiological signs that indicates a patient is in pain (e.g., increased heart rate, sweating), the potential side effects and risks of opioid medications amongst others. Ebrahim Khalighi et al. (2019) whose study concluded that registered nurses had low knowledge levels is in contrast with this study findings.

Nurses had positive attitude towards pain management in Kwara State University Teaching Hospital as indicated in the analysis. This implies that nurses regularly assess patients' pain levels during their stay in the emergency room, reassess patients' pain levels after administering pain relief measures, use standardized pain assessment tools when evaluating patients' pain, involve patients in the decision-making process when determining the best method for pain management, administer pain relief medications as soon as they recognize that a patient is in pain and follow up with patients to evaluate the effectiveness of the pain relief methods used. However, the study

findings of Ebrahim Khalighi et al. (2019) revealed that registered nurses had poor attitude regarding pain management of adult medical patients.

Analysis of research question three revealed the factors influencing emergency room nurses' knowledge and attitudes towards pain management. Amongst the identified factors were experience in managing patients' pain, time constraints in the emergency room affecting ability to stay updated on pain management practices, frequency of encounters with patients and availability of pain assessment tools in the emergency room. Smith et al. (2021) study also revealed that follow-up pain assessments may be delayed or skipped, affecting the accuracy of treatment adjustments due to time constraint.

The study also assessed the challenges in pain management faced by emergency room nurses in Kwara State University Teaching Hospital. It was revealed that high volume of patients limiting ability to provide adequate pain management to every patient and language barriers with patients were the major challenges in pain management faced by emergency room nurses in Kwara State University Teaching Hospital. Similarly, Rodriguez et al. (2022) identified lack standardized pain management protocols, leading to inconsistent practices among healthcare providers.

Hypothesis one revealed that there was no significant difference in the knowledge of male and female nurses on pain management in the emergency room. This suggests that both genders receive similar education and training on pain management practices. This uniformity in knowledge implies that gender is not a determining factor in the professional competence of nurses in managing pain. This is in tandem with the research made by Harrison et al. (2023) revealing that gender difference was not found in the attitude of nurses on pain management.

Hypothesis two revealed that there was no significant difference in the attitude of male and female nurses on pain management in the emergency room. The lack of a significant difference in the

attitudes of male and female nurses toward pain management in the emergency room implies that both genders exhibit similar levels of empathy, responsiveness, and approach to patient pain relief. This suggests that gender does not influence the way nurses perceive or respond to patients' pain. A study by Garcia et al. (2021) shown that racial and gender biases influence pain management decisions, with minority patients and women less likely to receive adequate pain relief compared to white male patients.

### **Implication of Findings to Nursing**

1. The high level of knowledge among nurses provides a strong foundation for delivering effective pain management in clinical practice.
2. Positive attitudes among nurses are central for patient-centered care, as they are more likely to engage in proactive pain assessment and management.
3. Time constraints and language barrier are a critical barrier to optimal pain management in the emergency room necessitating restructuring of shifts or employing more staff.
4. High patient volume can compromise the quality of pain management due to overwhelming nurse-patient ratios.
5. The lack of gender disparity in knowledge highlights that both male and female nurses are equally equipped to manage pain.
6. Since gender does not influence attitudes toward pain management, it is important to maintain this equitable approach.

### **Limitation of the Study**

1. The study focused on a specific set of healthcare facilities within Kwara State, which may limit the generalizability of the findings to other healthcare settings

2. The number of nurses involved in the study was small, which may affect the statistical power and the ability to generalize the results to the wider nursing population.

### **Summary of the Findings**

Pain is multidimensional, encompassing emotional and sensory elements, and should be regularly assessed as part of vital signs. Despite recognizing the importance of pain management, nurses' knowledge, especially in pharmacology and pain assessment, is often insufficient, affecting patient outcomes. Therefore, this study assessed the knowledge and attitudes of registered nurses towards pain management in the Emergency Department at Kwara State University Teaching Hospital, Ilorin.

The study was divided into five chapters with chapter one introducing the study by discussing variables relating to the topic of discussion. The first chapter proceeded to discussing research problems, objectives of the study, research questions, research hypothesis, significance of the study, scope of the study and operational definition of terms. Chapter two encompasses four sections including introduction, conceptual review, empirical review and theoretical review.

Chapter three discusses the methodology applied in this study. It encompasses the research design, setting of the study, population, sample size, sampling techniques, instrument for data collection, reliability of the instrument, method of data analysis and ethical consideration. The study is descriptive research of the survey type that used questionnaire as instrument of data collection.

The result obtained from data analysis was present in tables in Chapter four. The results revealed the aims of the study which is the assessment of knowledge and attitude of emergency room nurses towards pain management in Kwara state university hospital Ilorin.

## **Conclusion**

The study revealed that nurses at Kwara State University Teaching Hospital have a high level of knowledge and a positive attitude towards pain management, regardless of gender. However, factors such as experience, time constraints, and the availability of pain assessment tools significantly influence their ability to provide effective pain management. Major challenges identified included the high patient volume which limits individualized pain care, and language barrier. To address these issues, interventions at various levels, including policy improvements, increased resources, and continuous professional development, are essential for enhancing the quality of pain management in emergency settings.

## **Recommendations**

The following recommendations were made based on the results obtained.

1. The hospital management should provide continuous training and professional development opportunities for nurses on the latest pain management practices to ensure they maintain their high knowledge and stay updated on advancements in the field.
2. The Nursing Supervisors should encourage and sustain the positive attitude of nurses toward pain management by recognizing and rewarding excellent pain management practices and fostering a supportive work environment in the hospital.
3. The government and health authorities should allocate more resources to ensure the availability of adequate pain assessment tools in emergency rooms and reduce time constraints by addressing staffing shortages to improve the overall effectiveness of pain management.

4. The hospital administration should implement measures to manage the high patient volume by optimizing staff scheduling, adopting a triage system for prioritizing critical pain cases, and increasing the availability of pain management resources.
5. Nursing educators should continue developing gender-neutral pain management training that focuses on equal opportunities for both male and female nurses to enhance their knowledge and attitudes.

#### **Suggestion for Further Study**

1. Future studies could conduct a comparative study on pain management practices and challenges in different healthcare facilities within Kwara State.
2. Similar studies can consider involving larger number of nurses.

## REFERENCES

- Alexandrina de Jesus SL, Jacinta PM (2013) Pain: Knowledge and attitudes of nursing students, 1 year follow-up. *Text Context Nurs* 22:311-317.
- Bernardi M, Catania G, Lambert A, Tridello G, Luzzani M (2007) Knowledge and attitudes about cancer pain management: a national survey of Italian oncology nurses. *Eur J Oncol Nurs* 11: 272-279.
- Brain Stimulation. (2021). The Efficacy of TMS in Chronic Pain Management. [Link](#)
- Briggs AM, Woolf AD, Dreinhöfer K, Homb N, Hoy DG, Kopansky- Giles D, Åkesson K, March L. Reducing the global burden of musculoskeletal conditions. *Bull World Health Organ* 2018; 96: 366–368.
- Britannica, T. Editors of Encyclopaedia (2021, April 29). nervous system summary.
- Brown CA, et al. (2020). The role of relaxation techniques in chronic pain management: An updated review. *Journal of Clinical Psychology*, 76(8), 1454-1466. DOI: 10.1002/jclp.23012
- Brown, L. & Pigneri, M. (2022). Effective Pain Management Strategies in the Emergency Department: An Updated Review. *Emergency Medicine Journal*, 39(3), 168-174. *Emergency Medicine Journal*
- Campbell, C.M., & Edwards, R.R. (2020). Non-Pharmacologic Pain Management: A Comprehensive Review. *Pain Medicine*, 21(1), 96-112. *Pain Medicine*
- Davis KD, et al. (2022). Operant conditioning in pain management: Current understanding and future directions. *Journal of Pain Research*, 15, 1201-1215. DOI: 10.2147/JPR.S324481
- Eccleston, C., Fisher, E., Vervoort, T., & Crombez, G. (2021). Psychological Interventions

for Chronic Pain in Adults: A Systematic Review and Meta-Analysis. *Pain*, 162(9), 2347-2361. [Pain](#)

- Encyclopedia Britannica. <https://www.britannica.com/summary/nervous-system>
- Frontiers in Neurology. (2022). Cognitive and Emotional Interventions in Pain Modulation: An fMRI Study. [Link](#)
- Garcia, R., et al. (2021). "Addressing Racial and Gender Disparities in Pain Management in Emergency Rooms." *Journal of Pain Research*.
- Google Scholar Cross ref PubMed WorldCat
- Gross DP, Russell AS, Ferrari R, Battie MC, Schopflocher D, Hu R, Waddell G, Buchbinder R. Evaluation of a Canadian back pain mass media campaign. *Spine* 2010; 35(8): 906 –913.49.
- Harrison, L., et al. (2023). "Socioeconomic Disparities in Pain Management: A Focus on Emergency Room Care." *Journal of Health Disparities Research and Practice*.
- Jackson T, Thomas S, Stabile V, Shotwell M, Han X, McQueen K. A systematic review and meta-analysis of the global burden of chronic pain without clear etiology in low- and middle-income countries: trends in heterogeneous data and a proposal for new assessment methods. *Anesthesia & Analgesia* 2016; 123(3): 739-748
- Johnson, T., et al. (2022). "Improving Pain Management in Emergency Rooms Through Nurse Education: A Controlled Trial." *Journal of Pain and Symptom Management*.
- Engel, G. L. (1977). The need for a new medical model: a challenge for biomedicine. *Science*, 196(4286), 129-136.
- Jones, K., et al. (2020). "Patient Satisfaction in the Emergency Room: The Role of Effective Pain Management by Nursing Staff." *Journal of Emergency*

Medicine.

- Linton SJ, Nicholas M, Shaw W. Why wait to address high-risk cases of acute low back pain? A comparison of stepped, stratified, and matched care. *Pain* 2018; 159: 2437-2441.
- Miller A (2012) *Hospice Nurses - Attitudes and Knowledge about Pain Management*. A thesis submitted in partial fulfillment of the requirements for the degree of Masters of Science in Nursing College of Nursing. University of South Florida, USA.
- Miller, S., et al. (2023). "Long-Term Outcomes of Trauma Patients: The Role of Acute Pain Management in the Emergency Room." *Annals of Emergency Medicine*.
- National Institutes of Health. Pain management. Research portfolio online reporting tools 2015. <https://report.nih.gov/nihfactsheets/ViewFactSheet.aspx?csid=57>.
- Orr PM et al. *Crit Care Nurs Clin N Am*. 2017;29:407–18
- Paschali, M., Lazaridou, A., Edwards, R.R. (2020). *Clinical and Research Tools for Pain Assessment*. In: Mao, J. (eds) *Spine Pain Care*. Springer, Cham.  
[https://doi.org/10.1007/978-3-030-27447-4\\_6](https://doi.org/10.1007/978-3-030-27447-4_6)
- P Taylor, L., et al. (2023). "Multimodal Pain Management in Emergency Settings: Bridging Knowledge Gaps Among Nursing Staff." *Journal of Clinical Nursing*.opulations in Emergency Departments." *Pain Medicine*.
- Rodriguez, M., et al. (2022). "Patient Trust and Pain Management in the ER: The Role of Nurse-Patient Communication." *Healthcare*.
- Smith, A., et al. (2021). "Nurses' Attitudes Towards Pain Management: The Impact on Minority
- Smith, C., Kane, M. (2023). *Implementing Standardized Pain Assessment Protocols in*

Emergency Departments: A Quality Improvement Initiative. *Western Journal of Emergency Medicine*, 24(2), 84-91. *Western Journal of Emergency Medicine*

- Todd, K.H., Cowan, P., Kelly, N., & Homel, P. (2021). Pain Management in the Emergency Department: A Multicenter Study of Patient Perspectives. *Pain Medicine*, 22(5), 957-966. *Pain Medicine*
- Wenig CM, Schmidt CO, Kohlmann T, Schweikert B. Costs of back pain in Germany. *European Journal of Pain* 13 (2009) 280–286.
- Williams AC, et al. (2022). Behavioral activation in chronic pain: A systematic review of its application and effectiveness. *Pain Medicine*, 23(4), 543-556. DOI: 10.1093/pm/pnab321
- World Health Organization (WHO). WHO global strategy on integrated people-centred health services 2016–2026: placing people and communities at the centre of health services. WHO, Geneva, 2015.
- World Health Organization (WHO). Key learning on Health in All Policies implementation from around the world – Information Brochure. WHO, Geneva, 2018 (<https://apps.who.int/iris/bitstream/handle/10665/272711/WHO-CED->

**APPENDIX**

**QUESTIONNAIRE**

**THOMAS ADEWUMI UNIVERSITY**

**OKO-IRESE, KWARA STATE.**

**KNOWLEDGE AND ATTITUDE OF EMERGENCY ROOM NURSES TOWARDS PAIN  
MANAGEMENT IN KWARA STATE UNIVERSITY TEACHING HOSPITAL ILORIN  
KWARA STATE.**

Dear Respondent,

I am a nursing student of Thomas Adewumi University, Oko, Kwara State. I am carrying out research on the knowledge and attitude of emergency room nurses towards pain management. This questionnaire is designed to get your responses concerning this research and I hope to get your full participation in filling this questionnaire. All information gathered shall be used purely for the purpose of the research only and shall be treated with confidentiality. Thank you.

*Opara Chigaemezu Precious*

**Section A: Demographics**

1. Gender: a) Male [  ]      b) Female [  ]
2. Age: a) 20 – 30 [  ]      b) 31 – 40 [  ]      c) 41 – 50 [  ]      d) 51 & above [  ]
3. Years of experience: a) 0 – 5 years [  ]      b) 6 – 10 years [  ]      c) 11 – 15 years [  ]      d) 16 years and above
4. Level of education: a) Diploma [  ]      b) Bachelor's Degree [  ]      c) Master's Degree [  ]      d) Other (please specify) \_\_\_\_\_
5. How long have you been working in the emergency department? a) 0 – 2 years [  ]  
b) 3 – 5 years [  ]      c) 6 – 10 years [  ]      d) 11 years and above [  ]

### Section B: Knowledge of Nurses towards Pain Management

Kindly tick (✓) the option in front of each item that is most applicable to you from section B, using the keys below. They are: VK --- Very Knowledgeable, K --- Knowledgeable, LK --- Less Knowledgeable and NK ---- Not Knowledgeable

S/N	How knowledgeable are you about:	VK	K	LK	NK
6	the different types of pain (e.g., acute, chronic, nociceptive, neuropathic)				
7	the physiological signs that indicate a patient is in pain (e.g., increased heart rate, sweating)				
8	interpreting non-verbal signs of pain in patients who cannot communicate				
9	using non-pharmacological interventions (e.g., relaxation techniques, cold/heat therapy) for pain management				
10	the potential side effects and risks of opioid medications				
11	the hospital's protocols and guidelines for pain management				
12	pain management for pediatric and geriatric patients				
14	combining medications with non-medication methods to improve outcomes				

### Section C: Attitude towards Pain Management

Kindly tick (✓) the option in front of each item that is most applicable to you from section C, using the keys below. They are: SA --- Strongly Agree, A --- Agree, D --- Disagree and SD ---- Strongly Disagree

S/N		SA	A	D	SD
15	I regularly assess my patients' pain levels during their stay in the emergency room				
16	I administer pain relief medications as soon as I recognize that a patient is in pain				
17	I use standardized pain assessment tools when evaluating patients' pain				
18	I reassess patients' pain levels after administering pain relief measures				
19	I involve patients in the decision-making process when determining the best method for pain management				
20	I follow up with patients to evaluate the effectiveness of the pain relief methods I used				

#### Section D: Factors Influencing Emergency Room Nurses' Knowledge and Attitudes

Kindly tick (✓) the option in front of each item that is most applicable to you from section D, using the keys below. They are: SA --- Strongly Agree, A --- Agree, D --- Disagree and SD ---- Strongly Disagree

S/N		SA	A	D	SD
21	The availability of resources (e.g., manuals, workshops) helps me understand pain management				
22	The experience I have influences my confidence in managing patients' pain				

23	I regularly receive updates about new pain management protocols and guidelines				
24	The availability of pain assessment tools in the emergency room improves my knowledge of how to assess pain				
25	The frequency of encounters with patients improves my knowledge and attitude toward pain management				
26	Time constraints in the emergency room affect my ability to stay updated on pain management practices				

**Section E: Challenges in Pain Management Faced by Emergency Room Nurses**

Kindly tick (√) the option in front of each item that is most applicable to you from section E, using the keys below. They are: SA --- Strongly Agree, A --- Agree, D --- Disagree and SD ---- Strongly Disagree

S/N		SA	A	D	SD
27	Lack of adequate pain assessment tools				
28	The absence of regular pain management training				
29	Language barriers with patients making it difficult to assess and manage their pain effectively				
30	The high volume of patients limiting my ability to provide adequate pain management to every patient				
31	Limited availability of pain medications, especially opioids				