EXPERIENCES OF ESCORT NURSES ON WAITING TIME AND ASSOCIATED CHALLENGES IN THE EMERGENCY DEPARTMENT AT PRINCESS MARINA HOSPITAL IN GABORONE, BOTSWANA

By

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BNS

A Dissertation submitted to the University of Zambia in partial fulfilment of the requirements for the award of the Degree of Master of Science in Emergency and Trauma Nursing

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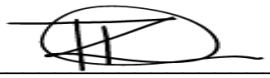
DECLARATION

I, **Tapiwa Bojosi,** hereby declare that this dissertation presented for the Master of Science in Emergency and Trauma Nursing represents my work, and it has not previously been submitted for a degree, diploma, or other qualification at this or any other University.

Signature:  Date: _____

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ABSTRACT

Experiences of Escort Nurses on Waiting Time and Associated Challenges in the Emergency Department at Princess Marina Hospital in Gaborone, Botswana.

Tapiwa Bojosi

Emergency Departments are vital in providing timely care to patients. However, these departments face persistent and prolonged waiting times, which affect patient satisfaction, staff welfare, and healthcare delivery. Escort nurses play a crucial role in inter-facility patient transfer by accompanying, supporting, and caring for patients throughout their emergency department visits. Therefore, they are well-positioned to provide insights into the effects of waiting times. The study explored the experiences of escort nurses on waiting times and associated challenges in the emergency department at Princess Marina Hospital in Gaborone, Botswana. A qualitative, phenomenological, descriptive design was adopted to thoroughly understand and gain detailed insights into the experiences of escort nurses on waiting times, associated challenges and the overall referral system. Data was collected from 11 escort nurses through in-depth interviews, then analysed thematically and coded using ATLAS.ti software. The study findings revealed three main themes: resource limitations in the Princess Marina Hospital emergency department, operational challenges in the Princess Marina Hospital emergency department, and effects of long waiting times. The study elaborated on several challenges associated with prolonged waiting times, such as the structure of the emergency department, equipment and staff shortages, lack of essential facilities, inefficient referral and triage processes, and inefficient emergency communication. These findings elucidate the adverse effects of prolonged emergency department waiting times on escort nurses, highlighting how this affects their physical and emotional well-being and reduces job satisfaction. Extended waiting times affect escort nurses and the entire healthcare system, potentially exacerbating mistrust and negative perceptions of the system. This insight is vital for promoting change through process reengineering and enhancing the referral system to reduce waiting time, improve patient care and nurses' wellbeing.

Keywords: *Emergency Department, Waiting Time, Escort Nurses, Experiences, Challenges.*

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ABBREVIATIONS/ ACRONYMS

A&E	Accident and Emergency
AFCEM	African Conference on Emergency Medicine
CAQDAS	Computer-assisted Qualitative Data Analysis Software
CT	Computed Tomography
ECSACON	East, Central and Southern Africa College of Nursing
ED	Emergency Department
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
HRDC	Health Research and Development Committee
IEC	Information, Education, and Communication
IPMS	Integrated Patient Management System
LOS	Length of Stay
LWBS	Left Without Being Seen
MOH	Ministry of Health
NHRA	National Health Research Authority
OPD	Outpatient Department
PMH	Princess Marina Hospital
SATS	South African Triage Scale
UNZA	University of Zambia
UNZABREC	University of Zambia Biomedical Research Ethics Committee
WHO	World Health Organisation

CHAPTER ONE
INTRODUCTION AND BACKGROUND

1.1 Introduction

Waiting time in the Emergency Department (ED) is one of the key performance indicators that influences the quality of care, client satisfaction and overall hospital efficiency. Several factors influence the time patients spend in the emergency department. According to Al Ndhi et al. (2021), staff availability, infrastructure, resource allocation, and patient inflow all contribute to determining the efficiency of an emergency department. Hospitals with resource limitations face overcrowding, which results in extended waiting times and patient dissatisfaction (Kenny, Chang and Hemmert, 2020). Siamisang et al. (2020) articulated that Princess Marina Hospital (PMH) faces the challenge of prolonged patient waiting time. These delays affect patients and their escorts, including escort nurses and other healthcare providers. The purpose of the current study was thus to explore the lived experiences of escort nurses on waiting time in the ED of PMH in Gaborone, Botswana.

The first chapter illustrates the research topic, its significance, a statement of the problem, and the research question. It also provides detailed background information on emergency department waiting times in the global, regional, and local contexts.

1.2 Background of the study

The ED is a pivotal gateway within global healthcare systems, providing immediate care to patients with urgent and emergency medical conditions (Lobatse et al., 2024). These departments are designed to operate around the clock, ensuring that individuals requiring immediate medical attention promptly receive the care they need. The functional essence of EDs extends beyond their immediate response capability. According to Batt and Terwiesch (2015) EDs are at the forefront of meeting public health needs by providing acute care and conducting crucial medical assessments. This highlights the wide range of services that EDs offer, from treating minor injuries to handling severe life-threatening situations, underscoring their critical role in acute care. Aringhieri et al. (2017) found that the availability of emergency services played a crucial role in reducing death rates by ensuring timely medical responses, particularly in critical cases.

The importance of EDs has been further amplified in referral hospitals. These institutions are at the apex of healthcare networks and often handle the most critical cases transferred from lower-level facilities (Marsilio et al., 2022). Given the treatment's complexity and severity, the EDs of referral hospitals bear significant responsibility. They must undertake swift and accurate assessments to prioritise care delivery, ensuring that life-threatening conditions are addressed immediately (Treleaven et al., 2017; Tsai et al., 2023). This necessitates a high level of organisation and resources, and an acute understanding of these departments' critical role in saving lives and stabilising patients before further treatment. Therefore, efficient ED operations in referral hospitals are crucial.

Prolonged waiting time in EDs represent a critical and widespread challenge in global healthcare delivery, indicating inefficiencies within the system. These delays often result from a multifaceted combination of factors, including demand exceeding available capacity, limited resources, and procedural bottlenecks, which invariably impact the delicate balance between the demand for urgent care and the ability to provide timely and high-quality medical services. For instance, Paling et al. (2020) established a direct correlation between higher inpatient bed occupancy rates and extended ED waiting times. Specifically, hospitals at full capacity (100% bed occupancy) saw a 9-percentage-point increase in patients waiting over four hours compared to when the occupancy was 85%. Similarly, the National Center for Health Statistics (2017) reported that EDs with higher annual visit volumes had longer wait times, indicating a clear relationship between ED usage intensity and wait times. For example, EDs with fewer than 20,000 visits reported a mean wait time of 24.1 minutes, whereas those handling over 50,000 visits per year faced a mean wait time of up to 48.7 minutes.

Additionally, a study by Al Nhdi et al. (2021) revealed a significant patient distribution based on wait times, where 73.5% of emergency patients were attended to within 4 hours of registration or triage, while 26.5% experienced delays exceeding this duration. Together, these studies highlight how hospital occupancy and the number of ED visits affect waiting times. Hospitals that are nearly at full capacity struggle to manage the flow of patients effectively, resulting in longer waiting times. Furthermore, the increase in ED visits exacerbates these delays, highlighting resource allocation and process management issues in emergency care. Thus, there is an urgent need for system-wide

changes to make operations more efficient, better manage resources, and improve patient flow, aiming to reduce the increasing issue of long emergency department waiting times.

Botswana's healthcare system has a tiered structure aimed at providing health services nationwide, focusing on accessible, equitable, and efficient care. Despite fighting HIV/AIDS effectively, it faces issues such as limited resources, staffing problems, and rising non-communicable diseases, along with infectious diseases (Azevedo & Azevedo, 2017; Seloilwe et al., 2023). Most medical resources and facilities are in cities, such as Gaborone, leaving rural areas lacking (Nkomazana, 2022). This affects referral hospital ED efficiency, where resource shortages can delay patient care, impacting emergency responses and patient health. A study conducted by Siamisang et al. (2022) in the PMH ED revealed that 71.7% of trauma patients experienced long waiting times and prolonged lengths of stay, which shows that this is a cause for concern in Botswana's healthcare system.

As Lobatse et al. (2024) articulated, PMH, a referral hospital at the apex of Botswana's public sector’s referral pyramid, receives patients from all corners of the country, resulting in an influx. The ED in PMH functions as both a point of admission for walk-in patients and a point of entry for patients transferred from lower-level facilities (Mamalelala et al., 2023). According to hospital reports, of all the patients received in the PMH ED, more than 50% are referred from lower-level facilities and are escorted by a nurse. During an inter-facility patient transfer, the escorting nurse is expected to accompany the patient from arrival in the ED until the patient physically leaves the ED, meaning that the nurse experiences the entire length of stay in the ED with the patient. Given these dynamics, the context of Botswana provides a compelling backdrop for studying the experiences of escorting nurses on waiting time and associated challenges in the ED of PMH. Understanding these experiences about ED waiting time offers valuable insights into the operational challenges and opportunities for enhancing healthcare delivery in Botswana's referral hospitals.

1.3 Statement of the problem

Prolonged waiting time in African EDs is primarily due to specific issues within the healthcare system. Africa faces challenges such as poor healthcare infrastructure, staff shortages, unequal resource distribution, and increasing pressure on EDs, leading to long

waits and worse patient outcomes (Clausen, 2015). Oleribe et al. (2019) identified a lack of staff, limited health budgets, and ineffective leadership contributing to long ED waiting time. These issues affect emergency care and broader problems in Africa's public health and emergency readiness, highlighting concerns with fairness, resource allocation, and healthcare policy.

In Sub-Saharan Africa, the struggle with ED waiting time is exacerbated by the region's substantial burden of both communicable and non-communicable diseases. A study by Mashao et al. (2021) reported an alarming mean length of stay in the ED of 73 hours and 49 minutes, highlighting the severity of waiting time issues in the region. Although detailed statistical research on ED waiting time in Botswana is sparse, hospital reports indicate considerable concerns regarding waiting time, reflecting broader regional and global challenges. Studies, such as that by Seitio-Kgokgwe et al. (2014), have highlighted critical areas of concern affecting the performance and efficiency of Botswana's healthcare system. These include hospital organisation and governance, resource inadequacies, human resource shortages, congestion, disease prevalence, flawed referral systems, and deficits in diagnostic and case-management capabilities.

The management of waiting time in the emergency department of PMH in Gaborone is a significant concern that affects both patient outcomes and the well-being of healthcare professionals. A study by Siamisang et al. (2022), conducted at PMH ED, revealed the magnitude of this problem, with results showing maximum medical officer and final disposition waiting times of 19.2 hours and 23.7 hours, respectively. The same study found that the median ED length of stay (LOS) was 8.8 hours, with a maximum of 37.2 hours. Considering that most patients received in the ED of PMH are referred from lower-level hospitals outside Gaborone and are escorted by a nurse, nurse escorts experience these long patient waiting times alongside the patients. The direct effects of these long waiting times on the mental health of escort nurses are alarming. This leads to overwhelming stress, burnout, low job satisfaction, disrupted workflows, and, ultimately, decreased quality of care (Horwitz et al., 2019). Additionally, these long waiting times disrupt the team dynamics of lower-level hospitals, affecting their daily schedules. This, in turn, affects the overall patient outcomes.

Moreover, PMH ED has consistently received concerns and dissatisfaction from internal and external customers regarding these prolonged waiting times.

These increasing customer complaints can undermine the community's trust and confidence in the healthcare system. As a result of these constant complaints, the Government of Botswana, through the Ministry of Health (MOH) and the PMH management, took initiatives to improve service delivery and efficiency. According to Setio-Kgokwe, Mafa and Selotlegeng (2023), in 2004, the MOH introduced a computerised patient management system referred to as the Integrated Patient Management System (IPMS) and rolled it out to healthcare facilities to streamline processes and improve communication between healthcare personnel, hence improving efficiency. In addition, to reduce waiting time, PMH adapted the South African Triage Scale (SATS) in 2012 to efficiently sort and prioritise patients (Siamisang et al, 2022). The MOH continued to strive for quality improvement and patient safety by introducing the Quality Improvement Framework in 2015, which emphasised, among others, quality monitoring through waiting time reporting in healthcare facilities (MOH, Botswana, 2014; 2015).

Despite the efforts to reduce waiting times and provide timely healthcare to patients, the PMH ED continues to face the challenge of long waiting times and prolonged lengths of stay, resulting in ED overcrowding (Siamisang et al., 2020). Ultimately, this affects escort nurses who must wait with the patient. This is further illustrated in Table 1 below.

Table 1: Average waiting times at Princess Marina Hospital ED over 5 months

MONTH/YEAR	AVERAGE WAITING TIME
October 2023	13 hrs 5 min
November 2023	5 hrs 23min
December 2023	9 hrs 15min
January 2024	4 hrs 48 min
February 2024	5 hrs 36 min

Table 1: Illustrates the average patient waiting times at PMH ED over five months, as adopted from the monthly unit reports. During these five months, the average waiting times exceeded the recommended four hours.

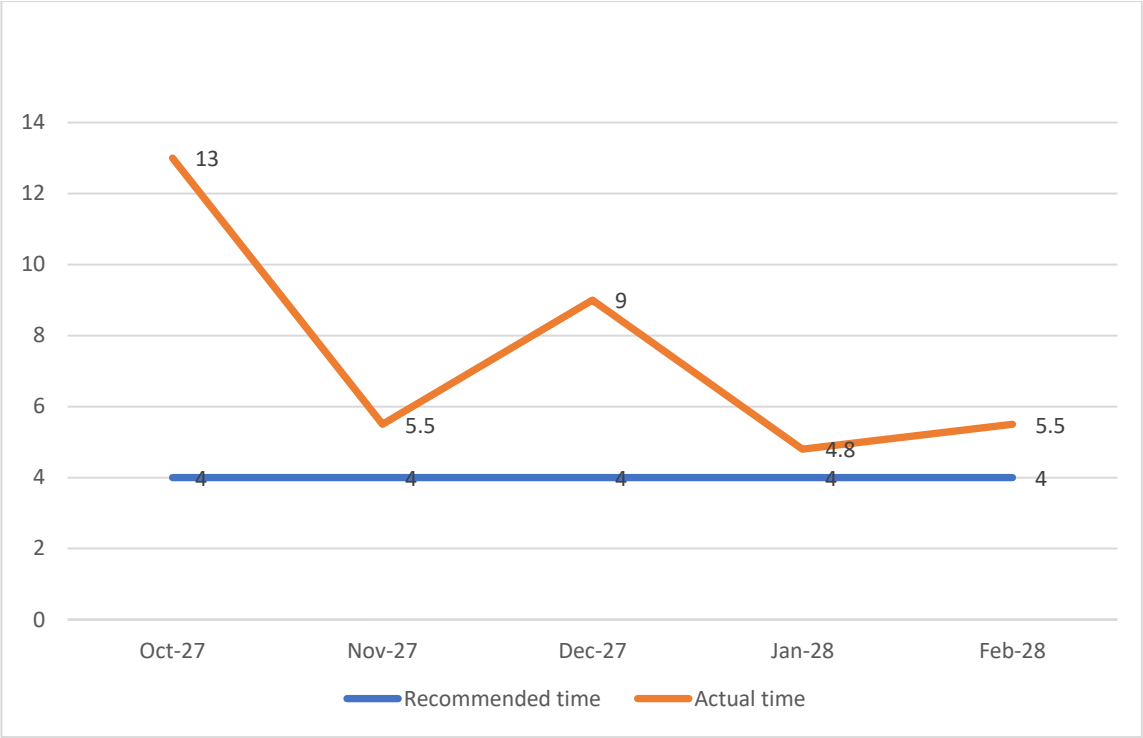

Figure 1: Comparison of recommended waiting time and actual waiting time

According to Figure 1, although the average waiting times at the PMH ED have declined, they remain above the recommended time.

Escort nurses play a crucial role in managing patient flow and reducing waiting times in the emergency department; however, limited research exists on their experiences in this context. Understanding their perspectives is important in identifying the factors contributing to delays, developing strategies to reduce waiting times, enhancing patient flow management, and improving the working conditions for essential healthcare providers.

1.4 Purpose of the study

This study aimed to explore the experiences of escort nurses on waiting time and associated challenges in the emergency department at Princess Marina Hospital in Gaborone, Botswana.

1.5 Justification

Long waiting times have been reported at PMH ED, with maximum waiting times of 19.2 and 23.7 hours, respectively, and a median ED LOS of 8.8 hours, with a maximum of 37.2 hours (Siamisang et al., 2022). Even though long waiting times have been reported, limited studies have explored this phenomenon from the perspective of escort nurses. Studies conducted by Siamisang et al. (2020) and Siamisang et al. (2022) focused solely on the actual waiting times, length of stay, and determinants of prolonged length of stay at the PMH emergency department. Despite the acknowledged global challenge in extended waiting times in the EDs, escort nurses' specific roles, experiences, and perceptions have been overlooked. The current study, therefore, highlights the dynamics of waiting times from the perspective of escort nurses by identifying critical bottlenecks and inefficiencies that contribute to delays in patient care. This information provided the basis for understanding ED operations within PMH and similar healthcare settings, resulting in streamlined processes, reduced waiting times, improved patient outcomes, enhanced quality of care, and restoring public confidence in emergency medical care. Moreover, this study aimed to address a notable gap in the existing body of research by focusing on the experiences of escort nurses, particularly in the context of Botswana's ED waiting times.

1.6 Research question

What are the experiences of escort nurses on waiting times and associated challenges in the emergency department of Princess Marina Hospital in Gaborone, Botswana?

1.7 Scope of the study

This study focused on the ED of PMH in Gaborone, Botswana, and aimed to explore ED waiting times, associated challenges in the ED and the overall referral system. Specifically, it focused on escort nurses undertaking inter-facility patient transfers into the ED to gain detailed insights into their experiences with waiting time and challenges encountered.

1.8 Operational definition of terms

Associated challenges: These are problems or difficulties linked or related to a particular situation. In this study, these are issues that affect waiting time in the emergency department.

Emergency Department: A specialised facility or area within a hospital where patients with urgent, emergent, or life-threatening conditions receive immediate medical attention and care. The ED operates 24 hours a day and is the primary entry point for patients requiring acute care.

Escort Nurses: These are healthcare professionals, typically registered nurses, tasked with accompanying, monitoring, and providing care to patients transferred between healthcare facilities. In the context of this study, escort nurses specifically refer to those undertaking inter-facility patient transfers from hospitals outside Gaborone into the PMH ED.

Referral Hospital: A healthcare facility equipped with specialised medical services where patients are transferred (referred) from primary or secondary healthcare settings for advanced diagnostic, therapeutic, or surgical care. In Botswana, a referral hospital represents the apex of the healthcare system, often hosting a busy emergency department due to the centralisation of specialised care services.

Waiting Time: The duration between a patient's arrival in the ED and a healthcare professional initiating medical evaluation or treatment. This study focuses on the waiting times experienced by patients in the ED and the implications of these waiting periods from the perspective of escorting nurses. Therefore, in the context of this study, waiting time refers to the duration from registration to triage (Triage waiting time), from triage to the first review by a medical officer (Doctors' waiting time), and from review by a medical officer until final disposition (Disposal waiting time).

1.9 Conclusion

Emergency Departments are vital in providing timely care to patients. These departments are crucial in referral hospitals as they handle severe cases transferred from lower-level facilities. However, these departments face persistent and prolonged waiting times, which affect patient satisfaction, staff welfare, and healthcare delivery. Therefore,

efficient ED operations in these hospitals are crucial. Escort nurses play a vital role in inter-facility patient transfer by accompanying, supporting, and caring for patients throughout their ED visits. Therefore, they are well-positioned to provide insights into the effect of waiting times and associated challenges in the ED.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview and analysis of the literature on emergency department operations and their role in healthcare, the role of escort nurses in the emergency department, factors affecting waiting times in the emergency department, strategies to mitigate waiting times in the emergency department, and the contextualisation of waiting times in the Botswana emergency department. Additionally, it reviews qualitative and quantitative studies related to the experiences of escort nurses in the emergency department from local, regional, and global perspectives. The databases used for the search were PubMed, Research Gate, Google Scholar, and Wiley Online Library. The search words employed were inter-facility patient transfer, emergency department operations, waiting times in the emergency department and its associated factors, length of stay, and healthcare workers' experience in the emergency department. However, the search did not yield much information on the experiences of escort nurses in waiting times in an emergency department; therefore, related quantitative studies on waiting times were also used.

2.2 The Role of Emergency Departments in Healthcare

An ED is a critical pillar within the healthcare system, acting as the primary interface between the public and healthcare services during emergencies. EDs are often the first point of contact for individuals with acute medical conditions, injuries, or trauma (Akkan et al., 2020). They provide immediate attention and intervention that can be pivotal in preserving life, preventing further health deterioration, and ensuring optimal recovery. The capability of EDs to offer round-the-clock care makes them an essential component of any healthcare system, allowing them to manage a broad spectrum of emergencies (Dawoud et al., 2016).

In referral hospitals, EDs are vital in triaging and managing patients before directing them to specialised care units within the same facility. Given their placement within tertiary care hospitals, EDs act as a critical gateway for patients who require advanced diagnostics, specialised treatments, and surgeries unavailable at primary or secondary care levels (Adeniji and Mash, 2016). This function is particularly significant for

patients transferred from other facilities or regions with limited healthcare resources, as it ensures access to comprehensive and specialised medical interventions. Ultimately, EDs serve as crucial nodes within the healthcare network, coordinating care across various levels and specialties. They ensure that patients receive the necessary follow-up care, whether it involves admission to the hospital for further treatment or referral to outpatient services for ongoing management (Schuetz et al., 2013). This coordination is crucial for ensuring the continuity of care, particularly for patients with complex or chronic conditions that require multidisciplinary management.

2.3 Escort Nurses in the ED Environment: Roles and Responsibilities

The role of escort nurses in the ED setting is a critical, yet often underexplored, aspect of healthcare delivery. Escort nurses serve as vital links in the chain of patient care, ensuring the safe and efficient transfer of patients between departments or healthcare facilities and contributing significantly to the overall functioning of the ED and patient outcomes (Mndebele et al., 2024).

One of the primary responsibilities of the escort nurses is managing the transfer process for patients. This includes patients who need to be moved from the ED to other departments within the hospital for further treatment or diagnostic procedures, as well as those being transferred to different healthcare facilities (Mndebele et al., 2024). Escort nurses ensure that such transfers are conducted safely, respecting the patient's medical needs and maintaining continuity of care. A study focusing on inter-facility transfers highlighted the critical role of escort nurses in communicating vital patient information between care teams, facilitating seamless care transitions, and reducing the potential for medical errors.

Nurses are responsible for monitoring the patient's health status during transfer. They must be prepared to identify and respond to any emerging medical emergency, making real-time decisions to stabilise patients when necessary (Blay et al., 2014). A study by Vieira et al. (2011) on intrahospital transfers underlined the importance of this role, noting that the capability of escort nurses to provide continuous care and intervention during transport is crucial for preventing patient deterioration. Moreover, escort nurses also function as patient advocates, ensuring patient needs and preferences are communicated and respected throughout the transfer process (Mndebele et al., 2024).

Escort nurses liaise among patients, families, and healthcare teams, playing a key role in the exchange of information. Practical communication skills are essential, as highlighted in the studies examining interdepartmental transitions, where escort nurses mitigate the risk of miscommunication and contribute to a more patient-centred care approach.

2.4 Factors Influencing ED Waiting Times: Systemic and Operational Factors

One of the most cited factors affecting ED waiting time is the number of patients seeking care. A high patient volume can overwhelm ED capacity, thereby increasing waiting times. Studies have shown a correlation between the peak times of patient arrivals and lengthier wait periods, primarily due to the inability of existing infrastructure and staff to handle the surge in demand effectively (Afaya et al., 2017; Morley et al., 2018). Seasonal disease outbreaks and public health emergencies can exacerbate this issue, further straining ED resources.

Furthermore, the triage process is vital for determining the priority of patient care based on the severity of their conditions. However, inefficiencies in triage procedures can lead to the misallocation of resources and longer wait times for critically ill patients. Afaya et al. (2017) emphasised the importance of accurate and efficient triage systems in managing patient flow and optimising resource allocation within the ED. Inadequate triage protocols can extend waiting times and increase the risk of adverse health outcomes in patients who require immediate attention.

The availability and efficiency of ancillary services, such as laboratory tests, imaging, and consultations, can also significantly impact ED waiting times. According to Lauks et al. (2016), delays in obtaining diagnostic results or specialist consultations can lead to extended wait times for patients, affecting not only those requiring these services but also contributing to overall congestion within the ED. Le et al. (2022) have also affirmed that streamlined coordination between the ED and ancillary services is essential to minimise bottlenecks and improve patient flow. A study conducted by Mashao et al. (2022) in South Africa found that a prolonged stay of 3 days was associated with bed availability, which was a contributing factor.

2.5 Strategies to Mitigate ED Waiting Times

To effectively mitigate ED waiting times, it is essential to implement strategies that enhance patient care and improve overall healthcare efficiency. Among these strategies, the implementation of efficient triage systems is the cornerstone. By promptly identifying the severity of patient conditions and prioritising care accordingly, advanced triage protocols, such as the Manchester Triage System or the Emergency Severity Index, have demonstrated their effectiveness in improving patient flow and reducing waiting times (Morley et al., 2018). Furthermore, escort nurses trained in these advanced triage methods play a vital role. They swiftly assess patients upon arrival, ensuring that those in critical condition receive immediate attention.

Moreover, optimising patient flow from entry to discharge or transfer minimises ED waiting time. Deploying dedicated patient flow coordinators or escort nurse roles significantly enhances this process (Akkan et al., 2020). These professionals oversee patient movement within the ED, coordinate with different departments for timely diagnosis or consultation, and efficiently manage discharge or transfer procedures. Evidence suggests that these dedicated roles in patient flow management substantially reduce bottlenecks and improve ED throughput.

In addition, ongoing training and professional development for all ED staff, particularly those directly involved in patient care coordination, such as escort nurses, are of utmost importance (Nyce et al., 2021). Providing education on the principles of emergency care efficiency, patient flow management, and stress-coping mechanisms empowers staff members (Dawoud et al., 2016)This, in turn, enables them to contribute more effectively to efforts to reduce waiting times. Through these collaborative and strategic approaches, it is possible to enhance the efficiency and quality of emergency care services.

2.6 Contextualising ED Waiting Times in Botswana

Botswana's healthcare system is structured to provide a comprehensive range of services, from primary healthcare at the community level to specialised care at tertiary institutions. The system is mainly public and funded by the government, ensuring that healthcare services are accessible to most of the population at minimal or no cost (Ncube et al., 2022). This aligns with the country's commitment to universal health coverage.

Primary health care services are delivered through clinics and health posts located across the country, particularly in rural areas, serving as the initial point of contact for most health concerns. Secondary care is provided by district hospitals that offer specialised services. Referral hospitals offer tertiary care, the pinnacle of the healthcare structure. These institutions are equipped with advanced medical facilities and are staffed by specialists to handle complex health issues, including emergencies (Siamisang et al., 2020). Emergency care services in Botswana are integrated into secondary and tertiary hospitals. EDs in these hospitals play a critical role in providing immediate care to patients with acute and life-threatening conditions. However, like many other countries, Botswana faces challenges in managing ED services efficiently and is significantly affected by waiting times. A study by Siamisang et al., (2022) conducted at PMH ED revealed maximum waiting times for medical officers and final dispositions of 19.2 and 23.7 hours, respectively. The same study found that the median ED LOS was 8.8 hours, with a maximum of 37.2 hours.

Although Botswana has made significant strides in healthcare, hospital resource limitations, including those at referral hospitals, have impacted emergency care services. A critical challenge is the shortage of healthcare professionals, particularly in emergency and critical care settings (Seitio-Kgokgwe et al., 2014). The limited number of physicians, nurses, and support staff contributes to long waiting times in emergency departments. This situation is worsened by the uneven distribution of healthcare workers, with a concentration in urban areas, leaving rural areas particularly underserved (Siamisang et al., 2020). As a result of prolonged waiting times, escort nurses experience overwhelming stress, which can lead to burnout, low job satisfaction, and decreased quality of care provided. Despite the acknowledged challenges in Botswana's ED waiting times, a significant gap in research remains that specifically addresses the role and experiences of escort nurses in emergency care settings. Escort nurses play a vital role in managing patient flow and ensuring the continuity and coordination of care, particularly for patients needing transfer to specialised units or facilities. A deeper exploration of how these nurses mitigate waiting times, associated challenges, and potential areas for efficiency improvements could contribute valuable insights into optimising ED operations and enhancing patient care in Botswana.

2.7 Conclusion

Key studies, such as Akkan et al. (2020), Mashao et al. (2021), Siamisang et al. (2020), and Siamisang et al. (2022), provide valuable insights into the operational challenges concerning waiting times and strategies to mitigate them in emergency departments. However, these studies overlook the subjective experiences of escort nurses. Despite the valuable contributions of existing studies, a notable gap remains in understanding the lived experiences of escort nurses related explicitly to waiting times and associated challenges in the ED. Additionally, the current literature focuses on quantitative data, with limited qualitative insights into the personal and emotional effects on healthcare staff. The study aimed to fill this gap by exploring the lived experiences of escort nurses at Princess Marina Hospital's Emergency Department.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

The methodology section of this study outlines the research design, participant selection, data collection methods, and analysis procedures employed to investigate the experiences of escorting nurses regarding waiting times and associated challenges in the ED of PMH, Gaborone, Botswana. This section elucidates the steps to ensure the research question is systematically and ethically answered.

3.2 Research design

This study employed a qualitative research approach, specifically a descriptive phenomenological design, to comprehensively explore the experiences of escort nurses regarding ED waiting times and associated challenges. Qualitative research is particularly suitable when the aim is to investigate and comprehend complex phenomena from the perspectives of those who have experienced them (Creswell and Clark, 2017; Creswell and Poth, 2018).

3.3 Study setting

The study was conducted in the ED of PMH, a 567-bed referral hospital in Gaborone, Botswana. The PMH ED comprises one designated triage room with five corridor cubicles and 13 beds or bays, four designated for resuscitation and one for paediatrics. The site was selected for its critical role in Botswana's healthcare system. It is at the apex of the public sector referral pyramid, serving as a primary access point to specialised emergency care (Lobatse, Cox, and Motsumi, 2024). The choice of Gaborone was strategic, given its status as the capital city, which hosts the country's most advanced healthcare facility.

3.4 Study population

The study population consisted of escort nurses (licensed registered nurses) who undertook inter-facility patient transfers from lower-level hospitals outside Gaborone to the PMH ED in Gaborone, Botswana. These professionals are directly involved in patient care during patient transfer and the critical phases of emergency services in the ED, making their experiences particularly relevant to the research question.

3.5 Sample size

The sample was selected for data collection from the study population through data saturation. In this study, data saturation was reached on the 11th respondent, close to the sample size of 12-15 suggested by Hennink and Kaiser (2022).

3.6 Sampling techniques

Purposive sampling was employed to select individuals with rich experiences related to the study's research question. During purposive sampling, escort nurses with at least 6 months of work experience, undertaking inter-facility patient transfers, were selected. These nurses had developed sufficient clinical skills and confidence and had a breadth and broader exposure to experiences (Thys et al., 2019). Purposive sampling was chosen for its effectiveness in identifying participants who can provide in-depth and relevant insights for qualitative exploration (Creswell, 2013).

3.7 Inclusion and Exclusion Criteria

Specific inclusion and exclusion criteria were established to ensure that the study sample had the characteristics the Researcher was interested in, that the data collected was relevant, and that it answered the study's research question. These criteria guided the selection process while recruiting participants for the study.

3.7.1 Inclusion Criteria

1. **Professional Role:** Licensed nurses who served in lower-level hospitals outside Gaborone and undertook inter-facility patient transfer roles to the ED of PMH in Gaborone, Botswana.
2. **Availability and Consent:** Participants provided informed consent to participate in the study and were available for interviews during the study period.
3. **Communication:** Participants demonstrated sufficient proficiency in English, the language used within the hospital setting, and the data collection instruments, enabling them to understand and respond to interview questions.

3.7.2 Exclusion Criteria

1. **Work experience:** Registered nurses with less than six months of work

experience were excluded since they may not have developed sufficient clinical skills and confidence (Thys et al., 2019). Therefore, they may not have a breadth of experience and broader exposure. Their limited exposure to various clinical situations could lead to inconsistent and unreliable data, affecting the study's trustworthiness.

3.8 Data collection tool and techniques

3.8.1 Data collection tool

Data collection utilised an interview guide consisting of one core question: What are your experiences as an escort nurse on waiting times and associated challenges in the emergency department of Princess Marina Hospital? The researcher formulated this, guided by the research question and the study aim. Probe questions arose as the respondents described their experiences to gather more details and clarification. Some of the probe questions that arose were:

a. Were you informed about expected waiting times upon arrival?
b. What do you think contributed to the waiting times you experienced?
c. How did the waiting time affect your physical or emotional state during the visit?
d. What changes could reduce waiting times at the emergency department?

Braun and Clarke (2019) articulate that an interview guide is important in effective data collection as it provides structure and consistency while allowing for flexibility. This allows for easy follow-up and enables researchers to collect rich, detailed data from participants that provides a deeper understanding of the phenomenon and allows them to attach meaning to their experiences (Roulston and Choi, 2018; Rutledge and Hogg, 2020).

3.8.2 Data collection techniques

In-depth interviews were used when collecting data. They are especially beneficial in phenomenological research, as they emphasise the importance of establishing rapport between the researcher and participants, facilitating a more open and honest exchange of information (Brinkmann and Kvale, 2018). This method's adaptability allows the researcher to accurately capture the subtleties, intricacies, and contextual elements that

impact participants' experiences and comprehension of the investigated phenomenon (Hennink et al., 2020). The flexible nature of in-depth interviews will enable researchers to probe further, ask follow-up questions, and explore emergent themes or unanticipated lines of inquiry (Patton, 2015).

In-depth interviews were conducted face-to-face for three months (November 2024 to January 2025). Each interview lasted approximately 45 to 60 minutes. This duration is considered appropriate for in-depth interviews, as it provides ample time for participants to share their experiences, perspectives, and insights while ensuring that the interview remains focused and manageable (Patton, 2015). Face-to-face interviews were conducted in a convenient and comfortable setting for the participants. In the emergency department, these sessions were conducted in the head of department's office, which was not in use, providing the participants with privacy and quiet. Conducting interviews in person allowed for the development of rapport and trust between the researcher and the participant, facilitating open and candid dialogue (Brinkmann and Kvale, 2018). Additionally, face-to-face interactions allowed the researcher to observe and interpret nonverbal cues, providing valuable contextual information and enhancing the understanding of the participants' experiences.

The secure online platform, a video conferencing tool, was also utilised for participants who could not meet in person due to geographical constraints or personal preferences. These platforms ensured that the interviews could be conducted privately and confidentially while allowing for real-time communication and the ability to observe non-verbal cues (Salmons, 2015). These video conference calls were recorded through screen recording. Using online platforms expanded the study's reach and enabled the inclusion of participants from diverse locations, enriching the diversity of experiences captured in the data. Before each interview, participants were provided with an information sheet and consent form, ensuring they were fully informed about the study's purpose, procedures, and ethical considerations. With participants' consent, the interviews were audio-recorded to ensure accurate transcription and facilitate subsequent data analysis (Creswell & Poth, 2018). Collected data was stored in a computer and a hard drive with password protection. To prevent data loss, regular backups of information were carried out.

The researcher adhered to quality criteria for research, upholding the principles of trustworthiness. The best-known criteria include credibility, transferability, dependability, and confirmability, as defined by Lincoln and Guba (Korstejens and Moser, 2018). Credibility was enhanced through member-checking, which involved inviting participants to evaluate and provide feedback on the interpretations derived from the data, and peer debriefing, which involved consulting colleagues or experts in the field to verify that the data substantiated the interpretations and was consistent with the research question.

The researcher ensured transferability through rich and thick descriptions of the behaviour and experiences, as well as the research context and participants at PMH ED, to allow readers to assess the applicability of the findings to other settings and populations. The researcher maintained a reflective journal to document their thoughts, observations, and potential biases throughout the data collection process, enhancing dependability and confirmability. This practice provided an audit trail, enabling the researcher to critically examine their role and influence on the research process (Creswell & Poth, 2018). As articulated by Korstejens and Moser (2018), transparently describing the step-by-step research process and employing clear and systematic data analysis techniques enhances dependability and confirmability.

By adopting a rigorous and well-planned data collection procedure that incorporated both face-to-face and online interviews, and ensuring that ethical considerations were addressed, the study gathered rich, in-depth, and contextually grounded data, providing valuable insights into the phenomenon under investigation.

3.9 Ethical and cultural considerations

This study strictly adhered to ethical research standards, including voluntary participation, obtaining informed consent from all participants, ensuring confidentiality and anonymity, and minimising any potential risks or discomfort associated with participation. The participants were informed of their right to withdraw from the study without penalty or consequence. Considering the nature of the study, there was potential for harm to the participants. Discussing waiting times and related work experiences would evoke emotional distress or stress, especially if participants have had negative or challenging experiences. To minimise this discomfort, participants were provided access

to psychosocial support resources if needed. There was also the potential for professional repercussions if participants shared critical or negative experiences. Therefore, the researcher upheld confidentiality and anonymity by assigning participants pseudonyms (respondents 1 to 11) and coding in data collection and reporting to ensure their participation and responses would not negatively impact their employment status or professional relationships.

The research proposal, including the data collection tools and consent forms, were submitted to the University of Zambia Research Ethics Committee (UNZABREC), the Botswana Ministry of Health— Health Research and Development Committee (HRDC), and the Princess Marina Hospital Research and Ethics Committee for ethical approval before any data collection begins. The approval numbers were REF. No. 5629-2024, REF. No. HPRD: 6/14/1, and REF: PMH 2/11AII (534), respectively. The researcher registered with the National Health Research Authority (NHRA) with registration number NHRAR-R-1491/13/04/2024. Permission to conduct the study was sought from Princess Marina Hospital management. A meeting was held with the hospital's matron, deputy matron, and heads of the Accident and Emergency department, including the medical officer and the nurse-in-charge.

3.10 Conclusion

This study employed a qualitative phenomenological study design. Its primary focus was on the emergency department of Princess Marina Hospital in Gaborone, Botswana, aiming to thoroughly understand the emergency department's waiting times, systemic and operational challenges and the overall referral system. It targeted explicitly escort nurses with at least six months of work experience, undertaking inter-facility patient transfer into the ED to gain insight into their experiences and views on waiting times and associated challenges. Data were collected through in-depth interviews to gather detailed information, which was then analysed thematically and coded using ATLAS.ti software. The study strictly adhered to ethical and cultural considerations to minimise harm and discomfort to participants.

CHAPTER FOUR
PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents the descriptive phenomenological study design findings that focused on escort nurses' experiences regarding waiting time and associated challenges in the emergency department of Princess Marina Hospital in Gaborone, Botswana. Data was collected through in-depth interviews and thematically analysed using an inductive approach. Thematic analysis is a widely accepted and reliable method for identifying patterns within qualitative data (Braun & Clarke, 2006; Creswell, 2013). It is particularly suitable for phenomenological research as it systematically explores participants' lived experiences and the meanings they attribute to the phenomenon under investigation (Creswell and Poth, 2018). The ATLAS.ti software facilitated data analysis as a valuable tool for organising, coding, and managing qualitative data. ATLAS.ti is a CAQDAS (computer-assisted qualitative data analysis software) that provides a comprehensive platform for researchers to effectively manage and analyse large volumes of qualitative data, such as interview transcripts, field notes, and documents (Friese, 2019). The analysis of data adhered to the six-phase technique described by Braun and Clarke (2006):

1. Familiarisation: The researcher familiarised themselves with the data by carefully reviewing the interview transcripts and repeatedly listening to audio and screen recordings to comprehensively understand the content and its context.
2. Generating preliminary codes: The researcher systematically coded the data by identifying and labelling pertinent segments of text that encapsulate meaningful units of information related to the research inquiry.
3. Searching for themes: The coded data was assessed to identify potential themes that capture recurring patterns of meaning throughout the dataset.
4. Reviewing themes: The discovered themes were scrutinised and refined to ensure they accurately represent the data and address the research question.
5. Defining and naming themes: The researcher clearly defined and named the final themes, capturing the essence of each theme and its connection to the overall research question.

6. Creating the report: The findings were presented comprehensively and coherently, utilising vivid examples and quotes from the data to illustrate and support the identified themes.

During the data analysis process, the researcher employed strategies to enhance the credibility and dependability of the findings. These comprised member checking, where participants were invited to evaluate and provide feedback on the interpretations deduced from their data, and peer debriefing, where colleagues or experts in the field were consulted to verify that the data substantiated the interpretations and were consistent with the research question (Lincoln and Guba, 1985). The ATLAS.ti software facilitated the coding process, allowing the researcher to effectively organise and manage the substantial volume of qualitative data. The software's robust coding and querying capabilities enabled the researcher to systematically identify patterns, explore connections between codes and themes, and maintain a thorough audit trail of the analytical process (Friese, 2019). Using thematic analysis as the primary data analysis method, supported by the ATLAS.ti software, the researcher provided a rigorous and transparent analysis of the qualitative data, ultimately yielding rich insights into the lived experiences and viewpoints of participants related to the waiting time and challenges encountered in the PMH ED.

The data revealed three main themes: Theme One, Resource limitations in PMH ED; Theme Two, Operational challenges in PMH ED; and Theme Three, Effects of long waiting times. Findings were initially presented in a table format to summarise the main themes, sub-themes, and codes. Furthermore, these were presented in a structured format, in line with the themes generated from the data analysis. According to Creswell and Poth (2018), a detailed narrative description of the emerged themes should be provided, explaining how the themes relate to participants' experiences and the phenomenon in question. To illustrate each theme further, direct quotes from participants were incorporated, ensuring that the quotes were rich, vivid, and representative of the themes.

4.2 Participants' socio-demographic characteristics

A total of eleven participants took part in the study, and participants were referred to as respondents' number one to eleven according to the transcript serial number. Their socio-demographic features were five males and six females, aged 29 to 44, with most

aged 30 to 39. The work experience ranged from 7 to 21 years, most of which were 11 to 17 years of service. Below is the table illustrating the demographics of the respondents;

Table 2. Socio-demographic characteristics of respondents

Participant	Age	Gender	Work experience
Respondent 1	34 years	Female	11 years
Respondent 2	38 years	Male	15 years
Respondent 3	37 years	Male	12 years
Respondent 4	40 years	Male	17 years
Respondent 5	38 years	Male	16 years
Respondent 6	29 years	Female	7 years
Respondent 7	39 years	Female	16 years
Respondent 8	32 years	Female	7 years
Respondent 9	35 years	Male	13 years
Respondent 10	30 years	Female	8 years
Respondent 11	44 years	Female	21 years

4.3 Presentation of the identified Themes and Subthemes/Categories

After analysis of the dataset, three main themes and 11 sub-themes emerged for this study. Table 3 below presents a summary of the identified themes, subthemes, and associated codes and shows a structured overview of the rich descriptive qualitative data that emerged from the study:

Table 3. Summary of Themes

Main Themes	Sub-themes	Codes
Resource Limitations in PMH ED	Inadequate physical space	a. *Limited triage space* b. *Triage is slow due to limited space* c. *The space at A&E is too tiny* d. *Limited infrastructure*
	Equipment shortages	a. *Shortage of beds* *b. Even finding a bed for a patient is a hassle* *c. Shortage of equipment like BP machines, suction machines, and pulse oximeters*
	Insufficient staffing levels	*a. Shortage of nurses, doctors, and specialists.* *b. High clinician-patient ratio* *c. Shortage of staff, especially specialists*
	Lack of essential facilities	*a. Lack of emergency operating theatre at A&E* *b. Radiology department is closed at night* *c. Breakdown of X-ray/ CT scan machines*
Operational Challenges in PMH ED	High patient volume	*a. The ED is almost busy throughout* *b. Influx of patients from across the country* *c. All districts refer to Marina, so there are many patients*
	Inefficient Referral and Triage process	*a. ED is a walk-in dept for patients and a referral emergency dept serving the country* *b. Triage is not that efficient* *c. PMH ED using the adapted SATS* *d. The triage is associated with prolonged*

		wait times *e. No review of referral protocols* *f. Escort nurses wait until they know the patient's final destination* *g. No comfort for the escort nurse as they wait for their patient to be assisted*
	Prolonged Waiting times	*a. There are prolonged waiting times, even up to 3 days* *b. The waiting times are worse at night, weekends and month-ends* *c. The prolonged waiting times cause ED congestion* d. *Specialists take long to review patients*
	Delays in Support Services	a. *Waiting for radiology and laboratory reports* b. *Distance from other support services (diagnostic services)*
	ED Communication Inadequacy	a. *Most often, escort nurses and patients are not updated* b. *Lack of communication makes the situation very bad.* c. *Lack of stack protocols and markings/labels* d. *I was not informed at all about the waiting time*
	Effects on Escort Nurses	*a. Stress and anxiety* *b. Just waiting for a long time brings fatigue* c. *Physical exhaustion* *d. The situation is daunting and calls for*

Effects of Long Waiting Time		*endurance* *e. You get emotionally drained* *f. You experience burnout* *g. Uncertainty and negative perception of the healthcare system* *h. Leads to reduced job satisfaction*
	Effects on the referring facility	*a. Creates staff shortage* *b. Increased workload* *c. Triggers ambulance/ transport crisis*

Table 3. Identified Themes and Subthemes/Categories

4.4 Theme 1: Resource Limitations in PMH ED

This theme highlights the resource constraints associated with prolonged waiting times experienced by escort nurses at the PMH ED. Respondents highlighted inadequate infrastructure, unavailability of functional medical equipment, shortage of staff, and lack of essential facilities in the emergency department as factors that hindered the timely provision of emergency care. They attested that the department operates with minimal personnel, resulting in delayed service provision and extended waiting times. The unavailability of medical equipment further limits the efficient and timely provision of services.

4.4.1 Inadequate physical space

The respondents revealed that, despite PMH ED being at the apex of the referral pyramid, it remains inadequate to accommodate the influx of patients nationwide. They highlighted how tiny and congested the ED is and that, as a result, it takes time for a patient to be attended to. The escort nurses explained that the ED has designated bays for resuscitation and emergent cases and a bay for paediatric patients only. They reported that the shortage of bed spaces hinders other patients from undergoing procedures, hence delaying treatment. This is notable from the following respondents' excerpts:

*"…The ED is too small to accommodate the whole country." (*All respondents).

"…Sometimes you have to wait to transfer your patient from the ambulance stretcher onto the hospital bed due to congestion and limited bed space. ...You can even see people who are not supposed to be at the 'emergency' were queuing and causing this congestion..." (R1,3,6).

"...Eeeeh, ...I had a bad experience during my escorts to Princess Marina Hospital due to the chaos and disorganisation in the emergency department. The area was so congested, with patients lying in the corridors unattended and others still on their ambulance stretchers...and I could only see 2 nurses on duty..." R5.

4.4.2. Equipment shortages

The shortage of essential medical equipment was among the challenges mentioned by the escort nurses, which caused extended waiting times. They alluded to how a large hospital's emergency department, such as Princess Marina Hospital's A&E, can function with only one blood pressure machine. The respondents reported that they sometimes spent more time waiting for their patients to be seen due to the lack of beds to accommodate them. Some complained of a lack of portable diagnostic equipment, as moving between the emergency and X-ray departments consumed significant time. Below are some of the respondents' snippets to illustrate further:

"…*There is a shortage of resources; sometimes, only one functional blood pressure machine is used at triage and inside the bays. Even finding a bed for a patient is a hassle."* (All respondents)

"…Lack of portable diagnostic equipment such as X-rays and ultrasound machines increases the time we spend in the emergency department as more time is consumed by the movement between the radiology department and A&E." (R2,5,8,9,10)

4.4.3 Insufficient staffing levels

Concerns were raised about the workforce at PMH ED. The respondents acknowledged and highlighted challenges of the department's staffing levels, considering the number of patients it receives daily. They further indicated that only two nurses and one doctor are typically on duty in triage per shift, despite the overwhelming number of daily cases. These extracts signify the above.

"There is a shortage of nurses, doctors, and specialists… and the clinician-patient ratio is high." (All respondents)

"…Yes, there is also a shortage of doctors and nurses here, you can only see 1 doctor or 2 nurses moving about in the entire ED… and it takes longer for patients admitted to be transferred to the wards…" (All respondents)

Respondents commented on the shortage of specialised nurses and doctors in emergency care, which delays patient diagnoses and treatment. They echoed that the staff at PMH are overworked and fatigued. Notably, respondents 3, 5 and 7 stated that:

"…Another issue is a shortage of specialised nurses and doctors, hence tossing patients around without making final diagnoses or decisions, and the staff in PMH are overworked and fatigued. Just look at the patient inflow."

4.4.4. Lack of essential facilities

The lack of dedicated treatment spaces, the closure of the radiology department at night, the lack of an emergency operating theatre, and the breakdown of X-ray and CT scan machines contributed to the prolonged waiting times experienced by patients and escort nurses. The escort nurses noted that these issues further exacerbated the problem of extended hospital stays. The respondents highlighted the challenges of distance, moving the patient from one location to another, to facilitate the ordered medical investigations. Respondents who had their patients ordered to do X-rays or ultrasounds during the night shift had to wait until the following morning, as the radiology department is closed during the night shift, probably due to staffing constraints. They lamented that they had experienced frequent breakdowns of X-ray and CT scan machines on several occasions when they were at the PMH ED. The following are some of the respondents' excerpts:

"…As I said, there are many causes for this delay. I have noticed the lack of availability of specialist medical officers and nurses, the large number of patients waiting in that limited space, and sometimes the breakdown of equipment/machines. For instance, we must fill out the guarantee form to outsource investigations such as CT scans. …I also think the X-ray department and laboratory are far apart, and moving the patient there

*takes a bit of time. ...And it takes longer for patients who are already admitted to be transferred to the wards…" (*R2, 4, 7, 8).

*"…There is a lack of bay allocations per condition, so patients queue in one line. …The ED also lacks an emergency operating theatre..." (*R3, 5).

4.5. Theme 2: Operational Challenges in PMH ED

The study's findings revealed several operational challenges that contributed to the prolonged waiting times of escort nurses. These included the following: high patient volume, inefficient triage and referral processes, inadequate emergency department communication, prolonged waiting times, and the unavailability of other supporting services, such as functional diagnostic services. Similarly, waiting for investigation reports or results, such as radiology reports and laboratory results, was reported as a factor that adds to extended waiting times at the ED, as it causes doctors to delay in making a final decision concerning patients' care and treatment.

4.5.1. High patient volume

The findings of the study indicated that the PMH ED is consistently busy with incoming patients from lower-level facilities in Gaborone and across the country, as well as walk-in patients. Reports highlighted the congestion in the emergency department, which was also characterised as chaotic and disorganised, adversely affecting efficient patient flow. The respondents acknowledged that the influx of patients led to congestion in the emergency department (ED), causing delays in receiving care and potentially increasing adverse patient outcomes. The extracts from the respondents below provide a deeper insight:

"…There is an influx of patients from across the country as PMH is the biggest hospital that offers specialised care… the ED is almost busy throughout the shifts, but holidays & weekends are busier…" (R1, 7, 8).

"…The other thing is patient factors; people just go to A&E, and even though it is not an emergency…" (R1, 5, 10).

"… I had a bad experience during my escorts to *Marina due to the chaos and disorganisation…The area was so congested, with patients lying in the corridors unattended…"* R5.

4.5.2. Inefficient Referral and Triage Processes

The escort nurses attested that they have accompanied patients to the PMH ED for many years. During these transfers, they have been with the patient at the ED from start to finish until final disposition. This can also be noted in the narrative of one of the respondents:

"...The first time I escorted a patient to Marina was in 2013, and since then, I have always been accompanying patients….and we are required to spend the whole time with the patient and provide feedback on the patient back at our facility..." R3.

The study findings revealed that the respondents were dissatisfied with the current triage system, mainly due to delays in attending to patients as coded. The following respondents' extracts depict their discontent with the system:

"…*Triage system is very slow, probably due to limited space and at times inadequate staffing…" (*R2,4,5,9).

*"...My experience is that the triage process is mostly slow and inefficient...It contributes to the congestion in that small triage area and the corridors. The other thing is that only 1 or 2 nurses are usually allocated to triage patients…" (*R5,9,11).

Nevertheless, a few respondents were happy with the current triage system despite the timings in the colour code not being adhered to. This is highlighted in the following respondents' statements:

*"...I think their triage process is good because the information under triage is on the form they are using, and it is relevant to whatever condition you bring to be seen by the doctor. It prioritises patients accordingly, and emergency patients are seen first, as expected from an emergency department. ...It does not serve on a first-come, first-serve..." (*R4,9).

"...Normally, when we get to Marina, we register our patients at the reception bay on *an electronic system – the Botswana electronic health system (Integrated Patient Management System, IPMS). From there, you go to the triage nurses and briefly tell them the patient's history. ...Then, the nurses and doctors complete the individual pages of the triage sheet and colour-code the patient. ...Thereafter, you will be attended to according to the colour coding. This is good..." (*R2, 6, 8).

Additionally, under-triaging patients, patient factors (non-emergent cases that attend the ED instead of utilising local clinics), and the admission criteria of some instances where certain patients require specialist review before admission were reported. Study findings further indicated that most local clinics and health posts in Gaborone do not operate at night, contributing to the influx of patients at night. The quote below gives insight:

"...The other thing is patient factors; people just go to A&E, and even though it is not an emergency...and at night patients influx A&E since most local clinics are closed." (R1, 5, 10).

Escort nurses reported that referral protocols to the emergency department are either unavailable or that healthcare providers are unfamiliar with them, even when they are available. There are several inconsistencies regarding the procedures for patient transfer. The respondents have expressed the need to review the current referral process. This is elaborated in the following respondent excerpts:

"... If possible, allow escort nurses from lower-level facilities outside Gaborone just to hand over the patients and return to their duty stations as is the case for clinics around Gaborone..." (All respondents)

"...Changes in referral protocols, i.e. patients who are obvious admissions to be admitted directly to the speciality ward rather than being admitted via A&E, like it is done for obstetric cases and neonates, as this will reduce waiting times..." (R1, 4, 5, 7, 10).

4.5.3 Prolonged waiting times

The study findings revealed that respondents experienced waiting times that exceeded expectations. What is thought to be the maximum waiting time is what the respondents experienced as their minimum waiting time. On the contrary, some respondents reported

waiting times up to an hour. The respondents had experienced a maximum waiting time of more than 24 hours, with respondent 6 indicating that they had waited for 3 days. Other respondents reported times ranging from 6 to 18 hours. Respondents indicated that the waiting time from patient registration to the triage nurse is acceptable and expected. From the triage nurse to the doctor, the waiting time is within 30 minutes or less than an hour. The challenge noted by the respondents was the waiting time between the doctors (non-specialist and specialist) and the review time/final disposition. Additionally, respondents acknowledged that their waiting time varied depending on the severity of the patient's condition, the time of the shift, the day of the month they reached the ED (including night shifts, weekends, and month-ends), and the staffing levels. This is noticeable in the following respondents' excerpts:

"…*We got triaged well in time on that particular day but then got delayed when the patient had to be assessed by different doctors of different specialities*. …we *waited more than 24 hours, reaching 3 days, while escorting the patient. Many patients were referred to Marina, probably because it was month-end and some road traffic accident victims were referred..." (*R3, 6).

"...The hospital is usually very busy; you have to be there and wait for your patient to be seen...the longest time I have ever stayed in Marina is about 20 hours because I went and came the following day. The minimum time I have spent there is 6 hours; maybe I found the specialist was already there that particular day, so I did not take that long..." (R1,5,10).

According to the study findings, waiting time is affected by the patient's condition. Some respondents echoed that medical emergencies tend to stay longer than traumatic conditions.

"...Patients with medical emergencies such as acute kidney injury waited longer may be more than 12 hours as compared to those with traumatic conditions…" (R4,11).

4.5.4 Delays in receiving support services

The findings of this study revealed several hindrances to receiving support services, which contributed to extended waiting times. During the study period, the X-ray and CT scan machines were reported to be broken, resulting in the outsourcing of these services

to private facilities. Respondents attributed the prolonged waiting times to delays in receiving radiology and laboratory diagnostic services. The respondents also indicated that the release of radiology and laboratory reports was delayed, and that the radiology department did not operate at night, which worsened the already long waiting times. The respondents stated:

*"…Uh, the problem is that the radiology department is closed at night, so CT scans and X-rays patients have to wait till the following morning. …Worse still, the distance for these supporting services (diagnostic services) is a bit far from the A&E, and the Escort nurses often push the patient alone for investigations. At some points, the CT scan and X-ray machines are broken, and these tests are done at Sir Ketumile…Even waiting for the laboratory results increases the waiting time…" (*R2, 7, 8, 11).

4.5.5 Emergency department communication insufficiency

This study's findings have revealed no linkages between ED activities and the service beneficiaries. During the transfer of patients to the ED, the respondents stated that no one had ever provided them with information or guidance unless they took the initiative to ask. Stack protocols or marking are absent, so one can easily read and be guided. In addition, the findings also revealed that some escort and ED nurses do not fully understand the triage system, making it difficult to explain further the delay in attending to patients. The following are snippets from respondents:

*"……Eish, no information is provided, 'it is just survival of the fittest situation,' we waited and waited, hoping we would be attended to soon…. Now, Escort nurses try to find ways their patient can be seen quickly…" (*R1, 2, 3, 5, 7, 8, 10, 11).

"Some of these triage nurses seem to be clueless on triaging and how to handle patients and their escorts… they need to learn…" (R3, 5)

Likewise, some respondents observed that the ED staff always seem overwhelmed. When asked for updates about the patient or why their patients are not being attended to, the ED staff's responses are usually not convincing. This has sometimes led to confrontations between the ED staff (Nurses) and the escort nurses, the patients or their relatives. On the other hand, some respondents reported that even when they had called

the ED to inform them about the patient they were referring, they were treated as if the ED had not been informed about the patient. Regrettably, they are also made to queue, making them feel that their efforts are not valued. Below are some respondents' extracts:

*"……Eish, no information is provided, 'it is just survival of the fittest situation,' we waited and waited, hoping we would be attended to soon…. Now, Escort nurses try to find ways their patient can be seen quickly…" (*R1, 2, 3, 5, 7, 8, 10, 11).

"…You see, I think they just get disorganised or probably overwhelmed…you bring a patient and do that registration, and then the patient is triaged. I am waiting there, and they are not telling me anything – no updates. Then, the patient expects you to inform her/him what is happening. ...One time, I ran out of patience and confronted them. ...I think there is a need for ED nurses to frequently and consistently provide updates and assurance to the Escort nurses or relatives..." R7.

4.6 Theme 3: Effects of Long Waiting Times

The in-depth interviews revealed that the respondents experienced long waiting times, negatively affecting them. The adverse effects identifiable to the respondents included the effects of long waiting times on the escort nurses and the referring health facility, as presented below:

4.6.1 Effects on the Escort Nurses

The study findings on long waiting times revealed that respondents had primarily experienced physical and psychological impacts and job dissatisfaction.

4.6.1.1 Physical effects

The respondents reported that the long wait times experienced in the ED were physically exhausting because the ED lacks a comfortable designated area for escort nurses; hence, they spend the entire waiting time either standing or sitting by their patients. They also indicated that all situations are physically draining; they spend many hours without resting or eating a decent meal, owing to the distances they cover on the bumpy roads to transport patients. Above all, their role requires them to remain alert and constantly monitor their patients until discharge from the ED. This is notable in the following narrative of the respondents:

"…*It is exhausting or probably debilitating physically because you have travelled a long, bumpy journey without eating and resting. Then here we are, spending more hours standing by the patient on the ambulance stretcher or wheelchair or sitting on the benches. …There are no amenities or comfortable places for escort nurses …no one cares what happens to escort nurses while waiting for their patients to be seen…"* (R1, 2, 3, 5, 7, 8.9, 11).

4.6.1.2 Psychological effects

The study findings indicated respondents were stressed and anxious due to extended wait times, particularly when escorting a patient with urgent medical needs, as there is always concern about the possible deterioration of the patient's condition. Likewise, the extended waiting times also cause disruption of the escort's routines, which contributes to stress and anxiety. Similarly, respondents indicated that they experienced burnout, which probably affected their ability to perform their role as escort nurses. On the other hand, female respondents indicated that the prolonged waiting times further affected them negatively because, coincidentally, they happened to escort the patients during their menses. They stated that the sanitation and hygiene levels at the ED are not conducive for them during this period. It affects their self-image and esteem as female nurses. For further illustration, quotations from the respondents are presented below:

"…Eish, …there is always that fear or worry that a patient may deteriorate or lose life while you have managed to reach the ED, but you didn't manage to have the patient attended to, so how do you debrief colleagues back at the facility..." (All respondents).

"… *It's overwhelming emotionally. You get stressed that the patient is not being assisted, and then the patient asks you what the delay is. ...Sometimes, we women will be on our menses. So, it's really overwhelming because the hygiene there is not that good when you're 'attending', spending those hours or maybe days and days…."* (R6, 7, 8, 10)

"…I once went there when I was breastfeeding, and I had to stay there for 2 days; it was very hard and painful, and the breasts were leaking…" R10.

Similarly, they also feel that their colleagues, the ED nurses, have no regard for them due to the attitude perceived, which is frustrating. One respondent even confronted the ED nurses, demanding updates on the patients and perceived lack of recognition:

"…Eeeh…I must be treated as a fellow nurse, not just an ordinary patient escort…" R7.

4.6.1.3 Reduced job satisfaction

Based on the interviews conducted, it was evident that respondents were dissatisfied with their roles due to prolonged waiting times. They disclosed that failure to have their patients attended to within the acceptable waiting times often leads to frustrations and a negative perception of the healthcare facility and its quality of care. Respondents who have repeatedly experienced long wait times tend to shun this role when nominated to accompany the referred patients, which has the potential to lead to delayed patient diagnosis and treatment. These snippets demonstrate further:

"…*You see*, we have now *a situation whereby people (Nurses) are uncomfortable referring /escorting patients…"* R5.

"…I feel like I don't want to escort patients anymore; it is frustrating and exhausting. …Waiting for a long time makes me impatient and agitated. …Imagine bringing a patient up here and then complicating while waiting to be seen or dying. …No, that is not quality care…" R11.

"…It is the most painful experience which produces a cycle of continuous low morale at the workplace…" R9.

4.6.2 Effects on the referring facility

From the interviews, it is clear that the respondents were cognisant of the effects of long waiting times on their healthcare delivery system. These effects can lead to general distrust and a negative perception of the healthcare system. The respondents narrated the spillover effect of the long waiting times at the healthcare facility that referred the patient to the PMH ED.

4.6.2.1 Work overload/staff shortage

Respondents expressed concern over the extended waiting times, as they potentially lead

to a loss of productivity, as the escort nurses usually miss valuable hours from their work shifts. They were cognisant of the consequences - an increased workload for the remaining staff, as providing escort nurses necessitates backfilling the position in most of the facility, which is very difficult due to the nursing staff shortage. This is notable in the below extracts:

"…It's also draining staff-wise because the longer I stay in Marina, the more I am unavailable for my next shift, which leads to more shortage because there is no one to back-fill my place on the shift…This, in the end, compromises the quality of care provided…" (R5, 8, 10).

4.6.2.2 Transport challenges

The respondents reported that lower-level facilities typically have one or two serviceable ambulances available at a time. They expressed concern about the transport crisis in case of another emergency, as the ambulance may be occupied at PMH with an escort nurse for extended hours. Likewise, patients awaiting evacuation will be disadvantaged due to delayed diagnosis and treatment. The following were the extracts from some respondents:

"…Once you are at Marina and there is no transport, and there is need for outsourcing other services for a patient like CT scan, you have to assist with transport which causes further delay…" R1.

"…While waiting for the patient to be cleared at the ED, I will also have the ambulance around, which may be needed at our station ...and you know that there are very few facilities with more than 2 serviceable ambulances…. So, these prolonged waiting times contribute to a shortage of transport…" R4.

4.7 Conclusion

This chapter illustrates the findings from in-depth interviews with escort nurses at Princess Marina Hospital in Gaborone, Botswana. Three main themes emerged from the study: resource limitations in PMH ED, operational challenges in PMH ED, and the effect of long waiting times. Further analysis identified eleven sub-themes: inadequate physical space, equipment shortages, insufficient staffing levels, lack of essential

facilities, high patient volume, inefficient triage and referral processes, prolonged waiting times, delays in support services, ED communication insufficiency, effects on escort nurses and the referring facility. These themes elucidate challenges escorting nurses face in the ED, how these affect waiting time and the adverse effects of extended waiting times on the escort nurses. It shows they affect their physical and emotional well-being, reducing job satisfaction. The study findings have further revealed that the extended waiting times affect not only the escort nurses but also the entire healthcare system, with the potential to exacerbate mistrust and negative perceptions of the system. This can further compound vulnerable populations' access to quality healthcare, lower productivity, and increase the cost of running an ineffective and inefficient healthcare system. This chapter lays a foundation for the upcoming discussion and recommendations, which aim to address the concerns and provide ways to improve healthcare delivery in emergency departments.

CHAPTER FIVE
DISCUSSION OF FINDINGS AND CONCLUSION

5.1 Introduction

This study explored the "***experiences of escort nurses on waiting time and associated challenges in the emergency department of Princess Marina Hospital in Gaborone, Botswana.***" Hence, the findings of the study will be discussed in this chapter. The basis for the discussion was informed by the three major themes: the resource limitations in PMH ED, operational challenges in PMH ED, the effects of long waiting times, and the sub-themes that emerged.

5.2 Respondents' socio-demographic data

Eleven licensed Escort Nurses from various lower-level healthcare facilities outside Gaborone, who were involved in inter-facility patient transfers, participated in this study. The demographic features of the respondents included five males and six females, aged 29 to 44 years, with the majority falling within the 30- to 39-year range. Their work experience ranged from 7 to 21 years, with most having 11 to 17 years of service. All the respondents enrolled in the study have served for a considerable period. Therefore, their involvement in patient transfers between lower-level healthcare facilities and district or tertiary hospitals provided insight into the phenomenon being studied. Similarly, studies by Mndebele et al. (2024) and Blay et al. (2014) on inter- and intra-hospital patient transfer underscored the importance of escort nurses' experience and training as a vital element in the escort nurses' role.

5.3 Themes

5.3.1 Theme 1: Resource limitations in PMH ED

This theme describes the resource limitations as challenges that affect the waiting times encountered by escort nurses at the PMH ED. The theme comprises four sub-themes: Inadequate physical space, equipment shortages, insufficient staffing levels, and lack of essential facilities. Various researchers have studied these hindrances in different settings and institutions globally, and some of the findings in this study relate to other findings (Canale and Cristina, 2022; Al Nadhi et al., 2021; Kenny et al., 2020). For instance, the current study has highlighted the structural inadequacy of the PMH ED,

which may contribute to a limited bed capacity of 19 beds, given the increased patient inflow seeking emergency care. This is similar to the study findings by Al Nhdi et al. (2021), Paling et al. (2020), Morley et al. (2018), and Afaya et al. (2017), which revealed that hospitals operating at full bed capacity affect emergency department patient flow due to limited bed space for patient admission. This demonstrates that limited infrastructure contributes to extended waiting times.

Furthermore, the study findings revealed several challenges associated with prolonged waiting times, including inadequate staffing, equipment shortages, and lack of essential facilities. Le et al. (2022) and Lauks et al. (2016) reported similar findings, indicating that nonavailability and inefficient ancillary services resulted in extended waiting times. It can be established that a shortage of equipment, such as sphygmomanometers, glucometers, beds, and other diagnostic devices, directly leads to increased patient waiting times, as nurses and doctors are forced to delay procedures and treatments. The findings align with previous studies by Moyimane, Matlala, and Kekana (2017), which illustrated that a shortage of medical equipment was perceived as responsible for prolonging patients' hospital stays.

This study's findings also illustrate that staffing deficiencies can be directly linked to extended waiting times. As of December 2024, PMH ED was staffed with two emergency physicians, 13 medical officers, 36 general nurses, and one trauma nurse, with an annual volume of approximately 19,000. The high volume of patients overwhelms available nurses, doctors, and specialists, resulting in prolonged patient stays and ultimately impacting patient flow through the emergency department. Prior studies have also reported that lower staffing levels are associated with a significant increase in left-without-being-seen (LWBS) rates and an increase in waiting times (Al Nhdi et al., 2021; Paling et al., 2020; Morley et al., 2018; and Afaya et al., 2017). However, comparing the findings to previous studies, it is worth noting that an increase in nurse-to-patient ratios is associated with improved patient outcomes (Butler et al., 2019).

5.3.2 Theme 2: Operational challenges in PMH ED

Theme two elucidated the operational challenges contributing to prolonged waiting times encountered by escort nurses at the PMH ED. Five sub-themes emerged from this theme: high patient volume, inefficient referral and triage processes, prolonged waiting times, delays in support services, and inadequate communication within the ED. The study findings illustrated an increased patient inflow into the ED and delays in accessing radiological and laboratory reports and results.

As indicated, PMH ED is at the apex of the national referral system and a gateway for patients to access complex and comprehensive specialised medical care. This finding is similar to that of Adeniji and Mash's (2016) study, which highlighted that emergency departments in tertiary hospitals serve as critical entry points for patients requiring advanced diagnostic services and specialised treatment unavailable at the primary or secondary care level. Therefore, the hospital's ED has adapted the SATS to help manage the influx of patients nationwide. However, the study findings revealed that the system is not as effective and efficient as expected, due to experienced extended waiting times, with a maximum period of approximately 72 hours. This exceeds the expected wait times of most respondents, typically six hours, and the recommended maximum waiting time of four hours. Additionally, Savioli et al. (2022) and Afaya et al. (2017) have identified inefficiencies in triage procedures, which could lead to the misapplication of resources and longer wait times for critically ill patients. Hence, meticulous and cost-effective triage systems must be in place to manage patient flow and optimise resource allocation within the ED and referral system.

The study's findings further showed that ED staff delayed transporting admitted patients to their respective wards, thus increasing overcrowding and long waiting times. Similarly, Sartini et al. (2022) and the American College of Emergency Physicians (2018) have also reported that ‘patient boarding’ (the practice of keeping patients admitted to the ED for prolonged periods due to inadequate capacity of inpatient ward) is one of the most significant challenge contributing to extended waiting times in ED. Accordingly, this has a negative effect on patient care, mortality, morbidity, patient satisfaction, the job satisfaction of escort nurses, and the overall quality of care. Additionally, this contributes to increased rates of patients leaving the ED without being seen and increased medical errors (Carter et al., 2021; Epstein et al., 2019; and Phillips

et al., 2017). Lobatse et al. (2024) and Mamalelala et al. (2023) have also noted that the PMH ED is at the apex of the public sector referral system and also serves as the point of admission for walk-in patients, consequently affecting the waiting times.

The study findings also indicated poor communication between the ED staff (Nurses and Doctors) and the escort nurses in the emergency department, potentially exacerbating anxiety among the escort nurses and patients during prolonged waiting times. This stresses the escort nurses, who play a patient advocate and liaison role, as they find it challenging to explain to their patients why it is taking so long to be attended to. This finding is contrary to the results reported by Mndebele et al. (2024), McKenna et al. (2019), and Blay et al. (2015, 2017), which indicated that good communication between escort nurses and ED staff facilitated the escort nurses' role as patient advocates, as well as that of the liaison staff. This plays a key role in preventing miscommunication, helps to alleviate anxiety, and demonstrates a more patient-centred care approach. Surprisingly, a study by Sartini et al. (2022) found that the number of escorts, including escorting staff, negatively affects the workflow in the ED. Although they do not play an active role in the process, they may unintentionally annoy the staff, increasing the workload and pressure in the ED, leading to prolonged waiting times. For this reason, some hospitals have reduced the number of escorts per patient to only one.

A notable finding of this study was that some respondents were so agitated by long waiting times that they confronted their fellow nurses in the ED. This finding is similar to other studies that investigated violence in the ED. The ED is recognised as an area at unique risk of violence because of its contextually and environmentally unique circumstances, including long waiting times for consultation or admission; the unanticipated nature of the illness; 24-hour opening; intense interpersonal interactions; adverse unexpected outcomes, such as death and high levels of stress for patients and their escorts (Haider et al., 2019; Luck, Jackson, and Usher, 2019).

5.3.3 Theme 3: The effect of long waiting times

Theme three represented the effect of extended waiting times. The study findings showed that the respondents experienced a range of physical and emotional/psychological effects due to the prolonged waiting times they endured at the PMH ED while escorting their patients. The physical effects reported included

backaches and general weariness due to long hours of standing or sitting by the patient's side with no comfort. In contrast, the emotional implications included anxiety, stress, agitation and frustration. Similarly, studies by Sartini et al. (2022) and Kenny, Chang, and Hemmert (2020) have shown that waiting in the emergency room can be frustrating for many patients and escorts. In addition to the increase in aggressive attitudes in some escorts and patients when the ED waiting room is crowded, it also puts escort nurses and patients at risk of hospital-acquired infections.

Furthermore, Daniels and Abuosi (2020) and Blay (2017) acknowledged that transferring patients is part of the nursing routine, but the time and frequency of this task pose challenges to the nurse. This task has been associated with both physical and mental exhaustion. Comparatively, studies by Gulavani and Shinde (2020) and Mohanty (2019) have observed that nursing is a very demanding profession, with increased demands leading to increased stress among nurses, contributing to burnout. Hence, a characteristic syndrome of physical reactions occurs when a person is subjected to a stressor. Thus, the stress response can be physical, emotional, psychological, or spiritual, usually involving a combination of these dimensions. Similarly, burnout is classified by the WHO as an occupational disease, a consequence of chronic stress (Acea-López, 2021; Pérula, 2018). As stated earlier, this syndrome has three dimensions: emotional exhaustion, depersonalisation and a sense of low personal accomplishment (Maslach et al., 2018).

Moreover, burnout has been associated with emotional, behavioural, psychosomatic and social alterations, as well as loss of work efficiency and disturbances in family life (Maslach et al., 2018; Pérula, 2018). Similarly, studies by Hellin et al. (2022), Safdar, Susilaningsih, and Kurniawan (2019), and Kane (2018) have shown that intense, continuous, and repeated stress can become a negative phenomenon, known as 'distress,' which can lead to physical illness and psychological disorders. Kane further asserted that the nursing profession is subject to tremendous stress, which impacts work performance and ultimately affects patient care. Sartintine et al. (2022), Gulavani and Shine (2020), and Kane (2018) also recognised that persistent stress takes a toll when additional stress factors are present, such as home stress, conflict at work, inadequate staffing levels, poor teamwork, inadequate training, and poor supervision.

On the other hand, the current study revealed that respondents were frustrated with the prolonged waiting times, resulting in dissatisfaction. Most respondents reported that they would try to find an excuse for not escorting the patient if nominated. Therefore, recognising that nurses are the primary care providers in healthcare institutions and play a significant role in intra-hospital and inter-hospital patient transfers, dissatisfaction significantly impacts the quality of healthcare provision and patient outcomes. Consequently, any healthcare institution's pursuit of high-quality patient care is based on its ability to engage in activities that will ensure the prudent use of nursing resources. Thus, this underscores the urgent need to find ways to mitigate the prolonged waiting times. Interestingly, studies by Jermsittiparsert et al. (2021), Dwinijanti, Adhikara, and Kusumapradja (2020) and Atefi, Abdullah and Wong (2018) revealed that working many hours with limited staffing levels is considered or perceived by nurses as a heavy workload and one of the crucial factors that potentially affect job satisfaction. The study further asserted that stress and burnout resulting from heavy workloads were among the most frequent reasons for nurses to leave their jobs. Not surprisingly, within the context of burnout, Maslach's theory stands out (Maslach, 2018; 1998), considering it the state that occurs when there is a prolonged mismatch between a person and one of the six dimensions of work: workload, reward, control, community, equity, and values. Therefore, it can be concluded that the heavier the workload perceived by nurses, the lower the job satisfaction will be. Thus, the lower the job satisfaction, the greater the nurse's intention to leave the system.

The other issue revealed by this study was the effect of the extended waiting times on the referring facility. As a result of the ED's long waiting times, referring facilities experience staffing level shortages, increased workload, and ambulance or transport crises. Respondents in this study described how escorting patients to the ED and subsequently experiencing extended waiting times negatively affect their local healthcare facility, creating a workload and staff shortage that affects the quality of care. They sometimes feel pressured and believe they could remain at their local healthcare facilities. Comparatively, low staffing levels and increased demand for health care create a potentially higher workload associated with a more hostile work environment and lower job satisfaction (Dall'Ora, 2020; Saha et al., 2020; Butler et al., 2019; Zeytinoglu et al., 2017). On the other hand, a study by Hawkins (2020) indicated that ED staff felt

pressured to remain in the ED and, as a result, could not escort or accompany referred patients. The difficulty in making a transfer-related decision may be due to nurses' concerns about who would take responsibility for their remaining patients while they are away. The extended stays in the ED contribute to overcrowding in the department, adverse clinical outcomes and compromised standards of privacy and dignity for patients. Thus, shorter wait times prevent these bottlenecks in patient care.

The study further showed that escort nurses were also concerned that escorting patients to the PMH ED was time away from other patients already in their care. Consequently, if the escort nurse had to leave the department to escort the patient, this would increase the workload on the remaining nurses. Therefore, decreased safe care for those left behind can offset the safety benefit gained for the patient transported. Hence, the nurse cannot hold the clinical risk and responsibility for the other patients before leaving their department with the referred patient.

As observed from the study findings, the extended waiting times have logistical and financial implications for the healthcare system and other supporting services. In this study, the extended waiting times meant that the ambulance would be delayed for that long, depriving other patients of the opportunity to be referred quickly for further treatment. Additionally, studies by Daniels and Abuosi (2020) and Priyani and Uthayakumar (2020) on hospital logistics related to emergency response also identified inadequacies in certain aspects of the referral mechanisms, feedback, and other health system factors that affect emergency care, such as the availability of patient transportation means.

5.4 Implications of Findings

5.4.1 Emergency and Trauma Nursing Practice

Escorting a patient is a very demanding nursing task in itself. What is more stressful in most instances is that inter-facility patient transfers usually involve long distances on poor roads and ill-equipped ambulances. This makes it difficult for the escorting nurses to intervene promptly and appropriately when the patient’s condition deteriorates while en route to the next level of care. Thus, working with highly demanding units like ED requires adequate staffing levels to ensure balanced and effective scheduling of work.

This, in return, will help reduce stress levels among nurses and facilitate active participation in teamwork with the potential to increase job satisfaction. It is also vital that ED nurses and escort nurses collaborate as they undertake their assigned roles. This will ensure a unified purpose among the nurses, and protocols and triage orientation/training should be extended to all lower-level facility nurses to provide a clear understanding of work processes in the ED.

5.4.2 Emergency and Trauma Nursing Education

Stress and burnout are typically experienced when the demands on nurses exceed their available resources. Stress has a cost for individuals in terms of health and well-being. Educating nurses on stress management and providing them with skilled training in conflict resolution and assertiveness will help reduce stress among nurses. Nurse educators can equip budding nurses with a strong knowledge base and skills to work independently in the clinical field. A stress management programme can be incorporated into the nursing education syllabus to enable nurses to manage their stress effectively in the future. Furthermore, working in a highly demanding unit like the ED requires effective and efficient strategies to provide much-needed care within acceptable times. Therefore, nurses ought to be trained in triage knowledge and skills. Skilled human resources help reduce waiting times at the ED by enhancing efficiency and facilitating practical assessments of incoming patients.

5.4.3 Emergency and Trauma Nursing Administration

Nursing administrators should utilise effective healthcare staffing models to ensure safe and adequate staffing at the emergency departments of tertiary hospitals and lower-level healthcare facilities. This will help reduce workload and staff shortages, reducing stress and burnout among the ED and lower-level facility nurses. Administrators should ensure that ED protocols are shared with all lower-level facilities and that local clinics are open or operate 24 hours a day to ensure that only emergency cases are brought to the ED. The administrators should advocate for and facilitate specialised training for nurses in emergency and trauma care and any other training that will enhance the skills of nurses working at or with the ED. Skilled human resources have been proven in numerous studies to contribute to the reduction of emergency department waiting times. Regular triage and protocol reviews will help identify and address some process bottlenecks.

Administrators should advocate for trained ancillary staff to enhance communication in the ED to assist with information dissemination and patient guidance.

5.4.4 Emergency and Trauma Nursing Research

The present study has highlighted the lived experiences of escort nurses involved in inter-facility patient transfers from lower-level hospitals outside Gaborone, Botswana, on waiting time and associated challenges in the PMH ED. Notably, prolonged waiting times result in stress, burnout, and job dissatisfaction among escort nurses. Hence, continuous monitoring and evaluation are required, and other researchers can conduct experimental studies to manage stress and burnout and improve the job satisfaction of escort and ED nurses.

5.5 Conclusion

The study findings demonstrated a detailed description of the experiences of escort nurses on waiting times and associated challenges at the PMH ED in Gaborone, Botswana. From the descriptions, nurses elaborated on several challenges associated with prolonged waiting time, such as the structure of the PMH ED, equipment and staff shortages, lack of essential facilities, inefficient referral and triage processes, and ED communication insufficiency. The nurses further indicated that long waiting times affect role expectations between the ED and escort nurses, and the welfare of the escort nurse and the system.

The findings elucidate the adverse effects of the prolonged waiting times. The extended waiting times affect the escort nurses and the entire healthcare system, potentially exacerbating mistrust and negative perceptions of the system. These results are crucial for informing policymakers and influencing policies through collaboration among relevant stakeholders, such as the MOH, Training institutions, and healthcare facilities. This insight is vital for promoting change through process reengineering, enhancing the referral system, and providing specialised personnel training, all of which aim to improve patient care and the well-being of nurses.

5.6 Recommendations

In light of the current study findings and conclusions made, the following recommendations directed to different stakeholders, including the MOH, Botswana, healthcare training institutions, PMH administrators, policymakers, and healthcare

providers, are suggested to reduce extended waiting time in the PMH ED and its effect on escort nurses:

1. Review policies and protocols

The current referral system policy or protocol appeared to be a cause for concern for all respondents, with most complaining about its repetitive nature and the misuse of human capital. It is suggested that these protocols be reviewed to allow for direct referral to the specialist without having to queue again at the accident and emergency unit. Additionally, escort nurses should be released immediately after handover to alleviate the burden of spending long hours in the ED with patients under the PMH ED nurses' care. This will foster teamwork and help alleviate staff shortages in the nursing profession.

2. Enhanced Triage

As illustrated in the study findings, the triage process is not done efficiently, as evidenced by extended waiting times. Therefore, training nurses and medical officers on rapid and accurate triage assessment to prioritise patients based on acuity is crucial in reducing waiting times. Knowledgeable healthcare providers tend to provide timely care with minimal errors.

3. Staffing optimisation

Staff shortage was one of the main challenges associated with long waiting times.

Increasing staff levels for nurses, doctors, and specialists, and optimising staff allocation to control patient flow in the emergency department, will improve extended waiting times. Reducing the clinician-to-patient ratio will ensure that patients receive optimal quality care. Actively engaging in professional training of nurses and doctors, especially in emergency and trauma care, would significantly minimise the waiting times. It will ensure healthcare personnel are better equipped to handle emergency cases, raising the care standard.

4. Patient flow management

The study revealed that extended patient waiting times resulted from poor patient flow management, with all patients queuing in the same lane, despite being scheduled to be

seen by different specialists. Allocating designated specific bays for patient groups, for example, having a dedicated area for trauma and orthopaedic patients, surgical patients, etc, as is the case for paediatric patients, can significantly reduce the waiting times and overcrowding in the emergency department.

5. Reinforce communication and education

The results showed no proper communication channels to relay information to patients, their relatives, and the escort nurses at the PMH ED. Despite enduring the burden of waiting for a long time, ED nurses and doctors do not take the initiative to allay the anxiety of these patients and escort nurses. Since the ED is constantly busy engaging dedicated ancillary staff to communicate with patients and/or their escorts about waiting times and reasons for delays, educating them on the appropriate use of the ED and emphasising the need to utilise primary healthcare services can help foster teamwork and improve waiting times.

6. Establish effective psychosocial support services for healthcare workers

The study findings revealed the adverse effects of prolonged waiting times on escort nurses, highlighting their effect on their physical, emotional, and psychological well-being. Establishing an effective psychosocial support service for healthcare workers can help them navigate stress, burnout, and job dissatisfaction. Addressing these social issues will empower healthcare workers to enhance job satisfaction, boost morale, and retain staff, strengthening the workforce.

5.7 Study strengths

A significant strength of this study is its focus on waiting times in the ED, which is one of the performance indicators used to assess the quality of care. Waiting time is an important factor in determining hospital efficiency and patient outcomes. The findings from this study could inform ways to improve service delivery.

Most studies on waiting time focus on patients and ED staff. In contrast, this study highlights the experiences of escort nurses, who are often overlooked but could provide insights into patient flow and collaboration between lower-level facilities and PMH. The exploration of escort nurses' experiences enables this study to provide detailed and rich qualitative data, highlighting the causes of delay and potential solutions that may not be

captured through numerical values. Through these solutions, the study can potentially guide policymakers and other relevant stakeholders in strategising and managing patient flow in the ED.

5.8 Study limitations

The study's choice to be conducted at one site, Princess Marina Hospital, limits its generalisability since the findings may not fully apply to other hospitals or emergency departments in Botswana or elsewhere. However, the detailed descriptions of the participants' experiences provide a picture and insight into the experiences of escort nurses on waiting times and associated challenges in an emergency department. For future research, the study scope can be expanded to multiple hospitals with emergency departments for broader applicability.

Considering that experiences are subjective, findings based on the opinions of escort nurses may differ, which could lead to bias. Interviews portray more individual perceptions than facts. Nevertheless, practising reflexivity by keeping a journal to document possible biases and seeking feedback and criticism by peer-checking was crucial in ensuring the data was credible.

For future research, combining qualitative and quantitative methods to investigate the phenomenon at hand would give a more comprehensive analysis. From an ethical perspective, there was a potential risk of personal harm, including threats to job security or professional repercussions. Therefore, some escort nurses hesitated to share negative experiences because they feared losing their jobs, affecting the accuracy and nuance of the responses. Even so, respondents were assured of confidentiality and anonymity, which encouraged honest participation and reduced bias.

5.9 Dissemination and utilisation of study findings

The study findings were disseminated to various stakeholders to facilitate the implementation of the recommendations. The findings were submitted in hard-bound copies to the UNZA School of Nursing Sciences and the University of Zambia's main library to contribute to the body of knowledge. Hard-bound copies were provided to Princess Marina Hospital management and the Ministry of Health, Botswana, to support

formulating policy guidelines and reengineering processes in emergency departments, enhancing timeliness and efficiency in emergency care. The findings were published in international peer-reviewed journals. Additionally, the findings were presented at conferences and the PMH and MOH Botswana meetings.

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7.0 APPENDICES

7.1 APPENDIX A: PARTICIPANT INFORMATION SHEET

Title: Experiences of escort nurses on waiting times and associated challenges in an emergency department at Princess Marina Hospital in Gaborone, Botswana.

Investigator: Ms. Tapiwa Bojosi **Contact:** +26772163742 or +260765453062

Email: tapiwakuli@gmail.com

Introduction

My name is Tapiwa Bojosi. I am a student at the University of Zambia in the School of Nursing Sciences pursuing a Master of Science Degree in Emergency and Trauma Nursing. You are requested to participate in a study exploring the experiences of escort nurses on waiting times and associated challenges in an emergency department in Princess Marina Hospital in Gaborone, Botswana. I will read you a consent form explaining the research study you are being asked to participate in. Please feel free to ask any questions before you agree to participate. You may also ask questions during the study.

Background and rationale for the study

Emergency Departments (EDs) are pivotal gateways within global healthcare systems, providing immediate care to patients with urgent and emergent medical and traumatic conditions. The importance of EDs in referral hospitals is amplified as these institutions are at the apex of healthcare networks and often handle the most critical cases transferred from lower-level facilities. Therefore, efficient ED operations in referral hospitals are crucial. Prolonged waiting times in EDs represent an integral and widespread challenge in global healthcare delivery, indicating system inefficiencies. These include resource inadequacies, human resource shortages, congestion, and flawed referral systems. Prolonged waiting times result in ED overcrowding, which causes stress and burnout among healthcare providers.

This study, therefore, highlights the dynamics of waiting times from the perspective of escort nurses by identifying critical bottlenecks and inefficiencies contributing to patient care delays. This information will provide the basis for understanding ED operations

within PMH and similar healthcare settings, resulting in streamlined processes, reduced waiting times, and improved patient outcomes.

Purpose

This study aims to understand the experiences of escort nurses on waiting times and associated challenges in the emergency department within Princess Marina Hospital in Gaborone, Botswana.

Procedure:

Informed consent will be obtained from participants. Data will be collected through an in-depth interview using an interview guide through face-to-face interactions and secure online platforms such as video conferencing. The interview will last 45-60 minutes. Participant confidentiality and anonymity will be ensured.

Who will participate in the study?

The study will be conducted on escort nurses undertaking inter-facility patient transfers from lower-level hospitals outside Gaborone to PMH ED in Gaborone, Botswana. These nurses should be licenced to practice, have at least six months of work experience, be willing to consent to participate in the study, and be proficient in English and Setswana.

Risks / Discomforts:

Considering the nature of the study, there is potential for harm to the participants. Discussing waiting times and related work experiences might evoke emotional distress or stress, especially if participants have had negative or challenging experiences. To minimise this discomfort, participants will be provided with psychosocial support resources if needed. There is also the potential for professional repercussions if participants share critical or negative experiences. Therefore, the researcher will maintain confidentiality and anonymity to ensure that their participation and responses will not negatively impact their employment status or professional relationships.

Benefits:

Although the benefits of this study will not be experienced immediately, the findings will guide policy in improving the overall referral system in Botswana and ED operations in referral hospitals, especially in terms of waiting time. Understanding the perspectives of escort nurses is important in identifying the factors contributing to

delays, developing strategies to reduce waiting times, enhancing patient flow management, and improving the working conditions for essential healthcare providers.

Voluntary Participation:

You are under no obligation or coercion to participate, so please be aware. You are free to withdraw from participating in the study at any time without feeling obligated to continue. Furthermore, you are not required to give a reason for quitting the study.

Confidentiality of participants:

The results of this study will be kept strictly confidential and used only for research purposes. The participant's identity will be concealed. His/her name will not appear anywhere on the coded forms with my information. Paper and computer records will be kept under lock and key and with password protection, respectively.

Questions:

If you have any other questions about the study, call Tapiwa Bojosi, the principal investigator, at **+26772163742 or +260765453062**.

7.2 APPENDIX B: INFORMED CONSENT FORM

Should you choose to participate in the research, you will be required to sign the consent form attached:

Study Title: Experiences of escort nurses on waiting times and associated challenges in an emergency department at Princess Marina Hospital, Gaborone, Botswana

Statement of consent/assent

..... has explained the contents of the participation information sheet to me, which I fully understand. I have been allowed to ask questions, which have been answered satisfactorily. I fully understand that my decision to participate in this study will not affect my job. I have been assured that my anonymity and confidentiality will be maintained. I am aware that I may withdraw at any time without penalty. I understand that by signing this form, I do not waive any of my legal rights but merely indicate that I have been informed about the research study in which I voluntarily consent to participate.

Name of Participant: _____

Signature of Participant: _____

Date: DD/MM/YYYY

Name of Witness: _____

Signature of Witness: _____

Date: DD/MM/YYYY

Name of interviewer: _____

Signature of Interviewer: _____

Phone number: _____

Date: DD/MM/YYYY

For more information, /inquiries, please contact:

1. Tapiwa Bojosi (Researcher): The University of Zambia, School of Nursing Sciences. Cell: +267 72163742, email: tapiwakuli@gmail.com
2. Dr Marjorie Kabinga Makukula (Principal Supervisor): The University of Zambia, School of Nursing Sciences, P.O. Box 50110, Lusaka, Zambia. Cell: +260 977889430, email: marjorie.kabinga@unza.zm
3. Mr Michael Kanyanta (Co-Supervisor): The University of Zambia, School of Nursing Sciences, P.O. Box 50110, Lusaka, Zambia. Cell +260 977843351, email: michaelkanyanta@gmail.com
4. The Chairperson, The University of Zambia, Biomedical Research Ethics Committee, P.O. Box 50110, Lusaka, Zambia. Cell +260 1256067, email: s.munsaka@unza.zm

7.3 APPENDIX C: DATA COLLECTION TOOL

7.3.1 In-depth interview guide

Study title: Experiences of escort nurses on waiting times and associated challenges in an emergency department at Princess Marina Hospital, Gaborone, Botswana

Respondent No: _____

Date of interview: _____

Place of interview: _____

Name of interviewer: _____

Section A: Socio-demographic characteristics

Please place an X at the correct answer or fill in the correct answer in the questions below.

What is your gender?

Male ☐ Female ☐

What is your age? Please specify under the age category.

Age category	Under 20 years	20-29 years	30-39 years	40-49 years	50-59 years	60 years and above

What is your level of education?

Primary Secondary Tertiary (specify qualification attained)	

Are you currently registered with the Nursing and Midwifery Council of Botswana? (Please provide evidence)

_____

How long have you been practising as a qualified nurse?

_____

Section B: Interview Questions

Core question

1. What are your experiences as an escort nurse on waiting times and associated challenges in the emergency department of Princess Marina Hospital in Gaborone, Botswana?

Probe questions

1. Were you informed about the expected waiting times upon arrival?
2. How long did you have to wait before being attended to by a medical professional?
3. Was the waiting time consistent during different visits, or did it vary?
4. Did the time of day (morning, afternoon, evening) affect the waiting time?
5. Were any updates provided about delays or changes to the waiting time?
6. How would you describe the triage process and its efficiency?
7. Were any facilities or amenities available to make the waiting experience more comfortable?
8. What do you think caused the waiting times you experienced?
9. How were you affected by these waiting times?
10. How did the waiting time affect your overall perception of the hospital's emergency services?
11. What changes could reduce waiting times at the emergency department?

7.4 APPENDIX D: PERMISSION LETTERS TO CONDUCT THE STUDY

7.4.1 Letter to UNZABREC

Tapiwa Bojosi
P. O. Box 754
Moshupa, Botswana

17 July 2024

The Chairperson
University of Zambia Biomedical Research Ethics Committee
P.O. Box 50110
Lusaka

U.f.s: The Dean, School of Nursing Sciences
Assistant Dean Post-graduates, School of Nursing Sciences

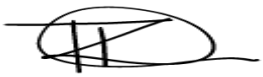
Dear Sir/Madam

RE: REQUEST TO CONDUCT RESEARCH

As a student pursuing a Master of Science Degree in Emergency and Trauma Nursing, I am required to conduct a research study in partial fulfilment of my program. In light of this, I am submitting the following study proposal: Experiences of escort nurses on waiting times and associated challenges in an emergency department in Princess Marina Hospital, Gaborone, Botswana, for review and approval to proceed to the next stage.

I hope that my application will be taken into consideration.

Yours faithfully



Tapiwa Bojosi
Cell: +267 72163742/+260765453062
Email: tapiwakuli@gmail.com

7.4.2 Letter to Health Research and Development Committee (HRDC)

Tapiwa Bojosi

P. O. Box 754

Moshupa, Botswana

19 September 2024

The Chairperson

Health Research and Development Committee

Ministry of Health

Private Bag 0038

Gaborone, Botswana

U.f.s: The Dean, School of Nursing Sciences

Assistant Dean Post-graduates, School of Nursing Sciences

Dear Sir/Madam

RE: REQUEST TO CONDUCT RESEARCH

As a student pursuing a Master of Science Degree in Emergency and Trauma Nursing, I am required to conduct a research study in partial fulfilment of my program. In light of this, I am submitting the following study proposal: Experiences of escort nurses on waiting times and associated challenges in an emergency department in Princess Marina Hospital, Gaborone, Botswana, for review and approval to proceed to the next stage.

I hope that my application will be taken into consideration.

Yours faithfully

Tapiwa Bojosi

Cell: +267 72163742/+260765453062

Email: tapiwakuli@gmail.com

7.4.3 Letter to Princess Marina Hospital (PMH) Research & Ethics Committee

Tapiwa Bojosi

P. O. Box 754

Moshupa, Botswana

18 October 2024

The Chairperson

Princess Marina Hospital Research & Ethics Committee

P.O. Box 258

Gaborone, Botswana

U.f.s: The Dean, School of Nursing Sciences

Assistant Dean Post-graduates, School of Nursing Sciences

Dear Sir/Madam

RE: REQUEST TO CONDUCT RESEARCH

As a student pursuing a Master of Science Degree in Emergency and Trauma Nursing, I am required to conduct a research study in partial fulfilment of my program. In light of this, I am submitting the following study proposal: Experiences of escort nurses on waiting times and associated challenges in an emergency department in Princess Marina Hospital, Gaborone, Botswana, for review and approval to proceed to the next stage.

I hope that my application will be taken into consideration.

Yours faithfully

Tapiwa Bojosi

Cell: +267 72163742/+260765453062

Email: tapiwakuli@gmail.com

7.5 APPENDIX E: APPROVAL LETTERS (UNZABREC, HRDC AND PMH) TO CONDUCT STUDY

UNIVERSITYOFZAMBIA
BIOMEDICALRESEARCHETHICSC
OMMITTEE

Fax: + 260-1-250753 E-mail: unzarec@unza.zm
Federal Assurance No. FWA00000338 IRB00001131 of IORG0000774 NHRAR-REC No 2021-05-0002

28th August 2024

Your REF. No. 5629-2024.

Mrs. Tapiwa Bojosi,
University of Zambia,
School of Health Sciences,
PO Box 50110,
Lusaka.

Dear Mrs. Bojosi,

Telephone: +260 977925304, Ridgeway Campus Telegrams: UNZA, LUSAKA P.O. Box, 50110
Telex: UNZALU ZA 44370 Lusaka, Zambia

RE: EXPERIENCES OF ESCORT NURSES ON WAITING TIMES AND CHALLENGES ENCOUNTERED IN THE EMERGENCY DEPARTMENT AT PRINCESS MARINA HOSPITAL IN GABORONE, BOTSWANA.
(REF. NO. 5629-2024)

The above-mentioned research proposal was presented to the Biomedical Research Ethics Committee on 28th August, 2024. The proposal is **approved**. The approval is based on the following documents that were submitted for review:

a) Study proposal
b) Questionnaires
c) Participant Consent Form

APPROVAL NUMBER : REF. No. 5629-2024.
This number should be used on all correspondence, consent forms and documents as appropriate.

i. **APPROVAL DATE : 28th August 2024**
ii. **TYPE OF APPROVAL : Standard**
iii. **EXPIRATION DATE OF APPROVAL : 27th August 2025**

iv. After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the UNZABREC Offices should be submitted one month before the expiration date for continuing review.

v. **SERIOUS ADVERSE EVENT REPORTING**: All SAEs and any other serious challenges/problems having to do with participant welfare, participant safety and study integrity must be reported to UNZABREC within 3 working days using standard forms obtainable from UNZABREC.

vi. **MODIFICATIONS**: Prior UNZABREC approval using standard forms obtainable from the UNZABREC Offices is required before implementing any changes in the Protocol (including changes in the consent documents).

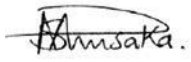
vii. **TERMINATION OF STUDY**: On termination of a study, a report has to be submitted to the UNZABREC using standard forms obtainable from the UNZABREC Offices.

viii. **NHRA:** You are advised to obtain final study clearance and approval to conduct research in Zambia from the National Health Research Authority (NHRA) before commencing the research project.

ix. **QUESTIONS**: Please contact the UNZABREC on Telephone No. +260977925304 or by e-mail on unzarec@unza.zm.

x. **OTHER**: Please be reminded to send in copies of your research findings/results for our records. You are also required to submit electronic copies of your publications in peer-reviewed journals that may emanate from this study. Use the online portal: unza.rhinno.net for further submissions.

Yours sincerely,



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REPUBLIC OF BOTSWANA

MINISTRY OF HEALTH
PRIVATE BAG 0038
GABORONE

REFERENCE NO: HPRD: 6/14/1 **16th October 2024**

Health Research and Development Committee

Notification of IRB Review: **New application**

Tapiwa Bojosi
P O Box 754
Moshupa

Dear Tapiwa Bojosi

PROTOCOL TITLE: EXPERIENCES OF ESCORT NURSES ON WAITING TIMES WITHIN AN EMERGENCY DEPARTMENT AT PRINCESS MARINA HOSPITAL IN GABORONE, BOTSWANA VERSION 01, DATED: 19/09/2024)

Type:	Expedited Review
Review Date:	15th October 2024
Approval Date:	16th October 2024
Effective Date:	16th October 2024
Expiration Date:	15th October 2025
Risk Determination:	Minimal risk

Thank you for submitting new application for the above referenced protocol. **The permission is granted to conduct the study. Approval is for academic fulfillment only.**

This permit does not however give you authority to collect data from the selected sites without prior approval from the management. Consent from the identified individuals should be obtained where applicable.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Health Research and Development Division in the Ministry of Health for consideration and approval.

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research, Ministry of Health within 3 months of completion of the study. Approval is for academic fulfilment only. Copies should also be submitted to all other relevant authorities.

Continuing Review

In order to continue work on this study (including data analysis) beyond the expiry date, submit a Continuing Review Form for Approval at least three (3) months prior

to the protocol's expiration date. The Continuing Review Form can be obtained from the Health Research Division Office (HRDD), Office No. 7A.7 or Ministry of Health website: www.moh.gov.bw or can be requested via e-mail from HRDD office, e-mail address: hhealthresearch@govbots.onmicrosoft.com. As a courtesy, the HRDD will send you a reminder email about eight (8) weeks before the lapse date, but failure to receive it does not affect your responsibility to submit a timely Continuing Report form.

Amendments

During the approval period, if you propose any change to the protocol such as its funding source, recruiting materials, or consent documents, you must seek HRDC approval before implementing it. Please summarize the proposed change and the rationale for it in the amendment form available from the Health Research Division Office (HRDD), Office No. 7A 7 or Ministry of Health website: www.moh.gov.bw or can be requested via e- mail from HRDD Office, e-mail address: hhealthresearch@govbots.onmicrosoft.com. In addition submit a copy of an updated version of your original protocol application showing all proposed changes in bold or "track changes".

Reporting

Other events which must be reported promptly in writing to the HRDC include:
- Suspension or termination of the protocol by you or the grantor
- Unexpected problems involving risk to subjects or others
- Adverse events, including unanticipated or anticipated but severe physical harm to subjects.

If you have any questions please do not hesitate to contact Mr. Abia Sebaka at asebaka@gov.bw, Tel +267-3632754 and Mr. K. Motlhanka at kgmmotlhanka@gov.bw, Tel +267-3632751.

Thank you for your cooperation and your commitment to the protection of human participants in research.

Yours Sincerely

Ms. Abia Sebaka
for/Permanent Secretary

MINISTRY OF HEALTH
RESEARCH DIVISION
16 OCT 2024
P/BAG 0038, GABORONE
HEALTH POLICY RESEARCH & DEVELOPMENT

TELEPHONE: 3621400
FAX: 3973776
PLOT NO. 1836
HOSPITAL WAY

REPUBLIC OF BOTSWANA

PRINCESS MARINA HOSPITAL
P. O. BOX 258
GABORONE
BOTSWANA

RE: PMH 2/11AII (534)

06th November 2024

TAPIWA BOJOSI
P. O Box 754
MOSHUPA

Dear TAPIWA BOJOSI

RESEARCH APPROVAL: Experiences of Escort Nurses on Waiting Times Within an Emergency Department at Princess Marina Hospital in Gaborone, Botswana

This letter is to inform you that Princess Marina Hospital Ethics and Research Committee has reviewed your and **approved** your above-mentioned protocol. The approval period is 07th November 2024–07th November 2025.

This approval is subject to compliance with the following requirements:

1. All changes of amendments, deviations, violations of your protocol are to be submitted for review again and approval by Princess Marina Hospital Ethics and Research Committee before implementation.
2. Only approved documents like informed consents, questionnaires and materials submitted with the protocol will be used.
3. Researcher must not change any aspect of the research without permission from the Princess Marina Hospital Institutional Research Board.
4. Any unforeseen circumstances including termination of the study must be reported to Princess Marina Hospital Research Board immediately.
5. The Princess Marina Hospital Research Board must have access to the on-going study anytime for auditing purposes.
6. After completion of the study, the researcher must submit a hard copy and soft copy of protocol to Princess Marina Hospital Ethics and Research Board.

Wish you prodigious triumph in your study.

Yours faithfully

Akanyang Tshiamo
Secretary PMH REC
For Hospital Superintendent

Vision: *A Model of Excellence in Quality Health Services.*
Values: *Botho, Equity, Timeliness, Customer Focus, Teamwork.*