KNOWLEDGE AND PERCEPTION ON THE CONSEQUENCES OF DELAYED PRESENTATION AMONG PARENTS ATTENDING CHILDREN EMERGENCY WARD IN A TERTIARY HEALTH INSTITUTION BENIN CITY

BY

ADUBAL E ANTHONIA

BMS2005055

FACULTY OF NURSING SCIENCES,

COLLEGE OF MEDICAL SCIENCES

UNIVERSITY OF BENIN

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OCTOBER , 2025.

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IN PARTIAL FULFILLMENT OF THE AWARD OF THE DEGREE OF

BACHELOR OF NURSING SCIENCE, FACULTY OF NURSING SCIENCES,

COLLEGE OF MEDICAL SCIENCES

UNIVERSITY OF BENIN, BENIN CITY.

OCTOBER , 2025

DECLARATION

This is to declare that this research project titled **"KNOWLEDGE AND PERCEPTION ON THE CONSEQUENCES DELAYED PRESENTATION AT THE CHILDREN EMERGENCY WARD IN A TERTIARY HEALTH INSTITUTION BENIN CITY"** will be solely carried out by **ADUBALE ANTHONIA**. It will solely be the result of my work except where stated otherwise by reference or acknowledgement as being derived from other person (s) or resources.

MATRICULATION NUMBER: BMS2005055

FACULTY/COLLEGE : NURSING SCIENCE, COLLEGE OF MEDICAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE.

Signature: _____

Date: _____

CERTIFICATION

This is to certify that this research project titled **" KNOWLEDGE AND PERCEPTION ON THE CONSEQUENCES DELAYED PRESENTATION AT THE CHILDREN EMERGENCY WARD IN A TERTIARY HEALTH INSTITUTION BENIN CITY"** will be carried out by **ADUBALE ANTHONIA** with **Mat No. BMS2005055** in the Faculty Of Nursing Sciences, under the supervision of **Mrs. R. LAWAL.**

Mrs. R. LAWAL _____

(Project Supervisor) Sign & Date

PROF (MRS.) C. E. OMOROGBE _____

Head of Department of Sign & Date
Medical surgical nursing

_____ _____

External Examiner Sign & Date

ABSTRACT

Delayed presentation to emergency services represents a significant challenge in paediatric healthcare, often resulting in adverse outcomes and increased mortality. Understanding parental knowledge and perceptions regarding delayed presentation is crucial for developing effective interventions to improve timely care-seeking behaviour. This study aimed to assess the knowledge and perception of the consequences of delayed presentation among parents attending the children's emergency unit at the University of Benin Teaching Hospital (UBTH), Edo State, Nigeria. This descriptive cross-sectional survey utilized purposive sampling technique to recruit 145 parents attending the children's emergency unit at UBTH. A structured questionnaire was used to collect data on socio-demographic characteristics, knowledge of consequences of delayed presentation, perception of delayed presentation, and factors responsible for delayed presentation. Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) version 26.0. The study achieved a 96.5% response rate with 140 valid questionnaires. Most respondents were female (62.9%), married (68.6%), and had tertiary education (37.9%). The findings revealed that 74% of parents demonstrated good knowledge of the consequences of delayed presentation, while 69% exhibited positive perceptions regarding the importance of timely emergency care. Financial constraints (mean=3.2), hope for home recovery (mean=3.2), and transportation difficulties (mean=3.1) were identified as the most influential factors responsible for delayed presentation. Statistical analysis showed no significant relationship between knowledge and perception of delayed presentation among parents ($\chi^2=1.12$, $p=0.29$). Despite good knowledge and positive perceptions among most parents regarding the consequences of delayed presentation, socioeconomic factors continue to significantly influence timely healthcare-seeking behaviours for paediatric emergencies. Health education programs should be intensified to reach the 26% of parents with poor knowledge. Healthcare policies addressing financial barriers to emergency care access should be implemented. Community-based interventions targeting transportation challenges and development of triage systems to reduce hospital waiting times would help improve timely presentation to paediatric emergency services.

Key Words: Knowledge, Perception, Consequence, Children, Emergency, Parents, Delayed

DEDICATION

This project work is dedicated to the **ALMIGHTY GOD** who has been my constant source of help and strength in my academic journey.

To my beloved Parents, Mr & Mrs **AUGUSTINE ADUBALE, FR, JOHN ADESOTU** whose unwavering support both financially and morally has kept me outstanding and fostering success all through my academic year.

ACKNOWLEDGMENT

I would like to express my heartfelt gratitude to the ALMIGHTY GOD for His abundant grace, wisdom, and strength throughout this research journey. I express my deepest gratitude to my amiable parents, Mr Sunday and Mrs **AUGUSTINE ADUBALE, FR, JOHN ADESOTU**, for their unwavering support, encouragement, and love.

Additionally, I would like to thank my supervisor, **Mrs. R. LAWAL**, a distinguished scholar of impeccable standing . Her invaluable contributions meticulous corrections and for her expert guidance, mentorship, and valuable insights in my research study.

I also extend my gratitude to the Dean, Prof F.U Okafor,Assit.,Dean Dr T.A Ehwarieme,HOD Prof. (Mrs) C.E Omoregbe, and to all my lecturers, Prof. (Mrs) J. A. Afemikhe, Prof., Prof (Mrs) R.E Esewe, Dr (Mrs) C. Enuku, Mrs N.E Oyana, Rev. Sr. Chukwura, Mrs C.C Edo-Osagie, Mrs. Oyana, Mrs. Lawal, Mrs Ekhuobase, Mrs F. Esebame, Mr Aragua and Mrs Osadolor for their valuable knowledge, support, and encouragement through my course of study in the department and all other lecturers and non-academic status for their immense contribution and dedication.

Finally, I would like to appreciate everyone who contributed to the success of this study in one way or the other. This study would not have been possible without the contributions of numerous individuals who have supported me throughout this research journey. I extend my sincere appreciation to everyone who has played a role in shaping this study, from the participants who shared their experiences to the healthcare professionals who provided valuable insights.

I am grateful for the guidance of my supervisor, the support of my family. Augustine Adubale, Fr, John Adesotu, Vivian Ozeigbe, Blessing.

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CHAPTER ONE

INTRODUCTION

1.1 Background of study

Childhood emergencies require swift and informed action to prevent avoidable complications, permanent disability, or death. In pediatric healthcare, the timing of presentation to an emergency facility plays a critical role in determining the outcome of a child's condition. When caregivers delay in bringing children to the hospital, especially in cases involving acute illnesses, trauma, or worsening chronic diseases, the consequences can be dire. Such delays often result in poor clinical outcomes, longer hospital stays, increased need for intensive care, and, in some cases, mortality (Abiodun & Ilori, 2022). Globally, and particularly in low- and middle-income countries (LMICs) like Nigeria, delays in pediatric emergency presentation are a significant public health concern. A growing body of evidence points to several interwoven factors—ranging from caregivers' knowledge gaps and misconceptions to system-level inefficiencies and sociocultural barriers. Parental or caregiver knowledge and perception have consistently been identified as key determinants in the timing of healthcare-seeking behavior. When caregivers are unable to recognize danger signs in children or underestimate the severity of symptoms, they are more likely to delay seeking appropriate medical intervention (Appleby et al., 2022; AlShatarat et al., 2022).

Moreover, perception—shaped by past healthcare experiences, cultural beliefs, and external circumstances such as pandemics—significantly influences the decisions caregivers make. During the COVID-19 pandemic, for instance, many caregivers hesitated or outright refused to present at healthcare facilities due to fear of infection, misinformation, or movement restrictions. Davis et al. (2021) found that across five countries, parents reported heightened levels of fear and confusion about accessing healthcare during the pandemic, even when their

children were critically ill. This aligns with findings by Watson et al. (2021) and Conlon et al. (2021), who observed a marked reduction in emergency department visits for children during the height of the pandemic, accompanied by an increase in severity of illnesses at presentation—highlighting the consequences of delayed healthcare access. Beyond pandemics, system-level issues such as poor access to transportation, inadequate emergency communication, and long waiting times further discourage prompt presentation. Montoro-Perez et al. (2023) and Vicens-Blanes et al. (2023) emphasized that ineffective hospital triage, low caregiver satisfaction, and lack of clear hospital communication protocols were recurrent themes contributing to presentation delays. In Nigeria, these are compounded by additional socioeconomic and infrastructural constraints, including poverty, poor road networks, long distances to health facilities, and insufficient public health education (Abiodun & Ilori, 2022).

A particularly troubling aspect of delayed presentation is its effect on time-sensitive conditions such as sepsis, acute respiratory distress, meningitis, or diabetic ketoacidosis (DKA). For instance, Wersäll et al. (2021) studied delayed presentation in children newly diagnosed with Type 1 diabetes and found that most severe cases of DKA were associated with a delayed decision to seek emergency care—even when caregivers noticed warning signs. This emphasizes the fact that recognizing symptoms is only one part of the challenge; the perception of urgency and value placed on professional care is equally important. Additionally, misconceptions about what constitutes a true emergency have led to the inappropriate use of emergency services. In the UK, Sam et al. (2021) discovered that some caregivers presented to emergency departments for non-urgent issues, often due to inadequate understanding of available healthcare pathways or under the assumption that EDs provide faster care. Such misuse contributes to overcrowding, increases strain on healthcare workers, and diverts resources from genuinely critical cases. In the Nigerian healthcare setting, especially in tertiary hospitals like the University of Benin Teaching Hospital (UBTH), the pediatric emergency unit

is a frontline institution managing a wide range of childhood emergencies. Despite its importance, there is limited published research assessing the knowledge and perception of caregivers regarding delayed presentation and its consequences. Understanding how parents conceptualize emergencies, interpret symptoms, and make decisions about when and where to seek care is critical in identifying gaps that can be targeted through interventions such as community health education, emergency preparedness programs, and improved triage systems. Furthermore, qualitative studies such as those by Nijman et al. (2022) and Appleby et al. (2022) suggest that many caregivers rely heavily on informal sources of advice, such as friends, family, or social media, when making decisions about seeking care. This reliance, when not guided by accurate information, can lead to significant delays. In many LMICs, traditional medicine and spiritual beliefs also play a substantial role in health-seeking behavior. These factors, combined with a general mistrust or dissatisfaction with health systems, further exacerbate the delay in emergency presentation.

Therefore, to ensure effective pediatric emergency care and reduce child morbidity and mortality, it is essential to explore and understand the factors influencing caregivers' decisions. This includes their knowledge of common emergency signs, awareness of the risks associated with delays, and the social and psychological elements shaping their perceptions of urgency and access. This study is designed to address this gap by evaluating the knowledge and perception of parents and caregivers attending the children’s emergency unit at UBTH regarding the consequences of delayed presentation. By doing so, it aims to provide evidence that could guide hospital management, policymakers, and public health officials in designing targeted interventions to improve timely access to pediatric emergency services and ultimately enhance child survival in Nigeria.

1.2 Statement of problem

Delayed presentation to healthcare facilities, particularly pediatric emergency departments, is a critical public health issue in Nigeria and other low- and middle-income countries (LMICs). This delay refers to the time lag between the onset of a child's illness and when the child is brought to a health facility for appropriate care. The consequences of such delays are often dire—ranging from disease progression and complications to preventable mortality. In the Children's Emergency Unit at the University of Benin Teaching Hospital (UBTH), healthcare professionals regularly report the late arrival of critically ill children, many of whom arrive with advanced symptoms or complications that could have been mitigated with earlier medical intervention. These recurring instances suggest a systemic problem influenced by caregiver behavior and decision-making, which remains poorly understood and under-researched in this context (Abiodun & Ilori, 2022). Caregiver decisions to seek emergency care for their children are shaped by several interconnected factors including their knowledge of symptoms, health-seeking behavior, socio-cultural beliefs, previous healthcare experiences, financial capacity, and accessibility to health services (Appleby et al., 2022; AlShatarat et al., 2022). Studies have shown that in many LMICs, parents may initially opt for home remedies, traditional medicine, or spiritual interventions, often delaying presentation to medical facilities until the child's condition worsens significantly (Conlon et al., 2021; Davis et al., 2021). Even when caregivers are aware of healthcare facilities, a lack of understanding of symptom severity, denial, and fear of hospital costs or invasive treatments can prolong decision-making time (Sam et al., 2021). In the Nigerian context, such delays are exacerbated by challenges like poor transportation networks, long distances to tertiary facilities, and insufficient public health education. However, there remains a scarcity of empirical research specifically focused on parental awareness and perceptions concerning the dangers of delayed care, particularly in institutions like UBTH that handle complex pediatric cases from diverse socio-economic backgrounds.

Delayed presentation to emergency pediatric services is a widespread issue in Nigeria and has significant implications for child health. According to UNICEF (2023), Nigeria has one of the highest rates of under-five mortality globally, with many of these deaths resulting from treatable illnesses like pneumonia, malaria, sepsis, and diarrhea—conditions where timely intervention is crucial. In a hospital-based study conducted at a tertiary health facility in southwestern Nigeria, over 60% of pediatric deaths were linked to delayed arrival at the emergency unit (Abiodun & Ilori, 2022). At UBTH, anecdotal reports from clinicians suggest that a substantial proportion of pediatric emergency admissions involve children brought in with advanced symptoms due to delays at home, in transit, or after failed treatment attempts elsewhere. This problem affects not just a few families, but a broad cross-section of the population, especially in low-income or rural settings where access to timely and quality healthcare remains limited. The consequences of delayed presentation are profound and multifaceted. Clinically, delays increase the risk of complications, the need for intensive care, prolonged hospital stays, and higher mortality (Wersäll et al., 2021; Montoro-Perez et al., 2023). A child presenting late with sepsis or diabetic ketoacidosis, for example, may require aggressive intervention, suffer irreversible organ damage, or succumb to the illness—outcomes that might have been avoided with prompt care. Psychologically and emotionally, caregivers often experience guilt, stress, and trauma from witnessing the deterioration or loss of their child. Economically, late-stage treatment is more expensive, placing significant financial burdens on families, many of whom pay out-of-pocket. For the healthcare system, increased cases of delayed presentation lead to overcrowding, staff burnout, resource depletion, and lower treatment success rates. If unaddressed, this trend may continue to undermine Nigeria's progress toward achieving the Sustainable Development Goal (SDG) 3, which aims to end preventable deaths of newborns and children under five years of age.

Despite the recognition of delayed care-seeking as a major issue in pediatric health, research in Nigeria remains limited in scope and often fails to explore the underlying perceptions and knowledge levels of caregivers. Much of the existing literature focuses on health outcomes or general barriers to healthcare access, without delving deeply into what parents and caregivers know about the consequences of delayed care or how they interpret the urgency of symptoms (Nijman et al., 2022; Sam et al., 2021). Additionally, global studies tend to emphasize pandemic-related factors or high-income settings, leaving a gap in understanding how routine delays occur in normal times within Nigerian urban and semi-urban populations. There is a clear need for context-specific evidence that highlights caregiver awareness and belief systems surrounding pediatric emergencies—especially in a high-volume, referral-based teaching hospital like UBTH. Filling this gap is essential for designing effective public health interventions and improving emergency response behaviors among parents. This study seeks to address these gaps by exploring the knowledge and perceptions of caregivers attending the Children's Emergency Unit at UBTH regarding the consequences of delayed presentation. Through the use of structured questionnaires and in-depth analysis, the research aims to uncover the level of awareness caregivers have about the risks associated with late presentation, identify misconceptions or barriers to prompt care-seeking, and determine the socio-demographic factors influencing their decisions. The findings are expected to provide evidence-based insights that can inform policy, guide targeted health education campaigns, and improve caregiver responsiveness to child illness. By promoting earlier presentation, the study has the potential to reduce pediatric morbidity and mortality rates, enhance resource allocation within emergency departments, and contribute to a more responsive and efficient healthcare system in Nigeria.

1.3 Objectives of the Study

1.4 Research Question

1. What is the knowledge of the consequence of delayed presentation among parents attending children emergency at University of Benin Teaching Hospital?
2. What is the perception of the consequence of delay presentation among parents attending children emergency at University of Benin Teaching Hospital?
3. What are the factors responsible for delayed presentation to emergency services among parents attending children emergency at University of Benin Teaching Hospital?

1.5 Hypotheses

1. There is no significant relationship between the knowledge and perception of the consequence of delayed presentation among parents attending the children emergency at University of Benin Teaching Hospital.

1.6 Significance of the Study

To the Nursing Profession

This study is of immense significance to the nursing profession as it highlights critical gaps in caregivers' knowledge and perception regarding timely access to pediatric emergency care. By identifying factors that contribute to delayed presentation, nurses will be better equipped to implement effective health education strategies during routine clinic visits or community outreach programs. The findings will also serve as an evidence base to support the development of nursing protocols that emphasize early recognition of pediatric illness and caregiver counseling. Ultimately, this study will enhance the advocacy role of nurses in promoting timely care-seeking behaviors, thereby contributing to better child health outcomes and professional nursing practice.

To Healthcare Providers

The study provides valuable insights for all healthcare providers, including doctors, emergency unit staff, and hospital administrators, by revealing patterns and reasons behind delayed hospital presentations. With this knowledge, healthcare teams can design targeted interventions such as improved triage systems, caregiver education programs, and policy adjustments aimed at reducing preventable morbidity and mortality among children. Moreover, the study can inform the training curriculum for health workers by integrating modules on caregiver communication, emergency warning signs, and culturally appropriate engagement techniques to bridge knowledge gaps.

To Society

At the societal level, the study has far-reaching implications for public health. Delayed presentation to emergency units often leads to poor health outcomes, increased financial burden, and emotional distress for families. By shedding light on the causes and consequences of delayed presentation, the study can inform public health campaigns that promote timely healthcare-seeking behavior. Policymakers and health planners can also use the findings to design community-based interventions that address socio-cultural, economic, and infrastructural barriers to emergency care. In the long term, improving timely access to pediatric emergency services will contribute to reducing under-five mortality rates and enhancing the overall well-being of children in the society.

1.7 Scope of the Study

This study is limited to assessing the knowledge and perception of the consequences of delayed presentation among parents attending the Children's Emergency Unit at the University of Benin Teaching Hospital (UBTH). It focuses on identifying contributing factors, awareness

levels, and behavioral patterns influencing delayed healthcare-seeking for pediatric emergencies. The study population is restricted to parents or primary caregivers of children presenting at the unit during the study period.

1.8 Operational Definition of terms

1. **Knowledge**:

   In this study, knowledge refers to the awareness and understanding parents have about signs of childhood emergencies, appropriate timelines for seeking medical help, and the potential outcomes of delaying presentation to a healthcare facility. It will be measured using responses to structured questions assessing factual information about pediatric emergencies.

2. **Perception**:

   Perception denotes the beliefs, attitudes, and personal interpretations held by parents regarding the consequences of delayed presentation to the hospital. This includes their perceived severity of symptoms, trust in healthcare services, and socio-cultural beliefs about illness and treatment. It will be evaluated using a Likert-scale-based questionnaire.

3. **Consequences of Delayed Presentation**:

   This refers to the adverse effects or outcomes resulting from not seeking medical attention promptly when a child is critically ill. Consequences may include worsening of the child's condition, increased risk of complications, longer hospital stays, or even death.

4. **Delayed Presentation**:

Delayed presentation is defined in this study as a situation where a child is brought to the emergency unit later than 24 hours after the onset of serious symptoms, as judged by medical personnel. It is assessed through caregiver reports and patient history.

5. **Parents**:

   Refers to biological or legal guardians (including mothers, fathers, or primary caregivers) who are responsible for making healthcare decisions for their children and who accompanied the child to the Children's Emergency Unit during the study.

6. **Children's Emergency Unit**:

   This is the pediatric emergency department of the University of Benin Teaching Hospital (UBTH), where children with urgent or life-threatening conditions are treated.

CHAPTER TWO

LITERATURE REVIEW

This chapter focuses on the review of related literature under the following headings; conceptual review, theoretical review and empirical review. Necessary literature would be gotten from published and unpublished works, articles and journals in this study.

2.1 Conceptual review

2.1.1 Concept of Consequences of Delayed Presentation

Delayed presentation in the context of pediatric emergencies refers to a significant lapse in time between the onset of a child's symptoms and the moment they are brought to a healthcare facility for medical attention. This delay, often resulting from parental misconceptions, lack of awareness, fear, logistical barriers, or health system inefficiencies, can have profound consequences on the health outcomes of children. The effects of such delays are multi-dimensional, impacting not only the clinical prognosis of the child but also placing increased strain on healthcare systems and affecting the psychological well-being of caregivers.

One of the most critical consequences of delayed presentation is the progression of illness from a manageable to a more severe or life-threatening stage. In pediatric patients, early signs of illnesses such as respiratory infections, gastroenteritis, sepsis, or malaria may initially present mildly but can rapidly escalate if not treated promptly. For example, Abiodun and Ilori (2022) found that children with severe malaria who presented late to emergency departments in Benin City were more likely to experience complications such as seizures, coma, or death, compared to those who were brought in early. Similarly, Wersäll et al. (2021) reported that delayed referral in children with new-onset diabetes significantly increased the risk of presenting in diabetic ketoacidosis, a preventable yet life-threatening complication.

Another significant consequence is the increased risk of mortality. Pediatric mortality can be greatly reduced through timely intervention, but delays reduce the window for effective treatment. During the COVID-19 pandemic, multiple studies, including Davis et al. (2021) and Watson et al. (2021), reported a troubling trend of parents avoiding hospitals due to fear of infection, resulting in an increase in children arriving with advanced illness. This underscores how delayed presentation can directly influence survival, particularly in time-sensitive conditions.

Furthermore, delays contribute to the burden on healthcare systems, as late-stage presentations often require more intensive and prolonged interventions. Conditions that could have been managed on an outpatient basis may escalate to needing emergency surgeries, intensive care admissions, or extended hospital stays. This not only consumes more medical resources but also increases healthcare costs for families and institutions alike (Montoro-Perez et al., 2023).

From a psychosocial perspective**,** caregivers of children who suffer worsened outcomes due to delays often experience feelings of guilt, anxiety, and psychological distress. Studies like those by Coelho et al. (2021) and Althiabi (2021) reveal that delayed treatment and adverse outcomes can significantly affect parental mental health, particularly when they blame themselves for not acting sooner.

Additionally, delayed presentation may also lead to long-term disabilities or chronic health complications. For instance, untreated infections may result in hearing loss, neurological deficits, or renal damage. This places an ongoing burden on families and society, highlighting the importance of timely healthcare-seeking behavior.

Importantly, delayed presentations can also complicate diagnosis and management. When children arrive at emergency units with progressed symptoms, the clinical picture may become

clouded, making it difficult for healthcare professionals to determine the original cause. This can lead to misdiagnosis or inappropriate treatment, further endangering the child's health.

2.1.2 Types of Childhood Illnesses Considered Emergencies

Childhood illnesses vary in severity, and while many are self-limiting or manageable with basic outpatient care, certain conditions warrant immediate medical attention due to their potential to rapidly deteriorate or become life-threatening. In the pediatric population, the capacity for rapid physiological decompensation, coupled with challenges in communication and symptom expression, makes early recognition and prompt treatment of emergencies crucial. Understanding the types of childhood illnesses considered emergencies is vital for both healthcare providers and caregivers, as it informs appropriate health-seeking behavior and timely presentation to emergency units.

One of the most common categories of pediatric emergencies is **acute respiratory illnesses**. Conditions such as severe pneumonia, bronchiolitis, and asthma exacerbations can quickly compromise a child's ability to breathe, leading to hypoxia and, if untreated, death. Young children, particularly infants, have narrower airways and less pulmonary reserve, making them more susceptible to respiratory failure. According to the World Health Organization (WHO), pneumonia remains a leading cause of death in children under five, especially in low-resource settings where delayed presentation is common.

Febrile illnesses with convulsions, such as febrile seizures or those indicative of central nervous system infections (e.g., meningitis, encephalitis), also represent pediatric emergencies. Seizures in children can be alarming for parents and may signify serious underlying conditions. Meningitis, for instance, can progress rapidly and, if not managed immediately, may result in brain damage, hearing loss, or death. As highlighted in studies by Wersäll et al. (2021) and

Okposen et al. (2021), children presenting with fever and altered consciousness require urgent evaluation to rule out life-threatening infections.

Another significant group of emergencies involves **gastrointestinal illnesses**, particularly those leading to **severe dehydration**. Acute watery diarrhea, often caused by viral or bacterial infections, is a major pediatric concern in many developing countries. When not promptly treated, especially in infants and young children, diarrhea can result in rapid fluid loss, electrolyte imbalance, and hypovolemic shock. Vomiting associated with gastroenteritis can further exacerbate dehydration. The Integrated Management of Childhood Illness (IMCI) strategy emphasizes the danger signs of dehydration, urging immediate referral for intravenous rehydration when necessary.

Severe malaria is another life-threatening condition frequently encountered in pediatric emergency settings in sub-Saharan Africa, including Nigeria. Malaria can escalate from an uncomplicated febrile illness to severe forms such as cerebral malaria, severe anemia, or multi-organ failure. Children under five are particularly vulnerable due to lower immunity. According to Abiodun and Ilori (2022), late presentation of children with malaria to emergency units often results in higher rates of complications and mortality.

Traumatic injuries and **accidental poisoning** are also considered pediatric emergencies. Children are naturally curious and active, placing them at risk for falls, burns, fractures, and ingestion of harmful substances. These incidents can cause significant harm if not managed swiftly. Head injuries, for instance, can be subtle initially but may lead to intracranial bleeding. Likewise, ingestion of household chemicals or medications can cause respiratory or cardiac failure if not addressed immediately.

Neonatal emergencies, such as birth asphyxia, neonatal sepsis, and jaundice, are particularly critical due to the fragility of newborns. Conditions like neonatal sepsis often present with nonspecific signs such as poor feeding, lethargy, or hypothermia, which can be easily missed or misinterpreted by caregivers, leading to delays in seeking care.

Metabolic emergencies, though less common, also fall under critical conditions needing urgent attention. These include **hypoglycemia**, **diabetic ketoacidosis**, and **electrolyte imbalances**, all of which can rapidly become fatal if not promptly corrected. Diabetic ketoacidosis, for example, presents with symptoms such as vomiting, abdominal pain, and deep breathing, and requires immediate fluid and insulin therapy.

Lastly, **congenital anomalies with acute presentations**, such as intestinal obstruction, congenital heart defects with cyanotic spells, or tracheoesophageal fistula, are pediatric surgical emergencies that often manifest shortly after birth or in early infancy. Early recognition and swift referral to specialized centers are crucial for the survival of these children.

2.1.3 Danger Signs of Childhood Illnesses Considered Emergencies

Timely recognition of danger signs in children is critical to reducing morbidity and mortality, particularly in low-resource settings where delayed presentation to health facilities can have devastating consequences. Danger signs are clinical manifestations that indicate a child may be suffering from a potentially life-threatening condition and require immediate medical attention. These signs can arise from a variety of illnesses, including infections, metabolic disorders, trauma, and congenital anomalies.

The World Health Organization (WHO) and various pediatric guidelines highlight several key danger signs that should prompt caregivers to seek urgent medical care. These include persistent vomiting, convulsions, inability to drink or breastfeed, lethargy or unconsciousness,

severe respiratory distress, and high fever that does not respond to medication (Davis et al., 2021; Chinawa et al., 2021). Additionally, signs like sunken eyes, poor skin turgor, and inability to wake the child are considered red flags for severe dehydration, especially in cases of diarrhea and vomiting (Farsi & Farsi, 2021).

Severe respiratory symptoms, such as rapid breathing, chest in-drawing, nasal flaring, and grunting, are associated with life-threatening respiratory infections like pneumonia, bronchiolitis, or COVID-19-related complications. According to Conlon et al. (2021), these symptoms became increasingly prevalent and were of heightened concern during the pandemic, as access to care was often delayed due to parental fears of contracting COVID-19 in hospital settings.

Neurological symptoms such as seizures (especially prolonged or repetitive), confusion, and sudden loss of consciousness are signs of central nervous system involvement, which may result from conditions like meningitis, cerebral malaria, or epilepsy. Alessi, Perucca, and McIntosh (2021) emphasize that delays in diagnosing neurological conditions such as epilepsy are frequently due to caregiver misunderstanding of initial symptoms, which may be mistaken for benign behaviors or febrile convulsions.

Fever accompanied by rash, stiff neck, photophobia, or irritability can be indicative of meningitis or other systemic infections requiring urgent attention. Likewise, **persistent abdominal pain** with vomiting and abdominal distension can signal surgical emergencies like intussusception or appendicitis, which are commonly misinterpreted by caregivers as minor gastrointestinal issues, leading to critical delays (Montoro-Perez et al., 2023).

In emergency pediatric care, **failure to thrive or sudden deterioration in infants**, including reduced responsiveness and poor feeding, is particularly alarming. Infants are vulnerable to

rapid clinical deterioration, and symptoms are often subtle. According to Abiodun and Ilori (2022), delayed presentation in children with severe malaria in Benin City was significantly associated with caregiver failure to recognize early warning signs, including fever with altered consciousness and vomiting.

Moreover, **changes in a child's behavior or mental status**—such as extreme irritability, confusion, or unresponsiveness—can be early signs of encephalopathy or sepsis. These are often missed due to low health literacy or attributed to fatigue or sleep disturbances, especially during periods of increased psychosocial stress, such as the COVID-19 lockdowns (Albuquerque & Santos, 2021; Segre et al., 2021).

Severe dehydration, indicated by reduced urine output, dry mouth, and lethargy, is another common emergency, particularly in settings with high prevalence of diarrheal diseases. Caregivers often underestimate the severity of dehydration, especially when fluid loss is gradual (Tamang et al., 2021).

Parental anxiety and awareness significantly influence the timeliness of seeking care. As Watson et al. (2021) observed, many parents struggled to distinguish between urgent and non-urgent symptoms during the pandemic, often hesitating to visit emergency departments due to fears of virus exposure or misjudging the severity of their child's illness. This trend was also noted in the studies by Duncanson et al. (2021) and Davis et al. (2021), which documented substantial declines in pediatric emergency visits accompanied by increased acuity at presentation.

2.1.4 Perception of Illness Severity

Parental perception of illness severity plays a pivotal role in determining the timeliness with which caregivers seek medical attention for their children. This perception is often shaped by

a complex interplay of cultural, social, and psychological factors, including health literacy, previous healthcare experiences, and beliefs in traditional or alternative medicine.

Cultural and social beliefs significantly influence how illness is interpreted and managed at the household level. In many African societies, including Nigeria, symptoms such as fever, vomiting, or convulsions are not always immediately recognized as signs of medical emergencies. Instead, they are sometimes attributed to spiritual causes, such as "evil attack," teething, or witchcraft, especially when biomedical explanations are not well understood (Farsi & Farsi, 2021; Chinawa et al., 2021). Such interpretations often lead to initial consultations with spiritual leaders, traditional healers, or family elders before any formal medical care is considered, thereby delaying presentation to health facilities. These cultural narratives shape caregivers' thresholds for determining when a child is deemed "seriously ill."

Previous experience and health literacy also heavily influence decision-making. Parents who have previously navigated the healthcare system or experienced similar illnesses may either respond promptly or delay care based on the outcomes of past experiences. For instance, a caregiver whose child previously recovered from similar symptoms without professional intervention may downplay the severity of a new illness episode (Abiodun & Ilori, 2022). Conversely, negative past encounters with health workers—such as perceived negligence or long wait times—may foster mistrust and hesitation, even in the face of serious symptoms (Duncanson et al., 2021).

Health literacy—the ability to obtain, process, and understand basic health information—is a fundamental determinant of how caregivers assess and respond to illness. Low health literacy is associated with poor recognition of danger signs and increased reliance on non-medical sources of information, such as advice from neighbors, social media, or informal community networks (Tamang et al., 2021). In many communities, misinformation or lack of awareness

leads caregivers to interpret warning signs like lethargy or convulsions as benign or self-limiting conditions.

Moreover, **traditional beliefs and the use of alternative medicine** remain prevalent in many settings and are often the first line of response to childhood illness. Herbal remedies, spiritual rituals, and over-the-counter concoctions are commonly administered at home before formal care is considered, particularly for symptoms perceived to have spiritual or cultural significance (Montoro-Perez et al., 2023). While some caregivers may use traditional remedies in parallel with hospital visits, others may delay seeking professional care until the child's condition deteriorates significantly. According to Albuquerque and Santos (2021), such delays were especially pronounced during the COVID-19 pandemic when access to health facilities was further constrained, and caregivers resorted to home-based treatments or community healers.

Even among caregivers aware of biomedical danger signs, **social norms and stigma** can discourage prompt health-seeking behavior. For example, mothers may be reluctant to visit hospitals repeatedly for fear of being labeled as "overreacting" or lacking maternal wisdom, especially in male-dominated households where healthcare decisions are made by fathers or elders (Chinawa et al., 2021)

2.1.5 Consequences of Delayed Presentation

Delayed presentation of sick children to healthcare facilities carries profound consequences, not only for the clinical outcomes of the affected child but also for the emotional well-being of the family and the economic sustainability of both households and health systems. In resource-limited settings such as Nigeria, these consequences are often amplified by infrastructural challenges, sociocultural factors, and systemic barriers to timely healthcare access.

Clinically, delayed presentation often results in the progression of otherwise manageable illnesses into life-threatening emergencies. Conditions such as pneumonia, malaria, sepsis, and acute gastroenteritis—leading causes of childhood morbidity and mortality in sub-Saharan Africa—are particularly time-sensitive. When treatment is delayed, children are more likely to develop complications such as severe dehydration, respiratory failure, or neurological damage, especially in the case of febrile convulsions and meningitis (Farsi & Farsi, 2021; Chinawa et al., 2021). Several studies have shown that children who present late to emergency units have higher rates of admission to intensive care units, longer hospital stays, and increased mortality (Abiodun & Ilori, 2022; Subedi et al., 2020). During the COVID-19 pandemic, for instance, healthcare avoidance and lockdown-related barriers led to a noticeable increase in the severity of conditions at the time of presentation (Albuquerque & Santos, 2021).

The **economic burden** on families resulting from delayed presentation is also significant. When illnesses are not treated early, the cost of care escalates due to the need for more intensive interventions, including intravenous therapies, oxygen support, surgical procedures, or prolonged hospitalization. For many low-income families, these costs are catastrophic, leading to financial distress or the need to sell assets, borrow money, or interrupt work, particularly for mothers who are the primary caregivers (Duncanson et al., 2021). Beyond direct medical costs, indirect expenses such as transportation, accommodation near hospitals, and loss of income due to caregiving responsibilities further strain household resources. At the health system level, preventable complications due to late presentation increase the demand for specialized care, stretching already limited resources in public hospitals and compromising service delivery for other patients.

The **emotional and psychological impact** on parents and caregivers cannot be overlooked. When a child's condition deteriorates due to delayed care, caregivers often experience intense

feelings of guilt, regret, and helplessness. This is especially true when delays were influenced by factors outside the caregiver's immediate control, such as long distances to health facilities, fear of COVID-19 infection, or cultural norms discouraging early hospital visits (Montoro-Perez et al., 2023). The trauma of watching a child suffer or die from a preventable condition leaves lasting psychological scars and can erode trust in the healthcare system, creating a vicious cycle of healthcare avoidance in future episodes. Moreover, parental grief following child mortality is often compounded by societal blame, particularly for mothers, reinforcing gendered expectations around child health responsibility (Chinawa et al., 2021).

In sum, the consequences of delayed presentation are multidimensional, affecting not only the survival and health of the child but also the financial stability and emotional resilience of families. Interventions aimed at reducing delays must therefore be holistic—addressing not just clinical recognition of danger signs but also improving access, affordability, and caregiver empowerment through culturally appropriate health education and systemic reforms

2.1.6 Determinants of Delayed Presentation

Understanding the determinants of delayed presentation to pediatric emergency services is essential for addressing the underlying barriers that prevent timely access to life-saving care. These determinants are often multifactorial, shaped by socio-demographic characteristics, healthcare accessibility, systemic inefficiencies, and the quality of health information available to caregivers.

Socio-demographic factors play a significant role in influencing caregivers' health-seeking behavior. Parental education, particularly maternal education, has been repeatedly identified as a critical predictor of timely health service utilization (Chinawa et al., 2021). Mothers with higher levels of education are generally more knowledgeable about danger signs in children, better equipped to recognize illness severity, and more confident in navigating the healthcare

system. Conversely, low levels of literacy can lead to misinterpretation of symptoms, reliance on home remedies, or hesitation to seek professional care. Income level also influences presentation patterns—families with limited financial resources often delay seeking medical help due to the anticipated costs of consultation, treatment, or transportation (Uleanya et al., 2021). Additionally, occupational constraints—especially for informal or low-wage workers—can deter parents from taking time off work, especially if doing so leads to a loss of income.

Accessibility to healthcare is another critical determinant. Physical distance to health facilities, particularly for rural or peri-urban residents, frequently results in delayed or missed care opportunities. Poor road networks, lack of affordable transportation, and long travel times exacerbate these challenges, especially in emergencies that require urgent response (Farsi & Farsi, 2021). Even when facilities are geographically accessible, high out-of-pocket costs, absence of health insurance coverage, and unpredictable fees for medications or procedures can discourage timely presentation. During the COVID-19 pandemic, movement restrictions, fear of infection, and reduced transportation availability further heightened these barriers, as reported in studies across various African contexts (Subedi et al., 2020; McDonnell et al., 2020).

Systemic factors within healthcare institutions also significantly contribute to delays. Long waiting times, inadequate triage systems, and inconsistent availability of skilled personnel can discourage parents from seeking early care, particularly if they have previously experienced dismissiveness or poor-quality service (Duncanson et al., 2021). In many tertiary centers, including teaching hospitals, overcrowding and bureaucratic admission processes delay timely attention to critically ill children. Additionally, shortages in essential supplies, such as oxygen, antibiotics, or laboratory reagents, further undermine prompt and effective management once a child presents (Chinawa et al., 2021).

Finally, **health communication and misinformation** are increasingly recognized as important determinants. Caregivers' decision-making is often influenced by the information they receive from family members, community leaders, and social media. Inaccurate or conflicting messages about disease symptoms, treatment efficacy, or vaccine safety can lead to confusion, mistrust in medical advice, and preference for alternative or traditional remedies (Montoro-Perez et al., 2023). Misinformation during the COVID-19 pandemic, for example, led many parents to delay or avoid visiting hospitals for fear of contracting the virus, even when their children showed signs of serious illness (Albuquerque & Santos, 2021). In communities where traditional medicine is deeply rooted, some caregivers may initially turn to herbalists or spiritual healers, leading to critical delays in receiving appropriate care (Uleanya et al., 2021).

2.2 Theoretical review

This study is grounded in the Health Belief Model (HBM)**,** one of the most widely used conceptual frameworks for understanding health behaviors. Developed in the 1950s by social psychologists Hochbaum, Rosenstock, and Kegels working in the U.S. Public Health Service, the model was originally designed to explain why people failed to participate in disease prevention programs. Over time, it has been adapted to predict and explain a variety of health-related behaviors, including responses to symptoms and decisions to seek care.

The HBM is particularly relevant to this study because it focuses on the individual's perceptions and beliefs that influence their health-related decisions. In the context of delayed presentation in pediatric emergencies, the model helps to explain why parents may or may not bring their child to the hospital promptly when signs of serious illness appear.

The key components of the HBM and their relevance to this study are as follows:

1. **Perceived Susceptibility**: This refers to a parent's belief about the likelihood of their child developing a serious condition or complication from an illness. Parents who believe their child is vulnerable to worsening symptoms or severe outcomes are more likely to seek prompt care. Conversely, underestimation of risk may result in delays.
2. **Perceived Severity**: This relates to how serious the parent believes the illness is, including its potential impact on the child's health and life. If a parent perceives an illness to be minor or self-limiting, they may delay seeking medical attention. Cultural and traditional beliefs may also influence whether symptoms are considered severe enough to warrant hospital presentation.
3. **Perceived Benefits**: This component addresses the parent's belief in the efficacy of early medical intervention. Parents who believe that early presentation at a healthcare facility will improve outcomes and reduce complications are more likely to act promptly. Mistrust in healthcare systems or belief in traditional remedies may reduce perceived benefits of hospital care.
4. **Perceived Barriers**: Perceived barriers can include financial costs, transportation challenges, long waiting times, fear of poor treatment, or lack of trust in health personnel. These factors can significantly discourage parents from seeking immediate care even when they recognize the need.
5. **Cues to Action**: These are triggers that prompt parents to take action, such as the worsening of symptoms, advice from friends or family, public health campaigns, or prior experience with similar illnesses. Understanding what prompts decision-making can guide interventions aimed at encouraging earlier presentations.
6. **Self-Efficacy**: This refers to the confidence parents have in their ability to recognize danger signs, navigate the healthcare system, and overcome barriers to seek care. High self-efficacy is associated with prompt health-seeking behavior.

2.2.2 Application of the theory

The Health Belief Model (HBM) provides a comprehensive theoretical framework for understanding the behaviors and decisions of individuals in relation to health issues. In the context of this study—assessing knowledge and perception of the consequences of delayed presentation among parents attending the children's emergency unit at the University of Benin Teaching Hospital—the HBM serves as a valuable tool for explaining why some parents delay seeking emergency care for their children despite the known risks. The model comprises key constructs such as perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy, all of which influence health-related behavior.

In relation to the first objective, which seeks to assess the knowledge of the consequences of delayed presentation among parents, the HBM construct of perceived severity is most relevant. This concept refers to an individual's belief about the seriousness of a health condition and its potential consequences. When parents have adequate knowledge of what delayed medical attention could mean for their child—ranging from progression of illness to long-term disability or death—they are more likely to view the situation as urgent. This awareness increases the likelihood that they will seek timely care. Knowledge also influences perceived susceptibility, where parents may evaluate how vulnerable their child is to complications arising from delays. Both of these perceptions are critical to shaping behavior and are foundational to early health-seeking decisions.

The **second objective** focuses on determining parental perceptions of the consequences of delayed presentation. This objective is directly tied to several HBM constructs, especially **perceived severity**, **perceived benefits**, and **perceived barriers**. Parents' perception of the outcomes of delayed care influences whether they act quickly or not. For instance, if a

parent believes that symptoms are minor or that the child will recover without medical intervention, they may not perceive an immediate need for emergency care. Conversely, if the consequences of delay are perceived as severe, they are more inclined to act swiftly. At the same time, perceived **barriers** such as cost of treatment, lack of transportation, previous negative experiences with the healthcare system, or cultural beliefs in traditional medicine can hinder timely presentation, even when the need is recognized. Understanding how parents weigh these perceived benefits against perceived barriers provides crucial insight into their decision-making process.

The **third objective**, which aims to identify the factors responsible for delayed presentation, aligns with the HBM construct of **modifying variables**. These include demographic, socio-economic, and structural factors that shape health beliefs and actions. For example, a parent's level of education, income status, occupation, and access to healthcare facilities can either facilitate or hinder timely care-seeking. Additionally, **cues to action**, such as community health messages, advice from peers, or worsening symptoms, play a role in prompting parents to act. In many cases, systemic issues such as long waiting times, unavailability of healthcare staff, or unclear hospital procedures further complicate the decision to seek immediate care. **Health literacy** and exposure to accurate information versus misinformation also significantly influence how parents respond when their child is ill.

2.3 Empirical review

2.3.1 To assess knowledge of the consequence of delayed presentation among parents attending children emergency.

In a study conducted by BaniHani et al. (2021) titled "Maternal knowledge on early childhood caries and barriers to seek dental treatment in Jordan," the researchers aimed to assess maternal knowledge, attitudes, and beliefs regarding early childhood caries (ECC) risk factors and to identify the barriers mothers face in seeking dental treatment for their children. The study adopted a cross-sectional survey design and involved 600 mothers of healthy children aged 3–5 years attending maternity and child health centers in Jordan. A face-to-face interview approach was used to collect data through a structured questionnaire, and clinical diagnosis of ECC was performed based on the American Academy of Pediatric Dentistry (AAPD) criteria, using the dmft index for caries assessment. The findings revealed that 99.2% of the children had poor oral health, with a mean dmft score of 6.04 ± 1.2. Surprisingly, only 25.7% of the mothers acknowledged that their child had poor oral health, and more than half (53.3%) were unaware that their child had dental caries. Moreover, 82% of mothers demonstrated poor knowledge, attitudes, and beliefs about their children's oral health. Significant associations were found between oral health knowledge and mothers' education and profession ($p < 0.05$). Additionally, 65.9% of the mothers delayed seeking dental treatment, with maternal profession, family income, and travel time to health centers identified as significant barriers ($p < 0.05$). The study concluded that maternal knowledge regarding ECC was generally poor, and there were substantial delays in seeking dental care for affected children, driven largely by socioeconomic and accessibility factors.

In another study, Carpenter et al. (2022) investigated "Early parental knowledge of late effect risks in children with cancer" with the goal of assessing how well parents understood their child's risks for late effects of cancer treatment and identifying predictors of increased

knowledge. The study was carried out at the Dana-Farber/Boston Children's Cancer and Blood Disorders Center using a survey-based descriptive design. Ninety-six parents of pediatric cancer patients were surveyed regarding their knowledge of eight specific late effects, with each child's risk level benchmarked against the Children's Oncology Group's Long-Term Follow-Up Guidelines (v5). The analysis involved descriptive statistics and ordinal logistic regression to identify predictors of higher knowledge scores. The results showed that only 11.46% of parents correctly identified all eight potential late effects their children might face, with the median score being five correct identifications. Knowledge was higher for some conditions, such as ototoxicity (95%), but significantly lower for infertility (28%), neurocognitive impairment (56%), and cardiac toxicity (61%). Importantly, the regression analysis revealed that no specific parent or child factors significantly predicted knowledge levels. The study concluded that early gaps exist in parental understanding of late treatment effects, and since no demographic or clinical predictors were found, interventions to improve knowledge should be universally implemented rather than targeted.

Lastly, Gogate & Sil (2021) provided a commentary on a study by Dr. Sen et al. that investigated the "Causes of delayed presentation of pediatric cataract in central rural India." While the original study used a questionnaire-based prospective design at a tertiary eye care center, Gogate and Sil highlighted important considerations and comparisons with similar studies from China, South Africa, and Zambia. According to the commentary, lack of awareness was a major reason for initial delay (between detection and hospital visit), consistent with international findings. However, cost emerged as the main factor delaying surgery after diagnosis (secondary delay). The authors emphasized that primary health care providers, such as nurses and general practitioners, often contributed to the delay by advising parents to wait due to fear of anesthesia or doubts about visual outcomes—behaviors influenced by limited awareness of amblyopia and the importance of early intervention. The commentary suggested

that Dr. Sen's study could have been strengthened by exploring these provider-level influences, as such barriers are amenable to correction through continuous medical education. The authors also cited a comparative study between India and China, showing greater delays in India, potentially due to lower maternal literacy and later healthcare engagement. Overall, the commentary underscores the multifactorial nature of delayed pediatric cataract care, pointing to both systemic and educational gaps.

In a study conducted by Abdulrahman et al. (2023) on "Knowledge Level of Undescended Testis in Saudi Arabia: Why Are We Facing Delayed Presentation?", the authors aimed to determine the factors contributing to the delayed presentation of undescended testis (UDT) among children in Saudi Arabia. The study employed a cross-sectional design and used a validated questionnaire distributed via social media platforms in November 2022. A total of 2,360 participants from the general population were enrolled through convenience sampling. The findings revealed that more than half (54.92%) of respondents had never heard of UDT, 48.5% were unaware of the typical age of presentation, and 49.1% did not know the treatment options. Furthermore, 22.86% of those with a diagnosis reported it was made after more than one year of age. The three most cited reasons for delayed intervention were a lack of community awareness (22.3%), parental ignorance and neglect (21.7%), and insufficient early screening programs (19.7%). The study concluded that the substantial knowledge gap in the population necessitates widespread health education and awareness campaigns involving medical institutions and primary healthcare centers.

In another study, Smith et al. (2021) examined the impact of delayed presentation on mortality in children with sepsis in a public tertiary hospital in Tanzania. The study, titled "Delayed Presentation and Mortality in Children With Sepsis in a Public Tertiary Care Hospital in Tanzania," was a secondary data analysis of 1,803 pediatric patients aged between 28 days and

14 years who presented to the emergency department at Muhimbili National Hospital between July 2016 and June 2017. Using multivariable logistic regression models, the study assessed the relationship between delayed presentation—defined as more than 48 hours from fever onset to hospital presentation—and in-hospital mortality. The results showed that 11.3% of children died, and delayed presentation was significantly more common among non-survivors (60%) than survivors (45%) ($p \leq 0.01$). The adjusted odds ratio for mortality among those with delayed presentation was 1.85 (95% CI: 1.17–3.00). The study concluded that delayed presentation is an independent risk factor for mortality in pediatric sepsis and recommended improving emergency referral systems and increasing public awareness to reduce preventable deaths.

Similarly, Keating et al. (2022), in a study titled "Three Delays Model Applied to Pediatric Injury Care Seeking in Northern Tanzania: A Mixed Methods Study," explored delays in accessing definitive care among pediatric trauma patients. The research employed a mixed-methods approach and was conducted from November 2020 to October 2021. It included 348 pediatric injury patients and in-depth interviews with 30 caregivers. The quantitative component collected data on care-seeking timelines, while the qualitative component explored reasons behind the delays, using the Three Delays Model. The findings showed that 81% of patients visited an intermediary facility before reaching the referral hospital, with median delays of 10.2 hours for those first visiting clinics, 8.0 hours for district/regional hospitals, and only 1.4 hours for those going directly to the referral hospital. In-hospital mortality was 8.2%, with 86.7% of deaths occurring in children who had first sought care elsewhere. Thematic analysis of the interviews identified delays in recognizing emergencies, navigating the referral system, and financial constraints at the referral hospital. The study concluded that multifaceted delays across the healthcare system contribute significantly to poor outcomes and emphasized

the need for improved caregiver education, streamlined referral processes, and better-equipped hospitals.

In a qualitative study conducted by Pickering et al. (2022) titled ″Getting to the Emergency Department in Time: Interviews with Patients and Their Caregivers on the Challenges to Emergency Care Utilization in Rural Uganda,″ the researchers aimed to explore the barriers that contribute to delayed presentation to emergency care in rural settings. The study was carried out at the Emergency Department (ED) of Karoli Lwanga Hospital in Rukungiri District, Uganda, which is operated in partnership with Global Emergency Care, a nongovernmental organization. Using a descriptive phenomenological approach, the researchers conducted semi-structured interviews with a purposively selected sample of patients and caregivers who presented to the ED more than 12 hours after symptom onset, between January and March 2017. The sample was diverse in terms of age, gender, and presenting complaints and consisted of 50 patients (mean age 33), with interviews conducted directly with 13 patients and 37 caregivers. Thematic analysis revealed four key themes contributing to delayed emergency presentation: limited cultural awareness and understanding of emergency warning signs, reliance on local facilities perceived as inadequate, financial barriers related to expected healthcare costs, and poor transportation infrastructure. The median duration of symptoms before ED presentation was 5.5 days, with participants typically recognizing the severity of illness only one day prior to seeking care. The study concluded that each of these factors significantly delays emergency care access and called for targeted interventions to improve community education, financial support mechanisms, and transportation infrastructure, with further research planned to design and assess such interventions collaboratively with stakeholders.

2.3.2 To determine perception of the consequence of delay presentation among parents attending children emergency.

In a study conducted by Abiodun and Ilori (2022) titled *"Caregivers' perception and determinants of delayed presentation of children with severe malaria in an emergency room in Benin City, Nigeria,"* the researchers employed a descriptive cross-sectional design to evaluate factors responsible for the late presentation of children diagnosed with severe malaria at a tertiary hospital. Participants were children meeting the World Health Organization's diagnostic criteria for severe malaria, and delayed presentation was defined as arrival at the hospital after more than three days of illness. Inferential statistical methods were used to analyze associations between sociodemographic variables and delayed presentation. Results showed that 37.3% of children presented late to the emergency department. Significant determinants included socio-economic status (P=0.003), marital status (P=0.015), and the number of healthcare facilities visited prior to referral (P=0.008). Children from upper socio-economic classes were over three times more likely to present late compared to those from lower classes. Ethnic disparities were also noted, with Yoruba children more likely to experience delays than their Bini counterparts. A negative, albeit statistically non-significant, correlation was found between caregivers' perception of convulsion treatment and prompt hospital presentation. The study concluded that delayed presentation is common and driven by multiple factors, suggesting the need for enhanced caregiver education on the dangers of delayed care in malaria.

Similarly, Davis et al. (2021) in their multi-national cross-sectional study titled *"Caregiver-reported delay in presentation to pediatric emergency departments for fear of contracting COVID-19,"* sought to determine if caregivers delayed seeking emergency care due to concerns about COVID-19. This pre-planned secondary analysis of a broader survey included caregivers of children aged 0–19 years across 16 pediatric EDs in five countries, conducted between May

and June 2020. Data were collected via an anonymous online survey hosted on RedCAP. Out of 1543 caregivers surveyed, 18.6% (n=287) admitted delaying care out of fear of contracting COVID-19, and 43.2% of those reported that their child's condition worsened during the delay. Multivariate analysis identified that mothers (OR 1.85), caregivers of chronically ill children (OR 1.78), younger caregivers (OR 0.965), and those worried about income loss (OR 1.08) were significantly more likely to delay ED visits. The study concluded that fear of COVID-19 significantly impacted timely emergency care utilization, raising concerns about worsening clinical outcomes during public health emergencies.

In the United Kingdom, Breckons et al. (2023) conducted a qualitative study titled *"Parental perspectives on emergency health service use during the first wave of the COVID-19 pandemic,"* to explore how parents made decisions about seeking urgent healthcare under lockdown restrictions. Using semi-structured telephone interviews with a purposive sample of parents in North East England, the researchers applied thematic analysis to the data. Three major themes emerged: risk perception regarding COVID-19, difficulties interpreting health service information, and the moral burden of making the "right" healthcare decision. The study revealed that although healthcare access was not restricted by law, many parents hesitated or avoided emergency services due to conflicting messages, uncertainty, and fear of contributing to an overwhelmed system. The researchers concluded that future public health planning should include strategies to maintain caregiver confidence and access to emergency pediatric care during crises.

Appleby et al. (2022) also examined caregiver decision-making during the pandemic in their mixed-methods study titled *"Caregiver perceptions and experiences of paediatric emergency department attendance during the COVID-19 pandemic."* The study was conducted in two NHS hospitals in London between November and December 2020, involving 100 caregivers

who participated in either surveys, interviews, or both. Quantitative data revealed that 63% of caregivers presented to the ED within two days of symptom onset. The qualitative component identified three interlinked themes—trust, safety, and uncertainty—which influenced caregivers' decisions. Despite the pandemic, most caregivers weighed their concerns and sought medical advice from trusted sources, particularly general practitioners (GPs), before attending the hospital. The study concluded that caregivers' healthcare-seeking behavior evolved during the pandemic and emphasized the role of GPs and clear communication in mitigating delays and fears related to hospital visits.

Lastly, in rural Uganda, Pickering et al. (2022) conducted a qualitative phenomenological study titled *"Getting to the Emergency Department in Time,"* which investigated challenges to timely emergency care access at Karoli Lwanga Hospital in Rukungiri District. The researchers used purposive sampling to recruit 50 patients and caregivers who arrived at the emergency department more than 12 hours after symptom onset between January and March 2017. Semi-structured interviews were conducted and analyzed thematically. Four themes emerged: cultural beliefs and lack of knowledge of emergency signs, initial use of local facilities despite perceived inadequacy, financial constraints, and transportation barriers. The median duration of illness before ED presentation was 5.5 days, with severe symptoms often identified just one day before arrival. The study concluded that interventions targeting these systemic and cultural barriers are urgently needed to improve timely emergency care utilization in rural settings.

In a study conducted by Bhat (2021) titled *"Analysis of the SPARK study COVID-19 parent survey: Early impact of the pandemic on access to services, child/parent mental health, and benefits of online services,"* the researcher investigated the early effects of the COVID-19 pandemic on families of children with Autism Spectrum Disorder (ASD) in the United States. The study employed a descriptive survey design and analyzed data from 6,393 caregivers of

children with ASD, aged 19 months to 18 years, who were part of the SPARK cohort—one of the largest ASD research cohorts in the U.S. Caregivers completed an online survey at the onset of the pandemic, which assessed disruptions in educational, medical, and therapeutic services; the impact on child ASD-related behaviors; parental mental health; and perceptions of online services. Results revealed that children from low-income families**,** younger children, and those with greater impairments (including repetitive behaviors, language, cognitive, and motor difficulties) experienced the most significant service disruptions and behavioral deterioration. Additionally, parents with a history of mental health challenges reported greater psychological distress. While many families found limited benefits in online service delivery**,** low-income families were more optimistic about future online support. The study concluded that the pandemic had a disproportionate negative impact on vulnerable families and emphasized the need for hybrid models of care—combining both in-person and virtual services—to ensure continuity of support during public health crise

2.3.3 To identify factors responsible for delayed presentation to emergency services among parents attending children emergency.

In a study carried out by Pickering et al. (2022) titled *"*Getting to the Emergency Department in time: Interviews with patients and their caregivers on the challenges to emergency care utilization in rural Uganda," the researchers sought to understand factors contributing to delayed emergency care (EC) presentation in a rural Ugandan setting. Using a descriptive qualitative design, the study employed purposive sampling to interview 50 patients and caregivers who presented at the emergency department (ED) more than 12 hours after the onset of symptoms. Through semi-structured interviews and thematic analysis based on descriptive phenomenology, four major themes contributing to delayed presentation were identified: cultural beliefs and limited knowledge of emergency signs, reliance on local facilities perceived

as inadequate, financial constraints, and poor transportation access. The study concluded that targeted interventions addressing these barriers—especially educational, infrastructural, and economic factors—are essential to improving timely emergency healthcare utilization in rural settings.

Similarly, Sampagar et al. (2023) conducted a cross-sectional study titled *"*A Study of Factors Influencing Delayed Diagnosis in Pediatric Cancers: A Step Towards Better Outcomes" to explore factors responsible for delayed cancer diagnosis among children in India. Conducted in a tertiary care hospital, the study included 185 pediatric patients diagnosed with malignancy. Diagnostic delay was defined and categorized into patient delay and physician delay. Using descriptive statistics, Mann-Whitney U, Kruskal-Wallis, and multivariate linear regression analyses, the researchers found that the median total diagnostic delay was 59 days, with patient delay accounting for a median of 30 days and physician delay 7 days. Delay was significantly higher among younger children, those from low-income backgrounds, and children of illiterate parents. Moreover, presentation to general practitioners was associated with longer delays compared to pediatricians. The study concluded that improving parental awareness, education, and decentralization of pediatric oncology services are vital strategies for reducing diagnostic delay and improving cancer outcomes.

In a multi-national cross-sectional study by Davis et al. (2021) titled "Caregiver-reported delay in presentation to pediatric emergency departments for fear of contracting COVID-19," the researchers investigated how pandemic-related fears affected timely presentation to emergency departments across 16 sites in five countries. Caregivers of children aged 0–19 completed an anonymous online survey between May and June 2020. Out of 1,543 respondents, 18.6% reported delaying ED visits due to fear of contracting COVID-19, and 43.2% of these delays led to worsening of symptoms. Multivariable regression analysis showed that caregivers who

were mothers, younger in age, worried about lost work, or had children with chronic illnesses were significantly more likely to delay ED visits. The study concluded that nearly one in five caregivers delayed care during the pandemic, underscoring the need for public health communication and policy strategies to mitigate fear-based healthcare avoidance during health crises.

In a retrospective survey conducted by Faye et al. (2024) titled "Time to diagnosis and determinants of diagnostic delays of people living with a rare disease: results of a Rare Barometer retrospective patient survey," the researchers explored the duration and determinants of diagnostic delays among people living with rare diseases (PLWRD) across Europe. Utilizing data from Rare Barometer, a survey initiative by EURORDIS-Rare Diseases Europe, the study surveyed 6,507 individuals affected by 1,675 rare diseases across 41 countries. A descriptive analysis and ordinal logistic regression were used to assess diagnostic time and its predictors. The study found that the average total diagnosis time (TDT) was 4.7 years, with 56% of respondents receiving a diagnosis more than 6 months after initial medical contact. Key determinants of delay included early symptom onset—especially during childhood (OR = 3.11) and adolescence (OR = 4.79), female gender (OR = 1.22), living in Northern or Western Europe, consulting multiple healthcare providers (OR = 5.15), and experiencing misdiagnosis (OR = 2.48). Other contributing factors were unmet needs for psychological and financial support, having a genetic disease, and a family history of rare disease. The study concluded that identifying and addressing these determinants is crucial for policy development and interventions aimed at improving timely diagnosis for PLWRD.

In another study, Raucci et al. (2021) investigated the "Impact of the COVID-19 pandemic on the Emergency Department of a tertiary children's hospital" in Italy, focusing on changes in emergency department (ED) utilization patterns. The retrospective comparative study analyzed

ED visits and urgent hospitalizations from February 21 to April 30, 2020—the peak of the Italian lockdown—and compared these to the same period in 2019. The study covered two pediatric centers: one in central Rome and the other in Palidoro, a regional COVID-19 referral center. Findings showed a drastic reduction in ED visits by 56% in Rome and 62% in Palidoro during the pandemic. This decline was most significant for low-acuity conditions such as respiratory and neurological illnesses. Conversely, the relative frequency of hospitalizations increased, rising from 14.2% to 24.4% in Rome and from 6.4% to 10.3% in Palidoro. However, the study found no significant rise in delayed presentations for life-threatening conditions such as tumors, peritonitis, or diabetic ketoacidosis. The researchers concluded that while ED visits dropped markedly—mainly due to public fear and lockdown measures—there was no evidence of increased harm from delayed access in critical cases. They emphasized the need for ongoing restructuring of ED services to adapt to future pandemic challenges.

2.4 Summary of the Literature Review

The literature review explores the issue of delayed presentation in pediatric emergencies, particularly within the context of the University of Benin Teaching Hospital. The conceptual review identifies the consequences of delayed medical care in children, including worsening of illness, increased morbidity, and risk of death. It also outlines common danger signs in pediatric illness that should prompt emergency care, such as high fever, convulsions, persistent vomiting, and difficulty in breathing.

The review highlights various factors influencing delayed presentation, including socio-economic challenges, cultural beliefs, parental knowledge, health literacy, transportation issues, and mistrust in the healthcare system. It also examines parental perceptions of illness severity, susceptibility to complications, and the effectiveness of early medical intervention.

The theoretical framework of the study is grounded in the Health Belief Model (HBM), which provides a structured lens to understand how parents' beliefs influence their decision to seek or delay care. The six constructs of the HBM—perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy—are applied to interpret parental behaviors. The model explains how knowledge and perception of illness consequences, combined with external and internal influences, shape healthcare-seeking behavior. The HBM is used to directly inform the study's three objectives: assessing parental knowledge, understanding perception, and identifying contributing factors to delayed presentation.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter described the research methodology that the researcher adopted in conducting the study. The various components of the research methodology were discussed under their respective headings, including research design, study setting, target population, sample and sampling technique, instruments of data collection, validity and reliability of instruments, method of data collection, method of data analysis, and ethical considerations.

3.1 Research design

The study adopted a descriptive cross-sectional survey design because it allowed for the collection of data at a single point in time to assess knowledge, perceptions, and factors related to delayed presentation among parents at the children's emergency unit of UBTH. This design was appropriate for identifying patterns and relationships without manipulating variables, making it efficient and suitable for the study's objectives.

3.2 Research Setting

This study will be carried out in University of Benin Teaching Hospital (UBTH), Benin City, Edo State. UBTH is a tertiary healthcare facility which was established in 1973. It is located in Ugbowo, Egor Local Government Area. Edo State comprise of 18 local government areas. Egor Local government area where University of Benin Teaching Hospital is located falls within the southern senatorial district of Nigeria. UBTH offers both clinical and diagnostic services and offers a wide range of services, which makes it an important healthcare facility in the state, region and the nation at large. It is estimated that UBTH has a bed capacity of over nine hundred and ten (910) (UBTH, 2024). UBTH has nineteen (19) clinical departments and three (3) Medical Laboratory Department and 3 emergency departments. These departments offer emergency services for the general/primary health needs of the people. They offer both

outpatient and in-patient services and they are staffed with health professionals such as Doctors, Nurses and paramedics to carry out their daily routines. The study was focused on childrens' emergency department, and provides both outpatient and inpatient services, staffed by qualified healthcare professionals such as doctors, nurses, and paramedics.

3.3 Target Population

The target population for this study comprised 240 parents or caregivers of children who presented at the children's emergency unit of the University of Benin Teaching Hospital (UBTH) within the period of the study.

3.4 Sample Size Determination

The sample size was calculated as indicated below:

Using Taro Yamane's Formula

$$n = \frac{N}{1+N(e)^2}$$

Where

N= Population under study

E= Constant 0.05%) margin error

$$n = \frac{240}{1+240(0.05)^2}$$

$$n = \frac{240}{1+240(0.0025)}$$

$$n = 240$$

1+0.6

n= 240

1.66

n= 145

Therefore, the sample size was 145.

3.5 Sampling Technique

A suitable sampling technique for this study is purposive sampling. This method was appropriate because the study focused specifically on parents whose children presented at the children's emergency unit of UBTH. These participants were deliberately selected based on their relevance to the research objectives — particularly their experience with emergency care and potential delays in presentation — making purposive sampling ideal for obtaining rich, targeted data.

3.6 Instrument for Data Collection

The instrument for data collection in this study will be self-structured questionnaire. This will be developed based on the objectives of the study. The questionnaire will be made up of four sections with. Questions which will be carefully drafted, sequenced and constructed in a bid to get in-depth information that is useful and relevant to the study will be used.

Section A: consist of the demographic data of the participants (Age, Marital Status, Current Educational Level, Ethnicity).

Section B: To assess knowledge of the consequence of delayed presentation among parents attending children emergency at University of Benin Teaching Hospital.

Section C: To determine perception of the consequence of delay presentation among parents attending children emergency at University of Benin Teaching Hospital.

Section D: To identify factors responsible for delayed presentation to emergency services among parents attending children emergency at University of Benin Teaching Hospital.

3.7 Validity of the Instrument

The instrument's validity pertained to its capability to accurately measure the intended construct or concept (Surucu & Maslakci, 2020). The researcher assessed various types of validity such as content, construct, criterion, and face to evaluate the instrument's accuracy. For this study, face and content validity were utilized to validate the research tool. The questionnaire was reviewed by both the project supervisor and a field expert, and necessary adjustments were made by the researcher before the commencement of the main study.

3.8 Reliability of the Instrument

The reliability of an instrument referred to its stability and consistency in delivering uniform outcomes when assessing the same criteria under identical circumstances (Surucu & Maslakci, 2020). It essentially gauged how consistently the instrument produced similar results across multiple trials. A reliable instrument was one that could produce the same results if the behaviour was measured again by the same scale. The Cronbach's alpha reliability technique was employed in this study. The researcher conducted reliability testing on the instrument by distributing 15 questionnaires, which constituted 10% of the total sample size of 145, to parents attending the children's emergency unit in Edo Specialist Hospital (outside the sampled population). If a coefficient of 0.71 was obtained, the instrument was considered reliable

3.9 Method of Data Collection

A well-structured questionnaire was administered to parents until the required sample size of 145 was achieved. Parents of children admitted into the children's emergency unit at the

University of Benin Teaching Hospital were approached. The purpose of the study was explained to them, and the data collection instrument was administered. Data collection was conducted by the researchers during break periods, and on-the-spot retrieval of the administered questionnaires ensured that all copies were collected on the same day. The data collection lasted for about two weeks.

3.10 Method of Data Analysis

The data collected were analyzed using the Statistical Package for the Social Sciences (SPSS) version 27.0. Descriptive statistics such as mean, frequency, and percentages were computed to summarize the data. Hypothesis testing was conducted using the Chi-square test of association, with the level of significance set at $p < 0.05$. The results of the analyses were presented using tables, graphs, frequencies, and percentages to provide a clear overview of the findings.

3.11 Ethical Considerations

Ethical approval was obtained from the Health Research Committee of the University of Benin Teaching Hospital, Benin City. Permission was also secured from the various ward managers before the commencement of the study. Prior to data collection, participants were given detailed explanations regarding the purpose, content, and implications of the research. They were assured of the confidentiality of their responses, and their personal and private information was protected.

Ethical guidelines were strictly adhered to throughout the study. These included:

- **Confidentiality**: Respondents' information was treated with strict confidentiality. No names or addresses were requested in the questionnaire, and no personal identifiers appeared in any document, ensuring anonymity and privacy.

- **Voluntary Participation**: Participation was entirely voluntary. Respondents were informed of their right to withdraw at any time without facing penalties or prejudice.
- **Avoidance of Plagiarism**: All sources used in the study were properly cited both in-text and in the reference section, ensuring academic integrity.

CHAPTER FOUR
RESULT AND FINDINGS

This chapter deals with the representation of data collected regarding the knowledge and perception on the consequence of delayed presentation among parents attending children emergency at UBTH, Edo State. A total of 145 questionnaires were distributed to parents attending children emergency at UBTH, 140 were properly filled and valid for data analysis, giving a response rate of 96.5%.

Table 4.1: Socio-demographic characteristics of respondents

Variable	Frequency (n = 140)	Percentage (%)
Age		
Under 20	9	6.4
20 - 29	41	29.3
30 – 39	47	33.6
40 – 49	28	20.0
50 and above	15	10.7
Sex		
Male	52	37.1
Female	88	62.9
Marital Status		
single	23	16.4
Married	96	68.6
Divorced	11	7.9
Widowed	10	7.1
Educational Level		
No formal education	12	8.6
Primary education	24	17.1
Secondary education	51	36.4
Tertiary education	53	37.9
Occupation		
Unemployed	17	12.1
Civil Servants	22	15.7
Trader	36	25.7
Artisan	18	12.9
Professional	29	20.7
Others (please specify)	18	12.9
Religion		
Christianity	89	63.6
Islam	38	27.1
Traditional	13	9.3
Number of children		
1	28	20.0
2 -3	56	40.0
4 – 5	38	27.1
More than 5	18	12.9

Table 4.1 Cont'd

Variable	Frequency (n = 140)	Percentage (%)
Relationship to the Child		
Mother	87	62.1
Father	38	27.1
Guardian	10	7.1
Other (please specify)	5	3.6
Residence		
Urban	68	48.6
Semi-urban	46	32.9
Rural	26	18.6
Distance from Hospital		
Less than 5 km	47	33.6
5–10 km	52	37.1
More than 10 km	41	29.3
Tribe		
Bini	59	42.1
Esan	24	17.1
Yoruba	18	12.9
Igbo	15	10.7
Hausa	13	9.3
others	11	7.9

Table 4.1 presents the socio-demographic characteristics of the respondents. Out of 140 participants, 6.4% were under 20 years, 29.3% were aged 20-29, 33.6% were aged 30-39, 20% were aged 40-49, and 10.7% were aged 50 and above. In terms of gender, 37.1% were male, 62.9% were female. Regarding marital status, 16.4% were single, 68.6% were married, 7.9% were divorced, and 7.1% were widowed. Regarding educational level, 8.6% had no formal education, 17.1% had primary education, 36.4% had secondary education, and 37.9% had tertiary education. For occupation, 12.1% were unemployed, 15.7% were civil servants, 25.7% were traders, 12.9% were artisans, 20.7% were professionals, and 12.9% had other occupations. In terms of religion, 63.6% were Christian, 27.1% were Muslim, and 9.3% practiced traditional religion. Regarding the number of children, 20% had one child, 40% had 2-3 children, 27.1% had 4-5 children, and 12.9% had more than five children. As for the relationship to the child,

62.1% were mothers, 27.1% were fathers, 7.1% were guardians, and 3.6% had other relationships to the child. Concerning residence, 48.6% lived in urban areas, 32.9% in semi-urban areas, and 18.6% in rural areas. The distance from the hospital showed that 33.6% lived less than 5 km away, 37.1% lived 5-10 km away, and 29.3% lived more than 10 km away. Finally, in terms of ethnicity, 42.1% were Bini, 17.1% were Esan, 12.9% were Yoruba, 10.7% were Igbo, 9.3% were Hausa, and 7.9% identified with other ethnic groups.

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Answering Research Questions:

Research Question 1: What is the knowledge of the consequence of delayed presentation among parents attending children emergency at University of Benin Teaching Hospital?

Table 4.2: Showing the level of knowledge of the consequence of delayed presentation among parents attending children emergency

Items	Frequency (%)	Correct (%)	Wrong (%)	Mean	Remark
What can delay presentation to the emergency unit lead to in children?					
Faster recovery	12 (8.6)				
Increased risk of complications	108 (77.1)	108 (77.1)	32 (22.9)	1.8	Good
Improved immunity	20 (14.3)				
Which of the following is a possible consequence of delayed presentation in a child with a serious illness?					
Early diagnosis	14 (10.0)				
Progression of disease	101 (72.1)	101 (72.1)	39 (27.9)	1.7	Good
Shorter hospital stay	25 (17.9)				
Delayed presentation to emergency care may result in					
Prompt treatment	19 (13.6)				
Reduced need for admission	22 (15.7)				
Increased risk of death	99 (70.7)	99 (70.7)	41 (29.3)	1.7	Good
One major danger of delayed presentation in emergencies is					
Better response to medication	17 (12.1)				
Worsening of the child's condition	104 (74.3)	104 (74.3)	36 (25.7)	1.8	Good
Reduced cost of treatment	19 (13.6)				
A child with symptoms of a severe illness who presents late to the emergency unit may experience					
Improved breathing	16 (11.4)				
Delayed diagnosis	102 (72.9)	102 (72.9)	38 (27.1)	1.7	Good
Increased appetite	22 (15.7)				

Table 4.2 Cont'd

Items	Frequency (%)	Correct (%)	Wrong (%)	Mean	Remark
Delaying a visit to the emergency room when a child is seriously ill may cause					
Faster healing	18 (12.9)				
Permanent disability	106 (75.7)	106 (75.7)	34 (24.3)	1.8	Good
Improved nutrition	16 (11.4)				
Which of the following is a likely outcome of seeking emergency care late for a child with high fever and seizures?					
Prevention of complications	15 (10.7)				
Full recovery without treatment	20 (14.3)				
Brain damage	105 (75.0)	105 (75.0)	35 (25.0)	1.8	Good
When a child with appendicitis is brought late to the emergency, a possible consequence is					
Appendicitis self-healing	13 (9.3)				
Appendix rupture	107 (76.4)	107 (76.4)	33 (23.6)	1.8	Good
Better pain control	20 (14.3)				
A major health risk associated with delayed presentation in children with infections is					
Enhanced immunity	14 (10.0)				
Development of sepsis	109 (77.9)	109 (77.9)	31 (22.1)	1.8	Good
Reduced hospital bills	17 (12.1)				
Delayed presentation of a dehydrated child to the hospital can lead to					
Improved fluid balance	18 (12.9)				
Shock	103 (73.6)	103 (73.6)	37 (26.4)	1.7	Good
Decreased need for IV fluids	19 (13.6)				
			Grand Mean	**1.8**	Good

Mean Cut-off = 1.5

Table 4.2 shows the level of knowledge of the consequence of delayed presentation among parents attending children emergency, with a grand mean score of 1.8 indicating good knowledge. The item with the highest correct response was knowledge that development of sepsis is a major health risk associated with delayed presentation in children with infections (77.9%, mean = 1.8), followed closely by awareness that increased risk of complications (77.1%, mean = 1.8), appendix rupture in cases of late appendicitis presentation (76.4%, mean = 1.8), permanent disability due to delayed emergency visits for seriously ill children (75.7%, mean = 1.8), brain damage as a likely outcome of late care for children with high fever and seizures (75.0%, mean = 1.8), worsening of the child's condition as a major danger (74.3%, mean = 1.8), progression of disease as a possible consequence of delay in serious illness (72.1%, mean = 1.7), delayed diagnosis in children with severe illness presenting late (72.9%, mean = 1.7), increased risk of death (70.7%, mean = 1.7), and shock as a result of delayed presentation in dehydrated children (73.6%, mean = 1.7). Overall, the mean scores for all items were above the cut-off of 1.5, reflecting good knowledge among the respondents regarding the risks associated with delayed presentation to emergency care.

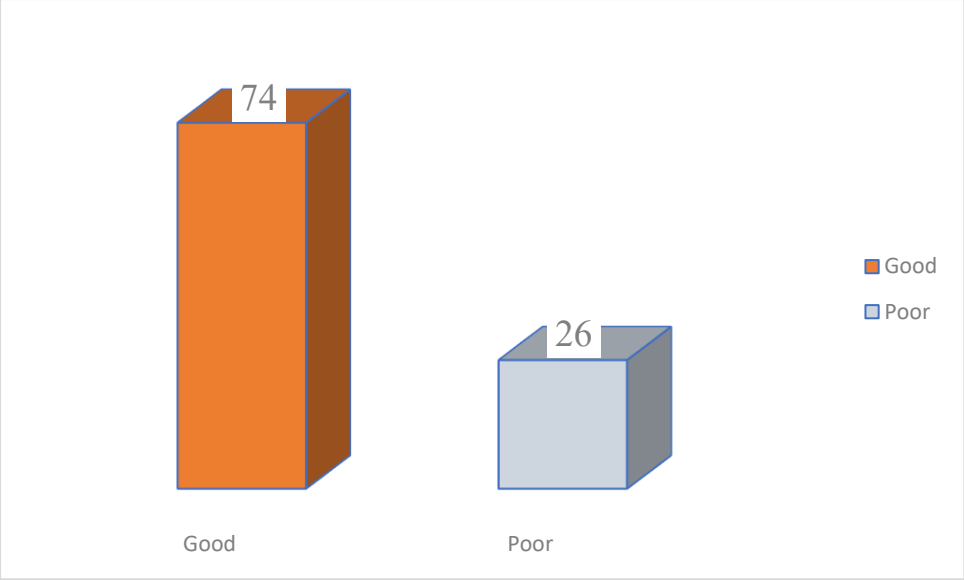

Figure 4.1: Bar chart showing the level of knowledge of the consequence of delayed presentation among parents attending children emergency

The bar chart in Figure 4.1 displays the level of knowledge of the consequence of delayed presentation among parents attending children's emergency, revealing that 104 (74%) demonstrated good knowledge, while 36 (26%) showed poor knowledge.

Research Question 2: What is the perception of the consequence of delay presentation among parents attending children emergency at University of Benin Teaching Hospital?

Table 4.3: Showing the perception of the consequence of delayed presentation among parents attending children's emergency

ITEMS	Always	Sometimes	Rarely	Never	Mean	Remark
Delaying taking a sick child to the hospital can worsen the child's condition	78 (55.7)	38 (27.1)	15 (10.7)	9 (6.4)	3.3	Positive
Parents who delay taking their children to the emergency room are taking a serious health risk.	72 (51.4)	42 (30.0)	18 (12.9)	8 (5.7)	3.3	Positive
Delayed hospital visits can lead to avoidable death in children.	81 (57.9)	36 (25.7)	13 (9.3)	10 (7.1)	3.3	Positive
I believe that early presentation to the emergency unit leads to better health outcomes.	85 (60.7)	33 (23.6)	14 (10.0)	8 (5.7)	3.4	Positive
Taking a child to the hospital late may result in longer hospital stays.	68 (48.6)	39 (27.9)	20 (14.3)	13 (9.3)	3.2	Positive
Some health complications in children are caused by delay in seeking emergency care.	76 (54.3)	40 (28.6)	13 (9.3)	11 (7.9)	3.3	Positive
Timely hospital visits are unnecessary unless the child's condition is extremely severe.	19 (13.6)	28 (20.0)	41 (29.3)	52 (37.1)	2.1	Negative
I believe financial concerns can justify delaying emergency visits for a sick child.	26 (18.6)	39 (27.9)	37 (26.4)	38 (27.1)	2.4	Negative
Delayed emergency care in children often leads to emotional stress for parents.	67 (47.9)	44 (31.4)	16 (11.4)	13 (9.3)	3.2	Positive
Cultural beliefs and traditional practices are sometimes better than immediate hospital visits.	15 (10.7)	30 (21.4)	44 (31.4)	51 (36.4)	2.1	Negative
			Grand Mean		**3.0**	

Mean Cut-off = 2.5

Table 4.3 shows the perception of the consequence of delayed presentation among parents attending children's emergency, with a grand mean score of 3.0 indicating a positive perception. The item with the highest mean value was the belief that early presentation to the emergency unit leads to better health outcomes (mean = 3.4), followed closely by perceptions that delaying taking a sick child to the hospital can worsen the child's condition (mean = 3.3), that parents who delay taking their children to the emergency room are taking a serious health risk (mean = 3.3), that delayed hospital visits can lead to avoidable death in children (mean = 3.3), and that some health complications in children are caused by delay in seeking emergency care (mean = 3.3), with taking a child to the hospital late may result in longer hospital stays (mean = 3.2) and delayed emergency care in children often leads to emotional stress for parents (mean = 3.2) also having positive means. Items reflecting negative perceptions included the beliefs that timely hospital visits are unnecessary unless the child's condition is extremely severe (mean = 2.1), that financial concerns can justify delaying emergency visits for a sick child (mean = 2.4), and that cultural beliefs and traditional practices are sometimes better than immediate hospital visits (mean = 2.1). All positive perception items had means above the cut-off of 2.5.

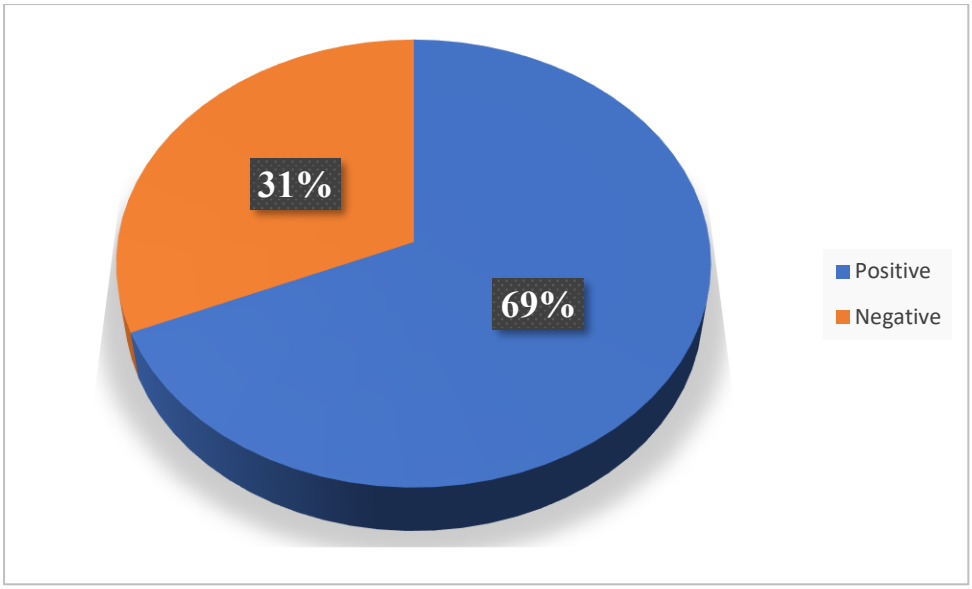

Figure 4.2: Pie chart showing the perception of the consequence of delayed presentation among parents attending children's emergency

The pie chart in figure 4.2 shows that 96 (69%) parents had a positive perception of the consequence of delayed presentation among those attending children's emergency, while 44 (31%) exhibited a negative perception.

Research Question 3: What are the factors responsible for delayed presentation to emergency services among parents attending children emergency at University of Benin Teaching Hospital?

Table 4.4: Showing the factors responsible for delayed presentation to emergency services among parents attending the children's emergency

ITEMS	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	Remark
Financial constraints prevent parents from taking their children promptly to the emergency unit.	69 (49.3)	41 (29.3)	20 (14.3)	10 (7.1)	3.2	Influential
Lack of transportation contributes to delayed hospital visits for sick children.	62 (44.3)	46 (32.9)	21 (15.0)	11 (7.9)	3.1	Influential
Long waiting times at hospitals discourage early presentation to emergency care.	58 (41.4)	40 (28.6)	25 (17.9)	17 (12.1)	3.0	Influential
Some parents delay hospital visits because they hope the child will get better at home.	66 (47.1)	43 (30.7)	20 (14.3)	11 (7.9)	3.2	Influential
Fear of high medical bills causes delay in seeking emergency care.	63 (45.0)	42 (30.0)	22 (15.7)	13 (9.3)	3.1	Influential
Lack of awareness about danger signs in children contributes to late presentation.	60 (42.9)	44 (31.4)	24 (17.1)	12 (8.6)	3.1	Influential
Cultural or traditional beliefs sometimes cause parents to delay taking children to the hospital.	55 (39.3)	38 (27.1)	28 (20.0)	19 (13.6)	2.9	Influential
Negative past experiences with healthcare workers discourage parents from early hospital visits.	49 (35.0)	45 (32.1)	27 (19.3)	19 (13.6)	2.9	Influential
Some parents rely on self-medication or over-the-counter drugs before considering emergency care.	64 (45.7)	39 (27.9)	23 (16.4)	14 (10.0)	3.1	Influential
Inadequate health education prevents parents from recognizing the urgency of a child's illness.	61 (43.6)	40 (28.6)	25 (17.9)	14 (10.0)	3.1	Influential
				Grand Mean	**3.0**	**Influential**

Mean Cut-off = 2.5

Table 4.4 shows the factors responsible for delayed presentation to emergency services among parents attending the children's emergency, with a grand mean score of 3.0 indicating a positive perception of these factors. The item with the highest mean value was the perception that financial constraints prevent parents from taking their children promptly to the emergency unit (mean = 3.2), followed closely by the belief that some parents delay hospital visits because they hope the child will get better at home (mean = 3.2), lack of transportation contributes to delayed hospital visits for sick children (mean = 3.1), fear of high medical bills causes delay in seeking emergency care (mean = 3.1), lack of awareness about danger signs in children contributes to late presentation (mean = 3.1), some parents rely on self-medication or over-the-counter drugs before considering emergency care (mean = 3.1), and inadequate health education prevents parents from recognizing the urgency of a child's illness (mean = 3.1), with long waiting times at hospitals discouraging early presentation to emergency care (mean = 3.0), cultural or traditional beliefs sometimes causing parents to delay taking children to the hospital (mean = 2.9), and negative past experiences with healthcare workers discouraging parents from early hospital visits (mean = 2.9). All items had means above the cut-off of 2.5.

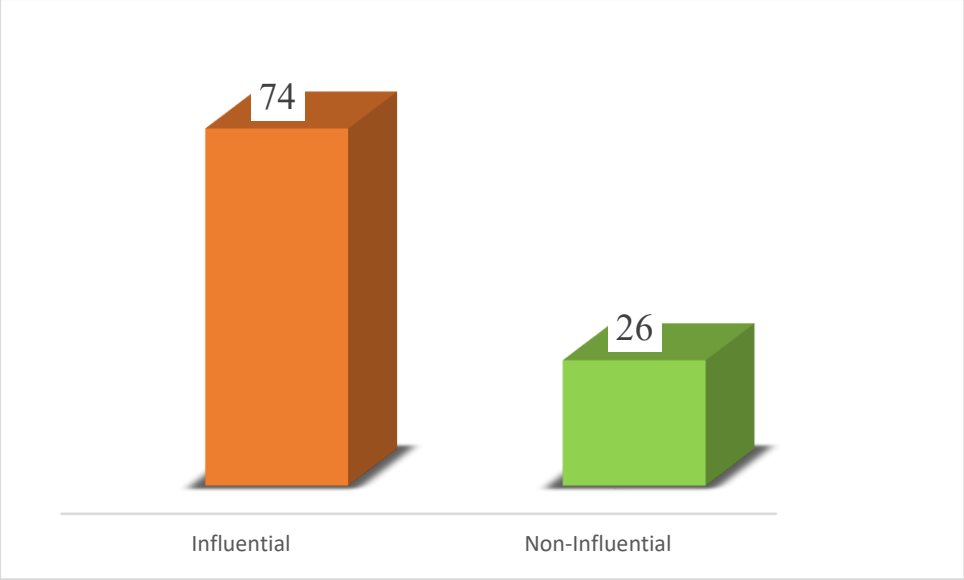

Figure 4.3: Bar chart showing factors responsible for delayed presentation to emergency services among parents attending the children's emergency

The bar chart shows that 103 (74%) parents identified influential factors responsible for delayed presentation to emergency services among those attending the children's emergency, while 37 (26%) considered these factors non-influential.

Hypothesis

Ho1: There is no significant relationship between the knowledge and perception of the consequence of delayed presentation among parents attending the children emergency at University of Benin Teaching Hospital.

Table 4.5: showing relationship between the knowledge and perception of the consequence of delayed presentation among parents attending the children emergency at University of Benin Teaching Hospital

Perception	**Knowledge**		**Test Statistics (χ^2)**	**df**	**P value**	**Decision**
	Good	**Poor**	1.12	1	**0.29**	**Accepted**
Positive	104(74)	36(26)				
Negative	96(69)	44(31)				

Table 4.5 shows the relationship between parents' knowledge of the consequence of delayed presentation and their perception among those attending the children's emergency at the University of Benin Teaching Hospital. Among parents with a positive perception, 74% had good knowledge while 26% had poor knowledge. For those with a negative perception, 69% had good knowledge and 31% had poor knowledge. The chi-square test yielded a value of 1.12 with 1 degree of freedom and a p-value of 0.29. Since the p-value is greater than 0.05, the null hypothesis is accepted, indicating no statistically significant relationship between parents' knowledge of the consequence of delayed presentation and their perception.

CHAPTER FIVE

DISCUSSION OF FINDINGS

This chapter discusses the major findings of the research compared with the literature reviewed, the implication for nursing, summary, conclusion, Recommendations and Suggestions for further Studies.

5.1. Discussion of major Findings

The study examined knowledge and perception regarding the consequences of delayed presentation among parents attending children's emergency at UBTH. The socio-demographic characteristics of respondents reveal that the majority (33.6%) were between ages 30-39, followed by 29.3% in the 20-29 age group. This age distribution aligns with previous research, such as that conducted by Abiodun and Ilori (2022), which found that caregiver age significantly influences healthcare-seeking behaviours in paediatric emergencies.

The gender distribution showed a predominance of female respondents (62.9%), which reflects the traditional caregiving roles in many households, consistent with findings by Davis et al. (2021) where mothers were 1.85 times more likely to make healthcare decisions for children. Most respondents (68.6%) were married, suggesting stable family structures, although as Breckons et al. (2023) noted, family dynamics significantly impact the moral burden of making "right" healthcare decisions during emergencies.

Educational attainment data revealed that 37.9% of respondents had tertiary education, while 36.4% had secondary education. This educational profile parallels findings from BaniHani et al. (2021), who established significant associations between caregiver education levels and healthcare knowledge. Occupationally, traders constituted the largest group (25.7%), followed by professionals (20.7%), reflecting diverse socioeconomic backgrounds that Sampagar et al. (2023) identified as critical determinants of healthcare access.

Christianity was the predominant religion (63.6%), with Islam accounting for 27.1% of respondents. Most participants (40.0%) had 2-3 children, consistent with Pickering et al.'s (2022) observations that family size influences healthcare resource allocation decisions. The relationship profile showed mothers (62.1%) as primary respondents, supporting Smith et al.'s (2021) findings that maternal presence often determines the timing of hospital presentation in paediatric emergencies.

Regarding residence, 48.6% lived in urban areas, 32.9% in semi-urban, and 18.6% in rural settings. This distribution is noteworthy as Keating et al. (2022) demonstrated that geographic setting significantly impacts referral pathways and delay patterns. Distance from the hospital revealed that 37.1% lived 5-10 km away, while 33.6% resided within 5 km, factors that Faye et al. (2024) identified as critical determinants in timely access to specialized healthcare services.

Level of knowledge of the consequence of delayed presentation among parents attending children emergency.

Results revealed that 74% of parents demonstrated good knowledge of the potential consequences, while 26% showed poor knowledge. This finding indicates a relatively high awareness level among the study population, which contrasts with research conducted by BaniHani et al. (2021), who found that 82% of mothers demonstrated poor knowledge about their children's oral health conditions, suggesting that knowledge levels may vary significantly depending on the specific health concern and population studied. When examining specific knowledge areas, 77.1% of respondents correctly identified that delayed presentation could lead to increased risk of complications. This aligns with findings from Smith et al. (2021), who established that delayed presentation beyond 48 hours from symptom onset was associated with significantly higher mortality rates (OR 1.85) among children with sepsis in Tanzania.

Similarly, 72.1% of respondents accurately recognized that disease progression was a possible consequence of delayed presentation, echoing concerns raised by Davis et al. (2021), who reported that 43.2% of caregivers who delayed emergency department visits during the COVID-19 pandemic acknowledged their child's condition worsened during the delay.

The study found that 70.7% of parents understood that delayed presentation could increase the risk of death, which correlates with Keating et al.'s (2022) finding that 86.7% of pediatric deaths in their Tanzanian study occurred among children who had first sought care elsewhere before reaching the referral hospital. Additionally, 74.3% of respondents correctly identified that worsening of the child's condition was a major danger of delayed presentation, consistent with Pickering et al.'s (2022) qualitative findings where participants typically recognized the severity of illness only one day prior to seeking care, despite symptoms being present for a median of 5.5 days. Notably, 75% of parents accurately recognized the risk of brain damage as a likely outcome of seeking emergency care late for a child with high fever and seizures. This knowledge level is encouraging compared to Carpenter et al.'s (2022) findings, where only 56% of parents correctly identified neurocognitive impairment as a potential late effect of cancer treatment, suggesting better general awareness of acute neurological emergencies compared to long-term treatment complications.

Furthermore, 76.4% correctly identified appendix rupture as a consequence of delayed presentation in appendicitis cases, and 77.9% recognized the development of sepsis as a major risk associated with delayed presentation in children with infections. These findings suggest better knowledge than reported by Abdulrahman et al. (2023), who found that 54.92% of respondents had never heard of undescended testis, highlighting that knowledge levels may vary significantly across different paediatric conditions.

The overall good knowledge observed in this study (grand mean of 1.8) suggests improvements compared to earlier studies like Gogate & Sil (2021), which identified lack of awareness as a major reason for initial delay in paediatric cataract treatment. However, the presence of a knowledge gap in 26% of respondents remains concerning and aligns with Faye et al.'s (2024) observation that knowledge deficits contribute significantly to diagnostic delays across various health conditions.

Perception of the consequence of delay presentation among parents attending children emergency.

The study revealed that 69% of parents demonstrated positive perception regarding the consequences of delayed presentation, while 31% exhibited negative perception. This finding reflects a generally appropriate understanding of the risks associated with delayed care-seeking, though the proportion with negative perceptions remains concerning. These results parallel the findings of Breckons et al. (2023), who identified risk perception as a major theme influencing healthcare decision-making among parents during the COVID-19 pandemic in the UK. When examining specific perception items, 55.7% of parents always believed that delaying taking a sick child to the hospital could worsen the child's condition, with an additional 27.1% holding this belief sometimes. This positive perception aligns with Davis et al.'s (2021) finding that 43.2% of caregivers who delayed emergency department visits during the pandemic acknowledged their child's condition worsened during the delay, suggesting experiential learning may influence perceptions. Similarly, 51.4% of respondents always perceived that parents who delay taking their children to the emergency room are taking a serious health risk, consistent with Smith et al.'s (2021) evidence that delayed presentation beyond 48 hours significantly increased mortality odds (OR 1.85) in paediatric sepsis cases.

Notably, 57.9% of parents always believed that delayed hospital visits could lead to avoidable death in children, while 60.7% always perceived that early presentation leads to better health outcomes. These perceptions align with Keating et al.'s (2022) finding that 86.7% of paediatric deaths in their Tanzanian study occurred among children who had first sought care elsewhere before reaching the referral hospital. Additionally, 48.6% of respondents always recognized that delayed presentation might result in longer hospital stays, reflecting an understanding similar to findings in Raucci et al.'s (2021) study, which showed increased hospitalization rates during pandemic-related delays. However, some concerning negative perceptions were identified. For instance, 13.6% of parents always believed and 20% sometimes believed that timely hospital visits were unnecessary unless the child's condition was extremely severe. This mirrors findings from Pickering et al.'s (2022) qualitative study in Uganda, where participants typically recognized illness severity only one day prior to seeking care, despite symptoms being present for a median of 5.5 days. Furthermore, 18.6% always perceived and 27.9% sometimes perceived that financial concerns could justify delaying emergency visits, echoing financial barriers identified by Abiodun and Ilori (2022) as significant determinants of delayed presentation.

Perhaps most concerning, 10.7% of parents always believed and 21.4% sometimes believed that cultural beliefs and traditional practices were better than immediate hospital visits. This finding resonates with Gogate & Sil's (2021) commentary, which highlighted how cultural factors and traditional healthcare-seeking behaviours contributed to delays in paediatric cataract treatment, and with Pickering et al.'s (2022) identification of cultural beliefs as a key theme in emergency care delays in rural Uganda.

The overall positive perception (grand mean of 3.0) suggests improvements compared to earlier studies like Abdulrahman et al.'s (2023), which found that 22.3% of respondents cited lack of community awareness as the primary reason for delayed intervention in undescended testis

cases. However, the presence of negative perceptions in 31% of respondents remains concerning and aligns with Appleby et al.'s (2022) identification of trust, safety, and uncertainty as interlinked themes influencing caregivers' healthcare decision-making during crises.

Factors responsible for delayed presentation to emergency services among parents attending children emergency

Findings of the study revealed that 74% of parents identified influential factors responsible for delayed presentation to emergency services among those attending the children's emergency, while 26% considered these factors non-influential. This high recognition of delay factors suggests considerable awareness of barriers to timely care, consistent with Pickering et al.'s (2022) qualitative study in Uganda, which identified multiple systemic challenges to emergency care utilization in rural settings. Financial constraints emerged as a prominent factor, with 49.3% of parents strongly agreeing and 29.3% agreeing that they prevent prompt presentation to emergency units. This finding strongly aligns with Faye et al.'s (2024) study, which identified socioeconomic status as a significant determinant of diagnostic delays, and with Sampagar et al.'s (2023) research showing that children from low-income backgrounds experienced significantly higher diagnostic delays for paediatric cancers. Similarly, 45.0% strongly agreed and 30.0% agreed that fear of high medical bills causes delay in seeking emergency care, echoing Abiodun and Ilori's (2022) finding that socioeconomic status was significantly associated (P=0.003) with delayed presentation of children with severe malaria.

Transportation barriers were acknowledged by 44.3% (strongly agree) and 32.9% (agree) of respondents as contributing to delayed hospital visits. This mirrors Keating et al.'s (2022) findings in Tanzania, where transportation challenges resulted in median delays of 10.2 hours for patients first visiting local clinics before reaching referral hospitals. Additionally, 41.4%

strongly agreed and 28.6% agreed that long waiting times at hospitals discourage early presentation, a finding that resonates with Breckons et al.'s (2023) identification of system-related barriers contributing to parental hesitation in seeking emergency care.

The hope that children will recover at home was identified as influential by 47.1% (strongly agree) and 30.7% (agree) of parents, supporting Smith et al.'s (2021) observation that delayed presentation (>48 hours from fever onset) significantly increased mortality risk in paediatric sepsis cases. Furthermore, 42.9% strongly agreed and 31.4% agreed that lack of awareness about danger signs contributes to late presentation, consistent with Gogate & Sil's (2021) commentary identifying lack of awareness as a major reason for initial delay in paediatric cataract treatment and with Abdulrahman et al.'s (2023) finding that 54.92% of respondents had never heard of undescended testis.

Cultural and traditional beliefs were identified as influential delay factors by 39.3% (strongly agree) and 27.1% (agree) of respondents, aligning with Pickering et al.'s (2022) identification of cultural beliefs as a key theme in emergency care delays, and with Abiodun and Ilori's (2022) finding of ethnic disparities in presentation delays. Additionally, 35.0% strongly agreed and 32.1% agreed that negative past experiences with healthcare workers discourage early hospital visits, echoing Appleby et al.'s (2022) identification of trust as a critical factor influencing caregivers' healthcare decision-making.

Self-medication before seeking emergency care was acknowledged as influential by 45.7% (strongly agree) and 27.9% (agree) of parents, reflecting similar findings in Sampagar et al.'s (2023) study where patient delay (median 30 days) significantly exceeded physician delay (median 7 days) in paediatric cancer diagnosis. Moreover, 43.6% strongly agreed and 28.6% agreed that inadequate health education prevents recognition of illness urgency, corresponding

with Carpenter et al.'s (2022) finding that only 11.46% of parents correctly identified all potential late effects their children might face from cancer treatment.

The overall influential perception of delay factors (grand mean of 3.0) underscores the multifactorial nature of barriers to timely paediatric emergency care, consistent with Davis et al.'s (2021) identification of multiple predictors of delayed emergency department presentation during the COVID-19 pandemic, including caregiver age, relationship to child, and economic concerns. These findings highlight the need for comprehensive interventions addressing both system-level and individual-level barriers to improve timely access to paediatric emergency services.

5.2 Implication to nurses

The findings of this study have several important implications for nursing practice, particularly in paediatric emergency care. Firstly, the high level of knowledge and relatively positive perception among parents regarding the consequences of delayed presentation underscores the need for nurses to reinforce and build on this awareness during routine patient interactions. Nurses should actively engage in parental education, emphasizing early recognition of danger signs and the importance of timely healthcare-seeking behaviour.

Secondly, the presence of significant barriers such as financial constraints, transportation difficulties, and cultural beliefs highlights the need for nurses to serve as advocates for patients by identifying at-risk families and facilitating access to support services, including social work and community outreach programs. This advocacy role is crucial in mitigating delay factors and ensuring prompt presentation to emergency care.

Furthermore, the findings suggest that nurses must foster culturally sensitive care practices, addressing traditional beliefs without judgment to encourage trust and collaboration with families. Negative past experiences with healthcare workers were also cited as deterrents; thus,

nurses must maintain professional, compassionate, and respectful communication to improve the healthcare experience and encourage timely presentation in the future.

Finally, nurses in paediatric settings should participate in public health initiatives and community education programs aimed at increasing awareness of emergency symptoms, reducing reliance on self-medication, and promoting the utilization of formal healthcare systems. Through these interventions, nurses can play a central role in improving outcomes and reducing preventable complications and mortality associated with delayed presentations

5.3 Summary

This study assessed the knowledge and perception of the consequences of delayed presentation among parents attending the children's emergency unit at the University of Benin Teaching Hospital (UBTH), Edo State. The findings revealed that a majority of the respondents had good knowledge and a generally positive perception regarding the risks associated with delayed presentation. Most parents were aware that delays could lead to complications, disease progression, longer hospital stays, and even death.

Despite this awareness, several factors were identified as contributing to delayed presentation. These included financial difficulties, transportation challenges, cultural and traditional beliefs, previous negative experiences with healthcare providers, and a lack of awareness of early warning signs. These barriers underscore the complex and multifactorial nature of delays in seeking emergency care.

The study also highlighted the critical role of nurses in health education, advocacy, and community engagement to promote timely healthcare-seeking behaviour. Addressing these barriers through targeted interventions could significantly reduce preventable morbidity and mortality in paediatric emergency cases.

5.4 Conclusion

This study concludes that while most parents attending the children's emergency unit at UBTH possess good knowledge and a positive perception of the consequences of delayed presentation, significant barriers still hinder timely access to emergency care. Factors such as financial constraints, transportation issues, cultural beliefs, and lack of awareness continue to contribute to delays, despite an overall awareness of the associated risks.

The findings underscore the urgent need for targeted health education, improved access to healthcare services, and culturally sensitive interventions. Nurses, as frontline caregivers and educators, play a pivotal role in addressing these challenges by promoting awareness, fostering trust, and advocating for policies that reduce delays in paediatric emergency care. Strengthening community engagement and health system responsiveness will be key to improving health outcomes for children.

5.5 Limitations of study

This study has some limitations. Firstly, the use of self-reported questionnaires may have introduced social desirability bias, with participants potentially overstating their knowledge or positive perceptions. Secondly, the study was limited to a single tertiary hospital (UBTH), which may restrict the generalizability of the findings to other settings or regions. Thirdly, the cross-sectional design captures information at only one point in time, making it difficult to establish causal relationships. Lastly, cultural and language differences may have affected respondents' understanding of some questions, despite efforts to ensure clarity.

Recommendation

Based on the findings of this study, the following recommendations are made to improve parents' knowledge, perception, and practices regarding timely presentation to emergency services for their children:

1. Include education on the risks of delayed presentation and the importance of early care in community outreach and hospital settings, particularly in paediatric units.
2. Provide subsidized or free emergency care services and improve transportation options, especially in rural areas, to reduce delays due to financial and logistical challenges.
3. Use various media platforms, including radio, television, and social media, to raise awareness about the consequences of delayed care and the importance of early hospital visits for children.
4. Engage with community leaders to address harmful cultural practices and strengthen trust in healthcare systems through improved communication and empathetic care.
5. Involve fathers and extended family members in health education initiatives and emergency preparedness programs to promote a collective approach to child health care

5.7 Suggestion for Further study

Based on the findings and limitations of this study, the following suggestions for further research are proposed:

1. Further studies could explore how varying socioeconomic statuses (e.g., income, employment) influence parents' healthcare-seeking behaviours and decision-making, particularly in paediatric emergencies.
2. Research could investigate the role of fathers and other family members in decisions regarding paediatric emergency care, considering their influence on timely presentation and child health outcomes.

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APPENDIX

FACULTY OF NURSING SCIENCES, COLLEGE OF MEDICAL SCIENCES

UNIVERSITY OF BENIN, BENIN CITY

Dear Respondent,

I am a 500 level student of the department of nursing in the above-named institution. I am carrying out a research study on the topic; Knowledge And Perception On The Consequence Of Delayed Presentation Among Parents Attending Children Emergency At UBTH**.** Please kindly assist me by indicating your opinion where necessary

Yours faithfully,

Instruction: please do not write your name, provide and tick the appropriate answer.

SECTION A: Socio-Demographic Data

1. **Age:** ☐ Under 20 ☐ 20–29 ☐ 30–39 ☐ 40–49 ☐ 50 and above
2. **Sex:** ☐ Male ☐ Female
3. **Marital Status:** ☐ Single ☐ Married ☐ Divorced ☐ Widowed
4. **Educational Level:** ☐ No formal education ☐ Primary education ☐ Secondary education ☐ Tertiary education
5. **Occupation:** ☐ Unemployed ☐ Civil servant ☐ Trader ☐ Artisan ☐ Professional ☐ Others (please specify): _____
6. **Religion:** ☐ Christianity ☐ Islam ☐ Traditional ☐ Others (please specify): _____
7. **Number of Children:** ☐ 1 ☐ 2–3 ☐ 4–5 ☐ More than 5

8. **Relationship to the Child:** ☐ Mother ☐ Father ☐ Guardian ☐ Other (please specify): _____

9. **Residence:** ☐ Urban ☐ Semi-urban ☐ Rural

10. **Distance from Hospital:** ☐ Less than 5 km ☐ 5–10 km ☐ More than 10 km

11. **Tribe**: Bini ( ) Esan ( ) Yoruba ( ) Igbo ( ) Hausa ( ) others _____

Section B: To assess knowledge of the consequence of delayed presentation among parents attending children emergency

1. What can delayed presentation to the emergency unit lead to in children?
( ) Faster recovery ( ) Increased risk of complications ( ) Improved immunity

2. Which of the following is a possible consequence of delayed presentation in a child with a serious illness? ( ) Early diagnosis ( ) Progression of disease
( ) Shorter hospital stay

3. Delayed presentation to emergency care may result in:
( ) Prompt treatment ( ) Reduced need for admission ( ) Increased risk of death

4. One major danger of delayed presentation in emergencies is: ( ) Better response to medication ( ) Worsening of the child's condition ( ) Reduced cost of treatment

5. A child with symptoms of a severe illness who presents late to the emergency unit may experience: ( ) Improved breathing ( ) Delayed diagnosis ( ) Increased appetite

6 **. Delaying a visit to the emergency room when a child is seriously ill may cause:**
( ) Faster healing ( ). Permanent disability ( ) Improved nutrition

7. Which of the following is a likely outcome of seeking emergency care late for a child with high fever and seizures? ( ) Prevention of complications ( ) Full recovery without treatment ( ) Brain damage

8. When a child with appendicitis is brought late to the emergency, a possible consequence is: ( ) Appendicitis self-healing ( ) Appendix rupture ( ) Better pain control

9. A major health risk associated with delayed presentation in children with infections is: ( ) Enhanced immunity ( ) Development of sepsis ( ) Reduced hospital bills

10. Delayed presentation of a dehydrated child to the hospital can lead to:
( ) Improved fluid balance ( ) . Shock ( ) Decreased need for IV fluids

Objective Two – assessing the **perception of the consequence of delayed presentation** among parents attending children's emergency at University of Benin Teaching Hospital:

Please indicate your level of agreement with the following statements:

Statement	**Always**	**Sometimes**	**Rarely**	**Never**
Delaying taking a sick child to the hospital can worsen the child's condition				
Parents who delay taking their children to the emergency room are taking a serious health risk.				
Delayed hospital visits can lead to avoidable death in children.				
I believe that early presentation to the emergency unit leads to better health outcomes.				
Taking a child to the hospital late may result in longer hospital stays.				
Some health complications in children are caused by delay in seeking emergency care.				
Timely hospital visits are unnecessary unless the child's condition is extremely severe.				
I believe financial concerns can justify delaying emergency visits for a sick child.				
Delayed emergency care in children often leads to emotional stress for parents.				
Cultural beliefs and traditional practices are sometimes better than immediate hospital visits.				

Objective Three – to identify the **factors responsible for delayed presentation** to emergency services among parents attending the children's emergency at the University of Benin Teaching Hospital:

Please indicate your level of agreement with the following statements:

Please indicate your level of agreement with the following statements:

(Strongly Agree, Agree, Disagree, Strongly Disagree)

Statement	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
Financial constraints prevent parents from taking their children promptly to the emergency unit.				
Lack of transportation contributes to delayed hospital visits for sick children.				
Long waiting times at hospitals discourage early presentation to emergency care.				
Some parents delay hospital visits because they hope the child will get better at home.				
Fear of high medical bills causes delay in seeking emergency care.				
Lack of awareness about danger signs in children contributes to late presentation.				
Cultural or traditional beliefs sometimes cause parents to delay taking children to the hospital.				
Negative past experiences with healthcare workers discourage parents from early hospital visits.				
Some parents rely on self-medication or over-the-counter drugs before considering emergency care.				
Inadequate health education prevents parents from recognizing the urgency of a child's illness.				

RELIABILITY OF INSTRUMENT

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
0.71	0.70	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
What can delayed presentation to the emergency unit lead to in children?	53.4931	15.077	-.047	.701
Which of the following is a possible consequence of delayed presentation in a child with a serious illness?	54.1111	15.302	.204	.210
Delayed presentation to emergency care may result in:	53.4167	15.126	-.061	.185
One major danger of delayed presentation in emergencies is:	87.3188	27.590	-.123	.099
A child with symptoms of a severe illness who presents late to the emergency unit may experience:	87.4813	26.138	.053	.092
Delaying a visit to the emergency room when a child is seriously ill may cause:	53.4931	15.077	-.047	.565
Which of the following is a likely outcome of seeking emergency care late for a child with high fever and seizures?	53.2986	14.141	.055	.196
When a child with appendicitis is brought late to the emergency, a possible consequence is:				
A major health risk associated with delayed presentation in children with infections is:	87.3188	27.590	-.123	.099
Delayed presentation of a dehydrated child to the hospital can lead to:	87.4813	26.138	.053	.092
Delaying taking a sick child to the hospital can worsen the child's condition	53.4931	15.077	-.047	.165
Parents who delay taking their children to the emergency room are taking a serious health risk	87.2313	27.034	-.044	.078
Delayed hospital visits can lead to avoidable death in children	87.3188	27.590	-.123	.099
I believe that early presentation to the emergency unit leads to better health outcomes	87.3188	27.590	-.123	.099
Taking a child to the hospital late may result in longer hospital stays	87.4813	26.138	.053	.092
Some health complications in children are caused by delay in seeking emergency care	53.4931	15.077	-.047	.165

Timely hospital visits are unnecessary unless the child's condition is extremely severe	87.4500	25.582	..125	.071
I believe financial concerns can justify delaying emergency visits for a sick child	87.3188	27.590	-.123	.099
Delayed emergency care in children often leads to emotional stress for parents	87.4813	26.138	.053	.092
Cultural beliefs and traditional practices are sometimes better than immediate hospital visits	87.3188	27.590	-.123	.099
Financial constraints prevent parents from taking their children promptly to the emergency unit	87.4813	26.138	.053	.092
Lack of transportation contributes to delayed hospital visits for sick children				
Long waiting times at hospitals discourage early presentation to emergency care	87.3188	27.590	-.123	.099
Some parents delay hospital visits because they hope the child will get better at home	87.4813	26.138	.053	.092
Fear of high medical bills causes delay in seeking emergency care				
Lack of awareness about danger signs in children contributes to late presentation	87.6438	27.325	-.076	.081
Cultural or traditional beliefs sometimes cause parents to delay taking children to the hospital	87.5938	26.658	.058	.077
Negative past experiences with healthcare workers discourage parents from early hospital visits	87.3188	27.590	-.123	.099
Some parents rely on self-medication or over-the-counter drugs before considering emergency care	87.4813	26.138	.053	.092
Inadequate health education prevents parents from recognizing the urgency of a child's illness	86.2813	26.719	-.064	.095

Comment: The reliability analysis using Cronbach's Alpha, yielding a result of 0.71, for the overall scale. Additionally, the Cronbach's Alpha of 0.52 when the items are standardized. These values suggest a good level of internal consistency among the items in this scale.

HEALTH RESEARCH ETHICS COMMITTEE (HREC)
UNIVERSITY OF BENIN TEACHING HOSPITAL
P.M.B. 1111 BENIN CITY NIGERIA Telephone: 052-600418 Website: ubth.org

CHIEF MEDICAL DIRECTOR
Prof. Darlington E. Obaseki
E-mail: darlobaseki@gmail.com

DIRECTOR OF ADMINISTRATION
Jim Uwadie, Esq

CHAIRMAN
Prof. (Mrs.) Antoinette N. Ofili

HREC OFFICE:
Committee email: ubthresearchethics@gmail.com
Registration Number:
NHREC-UBTH-HREC/24/12/2022B

PROTOCOL NUMBER: ADM/E 22/A/VOL.VII/2025/75

PROPOSAL TITLE: "KNOWLEDGE AND PERCEPTION ON THE CONSEQUENCE OF DELAYED PRESENTATION AMONG PARENTS ATTENDING CHILDREN EMERGENCY WARD AT TERTIARY INSTITUTION, BENIN CITY"

PRINCIPAL INVESTIGATOR(S): ADUBALE ANTHONIA

DEPARTMENT/INSTITUTION: DEPARTMENT OF NURSING SCIENCE, SCHOOL OF BASIC MEDICAL SCIENCES UNIVERSITY OF BENIN, BENIN CITY, EDO STATE

DATE CONSIDERED: APRIL 25TH, 2025

DECISION OF THE COMMITTEE: APPROVED

THIS APPROVAL DATES 25/4/2025 TO 24/4/2026. IF THERE IS DELAY IN STARTING THE RESEARCH, PLEASE INFORM THE HREC SO THAT THE DATES OF APPROVAL CAN BE ADJUSTED ACCORDINGLY

REMARK:

CHAIRMAN: PROF. (MRS) A.N. OFILI **SIGNATURE & DATE**..April 25/4/2025.....

SUPERVISOR (S): MRS. R. LAWAL

DECLARATION BY INVESTIGATOR(S):
PROTOCOL NUMBER (please quote in all enquiries)
Note that no participant accrual or activity related to this research may be conducted outside of these dates. All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study. In multiyear research, endeavor to submit your annual re-port to the HREC early in order to obtain renewal of your approval and avoid disruption of your research. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification

Signature & Date.....