EXPERIENCES OF ICU NURSES ON INTERPROFESSIONAL COLLABORATION AT SCOTTISH LIVINGSTONE HOSPITAL, BOTSWANA

By

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DECLARATION

I, Nametso B. Matlhodi, declare that this dissertation is my original work and has not been submitted for any degree, diploma, or qualification at this or any other university. Any sources used have been properly acknowledged, and any incorporated published or prior work has been clearly indicated and referenced.

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ABSTRACT

This study explored the experiences of intensive care unit nurses regarding interprofessional collaboration at Scottish Livingstone Hospital in Molepolole, Botswana. Using a descriptive phenomenological design, in-depth interviews were conducted with ten purposively selected Intensive Care Unit nurses. Thematic analysis revealed four key themes: nurses' lived experiences of interprofessional collaboration, facilitators of collaboration, barriers to collaboration, and coping strategies alongside recommendations for improvement. While nurses demonstrated a shared conceptual understanding of collaboration as a team-based, patient-centered approach, they reported being routinely excluded from decision-making processes, experiencing poor communication, and facing professional disrespect from other disciplines. Barriers, including hierarchical power dynamics, communication gaps, and staffing shortages, undermined effective teamwork. However, positive factors such as mutual respect, shared goals, Open Communication Channels, and inclusive ward rounds facilitated collaboration. To cope, nurses relied on emotional resilience, spiritual faith, peer bonding, persistent follow-ups, and documentation of incidents. Participants strongly recommended structured interprofessional education, clearer role definitions, inclusive leadership, and team-building initiatives to improve collaboration. The findings highlight the complex, often strained nature of interprofessional collaboration in resource-limited Intensive Care Units and offer practical insights for improving teamwork, professional relationships, and ultimately, patient care in Botswana.

Keywords: *Experience of an ICU nurse, Interprofessional Collaboration, Scottish Livingstone Hospital, ICU Nurses.*

DEDICATION

I wholeheartedly dedicate this dissertation to my beloved parents, Onyaditseng Satee and Joseph M. Nkwate, whose unwavering love and support have been my strength throughout this journey. To my other mother, Betty Matlhodi, for your constant encouragement and care, I am deeply grateful.

To my late grandparents, Molathehi and Mmakwena Matlhodi, your love and wisdom continue to inspire me.

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List Of Abbreviations And Acronyms

BACCN	-	British Association of Critical Care Nurses
CPD	-	Continuous Professional Development
CNS	-	Certified Nurse Specialist
IPC	-	Inter-Professional Collaboration
IPCP	-	Inter-professional Collaborative Practice
ICU	-	Intensive Care Unit
MOH	-	Ministry of Health
NHRA	-	National Health Research Authority
NIH	-	National Institute of Health
SDG	-	Sustainable Development Goals
SLH	-	Scottish Livingstone Hospital
UNZA	-	University of Zambia
UNZABREC	-	University of Zambia Biomedical Research Ethics Committee
UNZA SON	-	University of Zambia School of Nursing
USA	-	United States of America
WHO	-	World Health Organization
WHPA	-	World Health Professions Alliance

CHAPTER 1: INTRODUCTION

1.1 Introduction

Effective interprofessional collaboration among critical care professionals is vital to ensuring the delivery of safe and high-quality care to critically ill patients, who are often at risk of sudden deterioration or death due to the severity of their conditions (Donovan et al., 2018; Xyrichis and Rose, 2024) . This collaborative approach involves a dynamic teamwork process, where healthcare professionals from various disciplines actively engage with one another, demonstrating assertiveness and cooperation, to integrate their specialized knowledge, communicate effectively, and make joint decisions to achieve shared patient care goals (Permanasari and Oktamianti, 2023; Ghattas and Abdou, 2025). As primary caregivers in critical care settings, nurses play a pivotal role in facilitating this collaboration, as patients in these environments require complex and highly specialized care. Spending the most time with patients and serving as their key advocates, nurses act as central links among various healthcare professionals to ensure coordinated and responsive care (Hassan Amer Mousa Alqarny et al., 2024). However, this position also places them at a higher risk of being caught in the middle of clinical decision-making, particularly when conflicts arise among different professional groups (Lesley Jones et al., 2019). Navigating such boundaries can be challenging and may hinder the delivery of optimal patient care, leading to emotional and professional strain on nurses. Therefore, understanding these challenges from the perspective of nurses is essential to strengthening collaborative practices and ultimately improving patient outcomes.

This chapter presents background information on the experiences of Intensive Care Unit (ICU) nurses regarding interprofessional collaboration at Scottish Livingstone Hospital (SLH), Molepolole, Botswana. It will cover the background of the study, problem statement, study justification, research question, objectives, and operational definitions.

1.2 Background Information

Interprofessional collaboration (IPC) is a cornerstone of high-quality patient care, particularly in Intensive Care Units (ICUs), where patients require complex, coordinated care from diverse healthcare professionals (Xyrichis and Rose, 2024). Effective IPC necessitates open communication, mutual respect, clearly defined professional roles, collaborative decision-making, and shared accountability among team members (Reeves et al., 2017; McLaney et al., 2022). In well-functioning IPC, professionals such as nurses, physicians, physiotherapists, dietitians, and pharmacists collaborate seamlessly to formulate, implement, and adjust patient care plans. Structured tools like interdisciplinary rounds, standardized communication protocols (like SBAR—Situation, Background, Assessment, Recommendation), and joint training sessions have been shown to strengthen IPC, reduce patient errors, and enhance team performance (Donovan et al., 2018).

Globally, IPC models emphasize flattening hierarchical structures to promote shared leadership and valuing the contributions of all health professionals equally (WHO, 2019; WHPA, 2019). However, despite international efforts, barriers such as communication failures, role ambiguity, and power imbalances impede collaboration, especially in high-pressure environments like ICUs (Vaseghi, Yarmohammadian and Raeisi, 2022). Regionally, in the context of South Africa specifically, a recent systematic study (Mohamed, Peck and Senekal, 2024) was conducted on perceptions of interprofessional collaboration and key findings suggested barriers to interprofessional collaborative practice (IPCP) in South Africa to be inadequate resources, poor infrastructure, high patient turnover, and staff shortages. The study concluded that team dynamics suffer from hierarchical structures, poor communication, and a lack of role clarity.

In Botswana, the Ministry of Health and Wellness has recognized the importance of improving collaborative practices through strategic initiatives, including the adoption of multidisciplinary team approaches, structured referral systems, and the encouragement of continuous professional development (CPD) for healthcare workers (MOH, 2020). The Integrated Health Service Plan (IHSP) and related protocols emphasize the need for coordinated care across cadres, where nurses may escalate care to doctors, doctors consult specialists, and care transitions are ideally marked by clear handovers and professional communication.

Interprofessional education and team-based care are also being promoted. However, despite these policy frameworks, implementation remains uneven, particularly at district hospitals like Scottish Livingstone Hospital (SLH), where issues such as critical staff shortages, limited access to specialists, transport challenges for referrals, and unclear interprofessional role expectations persist (Boitshwarelo, Koen and Rakhudu, 2020; Sabone et al., 2020). These barriers continue to affect the effectiveness of interprofessional collaboration, making it essential to examine the lived experiences of frontline staff.

Therefore, understanding the lived experiences of ICU nurses at SLH is crucial for identifying systemic gaps and informing interventions to strengthen interprofessional collaboration in resource-limited critical care environments.

1.3 Problem Statement

Effective interprofessional collaboration (IPC) among healthcare professionals is critical for optimal patient outcomes in Intensive Care Units (ICUs). In high-intensity settings like the ICU, collaborative teamwork between nurses, physicians, and allied health workers ensures timely, coordinated, and high-quality patient care (Xyrichis and Rose, 2024; Donovan et al., 2018). However, in many resource-limited settings, including Botswana, maintaining effective IPC remains a significant challenge, particularly in nurse-led ICUs (Sabone et al., 2020).

At Scottish Livingstone Hospital (SLH) in Molepolole, the ICU operates with limited staffing, scarce specialized personnel, and significant resource constraints. The unit is primarily staffed by ICU nurses, many of whom lack formal critical care specialization, and it is supported by a small team of visiting physicians and allied health professionals (Statistics Botswana, 2020). These circumstances create vulnerabilities in collaboration, communication, and role clarity, exacerbating risks to patient care and contributing to professional burnout and job dissatisfaction among nurses (Vaseghi, Yarmohammadian, and Raeisi, 2022; WHO, 2023). Despite the recognized importance of IPC in critical care, there is limited research focusing specifically on the experiences of ICU nurses within Botswana's district hospital settings (Sabone et al., 2020).

Understanding ICU nurses' experiences related to interprofessional collaboration is crucial for identifying systemic barriers, exploring coping mechanisms, and proposing strategies to enhance teamwork in resource-limited environments. Addressing this gap could improve both patient outcomes and the work environment for healthcare providers at SLH and similar institutions (WHPA, 2019).

1.4 Study Justification

Interprofessional collaboration (IPC) is globally recognized as a key driver of safe, efficient, and patient-centered care, particularly in complex environments such as Intensive Care Units (ICUs), where timely and coordinated decision-making is critical (Lee et al., 2019; Xyrichis & Rose, 2024). Effective IPC has been associated with reduced medical errors, shorter hospital stays, and improved patient satisfaction and team efficiency (Davidson et al., 2022). Despite this, collaborative practice is often compromised by power imbalances, poor communication, lack of role clarity, and systemic constraints. These factors are particularly pronounced in resource-limited healthcare settings (Reeves et al., 2017; Vaseghi, Yarmohammadian & Raeisi, 2022; WHO, 2023).

Botswana's Ministry of Health and Wellness has recognized the importance of interprofessional collaboration by promoting multidisciplinary care models, structured referral systems, and team-based approaches in its strategic health frameworks (MOH, 2022). Despite these efforts, implementation at district hospitals like Scottish Livingstone Hospital (SLH) remains inconsistent due to workforce shortages, transport delays to referral centers, and limited availability of specialist personnel, especially in ICUs. Despite the policy intent, these realities often hinder seamless collaboration (Sabone et al., 2020).

Research on IPC in Botswana is still limited and mainly general, with few studies investigating the lived experiences of ICU nurses, who are the frontline professionals often required to coordinate patient care under pressure and with minimal resources. Thus, this study aims to address a significant knowledge gap by exploring how ICU nurses at SLH experience interprofessional collaboration, what barriers they face, and how they navigate collaborative care in a resource-constrained environment.

The findings of this study will provide locally relevant insights that may guide hospital administrators, nurse educators, and policymakers in designing interventions to enhance teamwork in critical care settings. Additionally, the study will contribute to scholarly literature by advancing the understanding of IPC dynamics in low- and middle-income countries (LMICs), a context that remains underrepresented in global research.

Importantly, the study will also align with and support progress toward the United Nations Sustainable Development Goals (SDGs)**,** specifically SDG 3: Good Health and Well-being, by promoting safer, more coordinated care practices, and SDG 17: Partnerships for the Goals**,** by encouraging strengthened interprofessional partnerships within the health system. The insights from this research will inform context-specific strategies to improve collaboration, ultimately contributing to Botswana's more responsive and resilient healthcare system.

1.5 Research Question

What are the experiences of ICU nurses regarding interprofessional collaboration at Scottish Livingstone Hospital in Molepolole, Botswana?

1.6 Research objectives

1.6.1 General Objective

To explore the experiences of ICU nurses regarding interprofessional collaboration at SLH in Molepolole, Botswana.

1.6.2 Specific Objectives

a. To describe the facilitators of interprofessional collaboration in patient care delivery among ICU nurses at Scottish Livingstone Hospital, Molepolole, Botswana.
b. To determine the barriers to interprofessional collaboration in patient care delivery among ICU nurses at Scottish Livingstone Hospital, Molepolole, Botswana.
c. To identify the coping strategies ICU nurses employ to navigate challenges related to interprofessional collaboration at Scottish Livingstone Hospital, Molepolole, Botswana.

1.7 Conceptual Definition of Terms

Interprofessional collaboration in healthcare refers to a patient-centered approach in which two or more professionals from different disciplines interact in a coordinated and integrated manner in a complex and evolving environment to improve the clinical care of patients and their families. (Verd-Aulí, Maqueda-Palau and Miró-Bonet, 2021)

Experiences of ICU Nurses: This concept broadly refers to the subjective and objective realities nurses encounter while working in an Intensive Care Unit (ICU). These experiences encompass a range of factors, including their day-to-day interactions with patients, families, and other healthcare professionals, the emotional and psychological challenges they face, and their professional development within the high-stakes, high-pressure environment of the ICU (Morton and Thurman, 2024).

Scottish Livingstone Hospital (SLH): Also known as Molepolole Hospital, is a government-run district hospital located in Molepolole, Botswana, 60km from Gaborone (The Capital City) (MOH, 2022).

ICU Nurses: ICU Nurses, commonly referred to as Critical Care Nurses, are registered nurses who have received specialized training to provide care in intensive care settings (CareRev, 2023).

1.8 Operational Definitions

Interprofessional Collaboration: In this study, interprofessional collaboration refers to the coordinated effort among ICU nurses, physicians, physiotherapists, dieticians, and other healthcare professionals at Scottish Livingstone Hospital to work together effectively in delivering patient care. It includes sharing knowledge, responsibilities, and decision-making to ensure high-quality outcomes for patients in the ICU.

Experiences of nurses: The experiences of ICU nurses in this context refer to the personal and professional encounters, perceptions, and challenges that ICU nurses at Scottish Livingstone Hospital have faced in their interactions with other healthcare professionals. These experiences encompass both positive and negative aspects of collaboration, communication, and teamwork within the interdisciplinary team in the ICU setting.

Scottish Livingstone Hospital (SLH): A healthcare facility (District hospital) located in Molepolole Village, Botswana, that provides critical care services, including an intensive care unit (ICU), where interdisciplinary collaboration among healthcare professionals is essential for optimal patient outcomes.

ICU Nurses: These are nurses working in the ICU at SLH.

1.9 Conclusion

This chapter emphasizes the significance of interprofessional collaboration (IPC) in intensive care settings, where critically ill patients rely on coordinated efforts from diverse professionals, such as ICU nurses, physicians, and allied health workers. Several scholars support the view that effective IPC enhances patient outcomes, reduces hospital stays, minimizes clinical errors, and facilitates timely and safer decision-making (Xyrichis & Rose, 2024; McLaney et al., 2022; Donovan et al., 2018). However, challenges such as communication breakdowns, role ambiguity, and specialized staff shortages persist in high-income and resource-constrained contexts (Reeves et al., 2017; Vaseghi, Yarmohammadian & Raeisi, 2022). In Botswana, the Ministry of Health and Wellness has taken steps to encourage collaborative healthcare practices through multidisciplinary approaches, referral systems, and continuous professional development (MOH, 2022). Yet, as observed in district hospitals like Scottish Livingstone Hospital in Molepolole, practical gaps remain due to staffing constraints, logistical hurdles, and inadequate access to specialists, especially in rural settings (Sabone *et al.*, 2020). This study aims to explore the experiences of ICU nurses at SLH regarding IPC by describing the facilitators of interprofessional collaboration, determining the barriers to interprofessional collaboration, and identifying the coping strategies ICU nurses employ to navigate challenges related to interprofessional collaboration at Scottish Livingstone Hospital, Molepolole, Botswana.

. Findings from this study are anticipated to inform practice, support national healthcare strategies, and contribute toward achieving Sustainable Development Goal 3, which focuses on ensuring healthy lives and promoting well-being for all at all ages (World Health Statistics, 2024).

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter provides a comprehensive review of existing literature to contextualize and critically examine ICU nurses' experiences with interprofessional collaboration (IPC), focusing on international, regional, and local perspectives. To support this review with credible and relevant evidence, an extensive literature search was conducted to identify scholarly sources that directly address the topic.

The search process spanned several reputable academic databases, including PubMed**,** CINAHL (Cumulative Index to Nursing and Allied Health Literature)**,** Scopus**,** Google Scholar, and ScienceDirect, aiming to capture diverse perspectives from 2019 to 2025. Keywords such as *"interprofessional collaboration," "ICU nurses," "intensive care units," "multidisciplinary teamwork," "nursing experiences," "sub-Saharan Africa," "Botswana,"* and *"barriers to collaboration"* were used in various combinations. Boolean operators such as AND and OR were applied strategically to broaden or narrow search results and ensure relevance to the study focus.

Studies were selected based on their relevance to interprofessional collaboration involving ICU nurses and at least one other professional group. Both qualitative and quantitative research exploring experiences, barriers, facilitators, or coping strategies were considered, with inclusion limited to English-language publications. Emphasis was placed on peer-reviewed journal articles, systematic reviews, and empirical studies to ensure academic rigor, while opinion pieces and non-peer-reviewed sources were excluded. This selective yet inclusive approach allowed for the identification of converging and diverging perspectives across global, regional, and local contexts, providing a balanced foundation for understanding interprofessional collaboration in ICU settings, particularly within Botswana's healthcare landscape.

2.2 Overview of Interprofessional Collaboration in Nurse Led ICUs

Interprofessional collaboration (IPC) in healthcare refers to the active and ongoing partnership among healthcare professionals from different disciplines who work together with patients, families, and communities to achieve the highest quality of care.

IPC is more than simply working alongside one another; it involves shared decision-making, mutual respect, clear communication, and an understanding of each member's unique role within the healthcare team (WHO, 2023; Frenk et al., 2022). This collaborative model becomes especially crucial in high-intensity environments like the Intensive Care Unit (ICU), where care is complex, urgent, and often involves rapidly changing clinical decisions.

The modern healthcare environment demands a team-based approach where physicians, nurses, pharmacists, respiratory therapists, dietitians, and other allied health professionals contribute their expertise in a coordinated manner. When done effectively, IPC enhances patient safety, improves health outcomes, reduces medical errors, and leads to more efficient use of healthcare resources (Reeves et al., 2017; Mistri, Badge and Shahu, 2023). In critical care, however, some scholars have linked collaboration to reduced patient mortality, shorter ICU stays, and better staff satisfaction and retention (Folkman, Tveit and Sverdrup, 2019; Moullet et al., 2020). Furthermore, IPC has also been perceived to foster a culture of continuous learning and team accountability, both of which are key in high-pressure care environments. This also aligns with a book (Al-Worafi, 2023) where the author highlighted how interprofessional collaboration in healthcare plays a vital role in delivering holistic, patient-centered care and effectively responding to the diverse and often complex health needs of individuals and communities.

Additionally, several scholars have emphasized that IPC must be intentional and structured, supported by institutional policies, training programs, and leadership that prioritizes teamwork (Goldman et al., 2023; Lee et al., 2019). Effective IPC requires interprofessional education (IPE), where students from different healthcare professions learn together to cultivate mutual understanding and collaborative competencies early in their careers (WHO, 2019).

In this context, the ICU provides a rich but demanding environment for observing how collaboration plays out in real-time, making it a critical area for research into professional relationships, clinical outcomes, and organizational dynamics.

2.3 The Significance of Interprofessional Collaboration

Interprofessional collaboration (IPC) is acknowledged as a cornerstone of effective healthcare delivery. Several studies underscore the importance of interprofessional collaboration, stating that it is crucial for optimizing patient healthcare outcomes and delivering safe and high-quality care, with a culture of caring being fundamental as it fosters a supportive atmosphere for team members (Reeves et al., 2017; Fukuda, Sakurai and Kashiwagi, 2020; Davidson et al., 2022; Matusov et al., 2022; Vaseghi, Yarmohammadian and Raeisi, 2022). Xyrichis and Rose, (2024) further argue that power-sharing is crucial for successful IPC in ICU settings. Their systematic review underscores the need for ongoing research to cultivate a culture of mutual respect and shared decision-making. Similarly, for Donovan et al. (2018), their systematic study on "Interprofessional Care and Teamwork in the ICU" highlighted the importance of IPC in critical care, stressing how each team member provides unique expertise and perspectives, crucial for addressing diverse patient and family needs in the ICU.

A World Health Professions Alliance report corroborates this, affirming that effective IPC has many benefits, including a comprehensive, coordinated, and responsive health system, assuring effective resource utilization (WHPA, 2019). The organization further highlights other benefits like lowering disability by addressing the entire disease cycle from prevention to rehabilitation and improving job satisfaction among health professionals by lowering stress and burnout (WHPA, 2019). In South Africa, a qualitative phenomenological descriptive study on interprofessional collaborations by Waggie and Arends, (2021), which utilized a purposive sampling of 14 healthcare professionals concluded that despite the familiarity of facilitators and barriers to successful interprofessional collaboration by healthcare professionals, there is a need for interprofessional capacity building. Additionally, another phenomenological qualitative descriptive local study utilized purposive sampling to explore the everyday ethical challenge of nurse-physician collaboration. It concluded that collaboration between physicians and nurses is critical for optimizing patient health outcomes (Sabone et al., 2020).

Despite its significant contribution to quality patient care, interprofessional collaboration on the contrary according to (Mushonga Buhle and Dube- Mawerewere, 2017) can expose one to constant criticism, unreasonable demands from others, spiteful gossip, and disputes that cause moral pain all which could ultimately be potential precursors to burnout. This was a key finding in their quantitative descriptive study, which utilized a questionnaire of 40 participants in Botswana. It has been determined that ICU nurses have the potential to build or bring each other down due to disagreements. Similar issues could arise in collaborative practices with other healthcare team members, which could pose a risk (Mushonga Buhle and Dube- Mawerewere, 2017).

2.4 Barriers to successful Interprofessional Collaboration

Despite growing global emphasis on the importance of interprofessional collaboration (IPC) in enhancing patient outcomes, numerous barriers undermine its effective implementation, particularly within intensive care settings. This section critically examines the empirical literature on such barriers, highlighting key findings, methodological limitations, and how the current study seeks to address identified gaps, particularly within the context of Scottish Livingstone Hospital (SLH) in Botswana.

Power imbalances and rigid hierarchies often act as significant barriers to collaborative practice. Xyrichis and Rose (2024), through a thematic review of ICU team dynamics, observed that hierarchical medical structures frequently marginalize the contributions of non-physician staff, particularly nurses. Similarly, Donovan et al. (2018) emphasized how unequal power distribution in clinical decision-making discourages open dialogue, especially among junior staff and nurses. While these studies robustly highlight the impact of hierarchy, they are primarily based in high-income countries with comparatively better staff distribution, potentially limiting the applicability of their conclusions to low-resource settings like SLH. In contrast, the current study is situated in a district hospital with significant staffing shortages and limited specialist availability, providing contextual insight into how hierarchical dynamics manifest in constrained environments.

Communication breakdowns are another recurring barrier in the literature. Miscommunication or lack of timely information sharing was identified by Zwarenstein et al. (2019) as a core factor contributing to medical errors and reduced team cohesion. Although this finding is widely supported, most existing studies focus on communication tools and systems rather than exploring interpersonal dimensions of communication breakdown, such as trust and mutual understanding. By focusing on nurses' lived experiences, the present study delves deeper into these interpersonal factors within the unique cultural and institutional setting of a Botswanan district hospital ICU.

The diversity of professional backgrounds and poorly defined roles also hinders effective IPC. Weller et al. (2020) reported that overlapping duties and ambiguous scopes of practice frequently lead to interprofessional tension and reduced efficiency. However, this study emphasized emergency room settings and may not adequately reflect the complexities of ICU collaboration. Moreover, it did not offer insight into how resource limitations exacerbate role ambiguity. This is a gap that the current study addresses by examining how ICU nurses at SLH navigate unclear role boundaries amid limited staffing and specialist shortages.

Emotional and personality-related barriers also emerge in the literature. In a qualitative study conducted in Singapore, Kowitlawakul et. al. (2021) found that nurses' shyness and fear of criticism limited their active participation in interdisciplinary rounds. While this study offers valuable psychological insight, its cultural setting differs significantly from Botswana's. In contrast, the current research captures culturally specific expressions of emotional and professional barriers experienced by ICU nurses in Molepolole, adding geographic and cultural diversity to the discourse.

Importantly, systemic and organizational constraints are often overlooked or underexplored in mainstream IPC literature. In this regard, Sabone et al. (2021) offer a regionally relevant perspective. Their study in Botswana examined ethical challenges in interdisciplinary collaboration within both clinical and educational contexts. Participants reported challenges related to work environment conditions, differing values regarding nurse-doctor collaboration, resource availability, and suggestions for improving team interactions. While this study provides valuable insights into the local context, its primary focus was on ethical dilemmas rather than practical day-to-day collaborative processes in specialized units like ICUs.

Moreover, its inclusion of a broad range of clinical settings may dilute specific insights relevant to intensive care environments. The current study addresses this limitation by focusing exclusively on the experiences of ICU nurses within a single referral hospital, thereby contributing a more focused and nuanced understanding of interprofessional challenges in critical care.

Other studies also identified additional emotional and psychological barriers, such as moral distress, bullying, and lack of psychological safety. Lansater et al. (2021) documented that persistent incivility and lack of support often push nurses to disengage or exit their roles. While informative, their large-scale quantitative approach did not capture the nuanced emotional responses of frontline ICU staff. By employing a qualitative design, the current study allows participants to voice their lived experiences in-depth, revealing underlying emotional and institutional dynamics that broader surveys may overlook. Finally, the literature often underrepresents settings with severe resource constraints, a gap the current study addresses.

In summary, while prior studies have extensively catalogued barriers to interprofessional collaboration, many are geographically or contextually limited. Few have explored how these barriers intersect with Botswana's institutional resource constraints and frontline nursing perspectives. This study fills that gap and provides actionable insights by exploring how ICU nurses experience, internalize, and attempt to navigate these barriers within the local healthcare system. In doing so, it contributes to theoretical understanding and practical strategies for strengthening interprofessional collaboration in under-resourced critical care environments.

2.5 Facilitators of Interprofessional Collaboration

Effective interprofessional collaboration (IPC) is essential for patient safety and continuity of care and is strengthened by several facilitating factors that support teamwork and communication in complex clinical settings such as intensive care units (ICUs). Waggie and Arends (2021), in their qualitative descriptive exploratory study conducted in a South African tertiary hospital, identified key facilitators of IPC, including increased human capital, mutual respect, relationship building, and the use of communication technologies. Their purposive sampling of 14 participants through focus group discussions revealed that improved staff availability can reduce workload strain and enhance the time allocated for collaboration.

Moreover, cultivating mutual respect and fostering professional relationships were noted to improve trust and effectiveness among team members. The integration of advanced communication technologies was seen to streamline information flow and coordination, improving patient outcomes. However, a limitation of this study is its focus on a single institution, which may limit generalizability across diverse healthcare contexts. This highlights the need for research in other regions, such as Botswana, particularly in resource-constrained district hospitals like Scottish Livingstone Hospital (SLH), to understand how these facilitators play out in different systemic and cultural environments.

A contrary perspective by Perron et al (2022) in their systematic review emphasized that smaller team sizes in rural and remote settings enhance IPC by fostering closer proximity and promoting both formal and informal communication. They also found that such teams exhibit flattened hierarchies and shared leadership, which encourages team cohesion. Their work critically draws attention to the fact that the "ideal" team size for collaboration may not be universal but context-dependent. Nevertheless, while the review synthesizes broad insights, it does not delve into the dynamics of IPC in urban or district-level public hospitals, an area the current study aims to explore. Furthermore, their review focuses on team structures but pays less attention to collaboration's interpersonal and emotional aspects, which can also be powerful facilitators. Wei et al. (2020) expanded the discussion by examining the role of a caring work culture in promoting IPC. Their qualitative descriptive study of 36 healthcare professionals in the United States identified a "culture of caring" as central to successful collaboration. This culture, underpinned by mutual support, empathy, and psychological safety, was seen to enhance communication and teamwork. The findings are reinforced by the World Health Professions Alliance (WHPA, 2019), which asserts that mutual respect, trust, and recognition of each team member's competence are core requirements for effective IPC. While Wei et al.'s study captures the affective and cultural enablers of collaboration, its U.S.-based setting might not reflect the realities of healthcare environments in low- and middle-income countries, where workforce shortages and resource limitations may undermine caring cultures. Exploring this dynamic within the Botswana context offers an opportunity to assess whether similar facilitators are present or how they manifest differently under systemic constraints.

Additionally, Makowsky et al. (2019) emphasize the importance of clear role definitions and mutual respect, particularly in integrating pharmacists into healthcare teams, principles that apply broadly across interprofessional settings. Although slightly older, these insights remain relevant and align with the Sunnybrook Framework for Interprofessional Team Collaboration, which advocates for clearly defined roles, supportive environments, and effective communication (McLaney et al., 2022). However, this body of work tends to emphasize structural and policy-level interventions. At the same time, the interpersonal experiences of frontline ICU staff remain less explored, an aspect that the current study seeks to address directly.

In conclusion, while existing literature identifies various facilitators of IPC, including staffing levels, respect, communication, team size, and work culture, many studies are geographically limited or focused on specific disciplines or settings. By investigating the experiences of ICU nurses at SLH in Botswana, the present study aims to fill these gaps by providing contextualized insights into the facilitators that support or hinder collaboration in a district hospital setting facing staff shortages and specialist constraints. This will build on existing knowledge and contribute regionally relevant data that may inform future strategies for enhancing IPC in similar contexts.

2.6 Coping strategies ICU nurses employ to navigate challenges related to Interprofessional Collaboration

Coping with barriers to interprofessional collaboration in intensive care unit (ICU) settings is a proactive endeavor. ICU nurses, operating within various contexts, devise practical, emotional, and professional strategies to navigate the complexities of team dynamics effectively. However, the effectiveness of these strategies is often constrained by systemic limitations, cultural norms, and the intricacies of interdisciplinary relationships. Although prior research has illuminated these coping mechanisms, much of the existing literature is limited by geographic scope, professional focus, or the degree to which it explores nurses' agency. This study seeks to overcome these limitations by investigating the context-specific coping strategies employed by ICU nurses at Scottish Livingstone Hospital in Botswana, a context that remains underrepresented in the current academic discourse.

The significance of clearly defined roles and mutual respect in promoting interprofessional collaboration is underscored by Xyrichis and Rose (2024) on an international scale. Their study effectively connects structural clarity with the facilitation of teamwork. However, it is noteworthy that their research predominantly concentrates on team dynamics within high-income environments characterized by substantial staffing and comprehensive policy frameworks, which constrains its relevance to under-resourced contexts such as SLH. Furthermore, while the authors acknowledge the emergence of informal strategies in instances where collaboration diminishes, they do not conduct an in-depth investigation into these strategies. The current study seeks to address this gap by prioritizing the exploration of coping strategies rather than solely focusing on collaboration outcomes within a low-resource ICU setting.

Donovan (2018) provides valuable insights into emotional labor and peer support as core coping strategies, particularly in contexts where nurses experience professional marginalization. The researcher's work is commendable for emphasizing the affective dimensions of collaboration and recognizing the emotional burdens that ICU nurses endure. However, it is essential to acknowledge that the findings are derived from a mixed healthcare team, which does not specifically isolate the experiences of nurses. This limitation diminishes the understanding of the unique coping mechanisms intrinsic to the nursing profession. The present study narrows this focus by exclusively examining the perspectives of ICU nurses, thus offering a more profound comprehension of how these professionals navigate and adapt to the obstacles encountered in collaborative environments. Wubben et al. (2021) contribute significantly by highlighting leadership as a buffer against collaborative dysfunction. Their work underscores that visible managerial support fosters psychological safety and open communication. A limitation, however, is their predominantly quantitative approach, which, while statistically rigorous, misses the nuance and lived realities of how coping unfolds daily. In contrast, my qualitative study adds value by capturing the richness of individual narratives, revealing the complexity behind coping behaviors and their links to leadership dynamics in resource-strained environments.

The literature is enriched by the contributions of Hubber (2022), who provides ethnographic depth and illustrates how ICU nurses selectively engage with team processes to mitigate conflict or conserve energy, demonstrating a subtle yet pivotal coping mechanism. The strength of this study resides in its nuanced examination of nurse agency.

Nonetheless, its scope is confined to Australian hospitals, which present distinct cultural and professional dynamics compared to Botswana. Furthermore, the discussion does not expand to account for how institutional structures may perpetuate the necessity for such coping mechanisms. This study seeks to address this contextual gap by situating these coping patterns within the unique institutional culture of SLH and investigating how resource scarcity informs behavioral responses.

Nurses frequently employ coping mechanisms that concentrate on nurse-led interventions and patient-centered care, particularly when they are marginalized from higher-level decision-making roles (Hamilton Larsen et al. ,2021). This observation regarding professional isolation as a catalyst for task-oriented coping strategies is indeed illuminating. Nevertheless, their analysis does not extend to an evaluation of the long-term viability of these coping strategies, nor does it consider whether such methods may unwittingly contribute to the ongoing marginalization of nurses. Accordingly, this study seeks to advance the discourse by critically analyzing the enduring implications of these coping mechanisms, thereby questioning whether they foster resilience among nurses or perpetuate systemic inequities within the healthcare system.

The pandemic context introduced new dimensions to coping strategies, as evidenced by Nikbakht Nasrabadi et al. (2022), who documented emotional withdrawal and compartmentalization among ICU nurses during the COVID-19 pandemic. Their work is significant in capturing the psychological toll experienced by frontline nursing staff during times of crisis. However, their focus on the acute phase of the pandemic renders their findings time-bound and crisis-specific. This study extends the understanding of coping mechanisms by examining everyday strategies employed in a non-crisis yet chronically under-resourced setting, thereby providing insight into the enduring nature of such strategies, rather than their episodic occurrence.

Regionally, Sabone (2020) contributes a significant African perspective by elucidating how professional disrespect, power imbalances, and ethical tensions undermine collaboration. While the study acknowledges the presence of structural barriers, it does not examine nurses' emotional or behavioral responses to these challenges. Moreover, the research utilizes a broader sample of healthcare workers, making it difficult to isolate the coping mechanisms employed by ICU nurses. The current study extends Sabone’s work by investigating the responses of ICU nurses in Botswana, specifically focusing on how they address professional tensions, rather than all nurses.

It concentrates on context-specific coping strategies rooted in cultural norms, ethical reasoning, and personal resilience.

In summary, the reviewed studies collectively highlight various coping strategies that ICU nurses adopt, ranging from role reinforcement, informal peer support, emotional regulation, and selective engagement to autonomous nursing practices. Yet, they fall short in three key areas: limited focus on low-resource African settings, insufficient depth in exploring nurses' specific coping behaviors, and inadequate attention to how these strategies interact with systemic constraints. My study fills these gaps by critically exploring the lived coping strategies of ICU nurses within the structural and cultural realities of SLH, offering grounded insights that are both locally relevant and globally informative.

2.7 Conclusion

Interprofessional collaboration (IPC) is a crucial component in delivering quality healthcare, especially in high-stakes environments such as Intensive Care Units (ICUs), where prompt and complex decision-making is essential. IPC involves the coordinated efforts of healthcare professionals across various disciplines, grounded in principles of mutual respect, collaborative decision-making, and effective communication. Research consistently shows that effective IPC correlates with improved patient outcomes, reduced medical errors, and increased staff satisfaction, while also promoting the optimal allocation of resources. However, several obstacles persist, including power disparities, communication challenges, and unclear professional roles, difficulties that are often intensified in resource-limited settings, such as Scottish Livingstone Hospital (SLH) in Botswana. While existing global literature highlights the significance of structural support, interprofessional education, and leadership as critical enablers of IPC, much of this research is based in high-income contexts, thereby limiting its relevance and applicability to facilities like SLH.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter outlines the research approach for exploring ICU nurses' experiences with interprofessional collaboration at Scottish Livingstone Hospital (SLH) in Molepolole, Botswana. It details the study setting, population and sample, data collection and analysis methods, and with the inclusion and exclusion criteria. The chapter also discusses the various measures taken to ensure rigor and trustworthiness, as well as the ethical considerations implemented to uphold participants' rights.

3.2 Study Design

The study utilized a descriptive phenomenological design, a methodological choice grounded in its ability to deeply understand participants' experiences and perceptions (Creswell and Poth, 2018). A qualitative approach is particularly suitable for this research as it allows for the exploration of complex phenomena that cannot be quantified, offering rich, nuanced insights into the lived experiences of ICU nurses.

3.3 Study Setting

This study was conducted at Scottish Livingstone Hospital (SLH), a district referral hospital located in Molepolole, Botswana. SLH was purposefully selected because it serves as one of the major referral centers for the Kweneng District, accommodating a wide range of complex cases from smaller clinics and health posts in the region. The hospital is equipped with a 6-bedded Intensive Care Unit (ICU), making it an important site for observing interprofessional collaboration in a critical care environment. Despite its regional importance, SLH faces challenges such as frequent staff shortages, limited specialist availability, and high patient volumes, all of which impact team dynamics and collaborative practices. These contextual features made SLH an ideal site for exploring how ICU nurses experience and navigate interprofessional collaboration under resource-constrained conditions.

The hospital is government-owned and offers services through various departments, including internal medicine, surgical, pediatric, outpatient, and emergency units. The ICU operates under a multidisciplinary structure, involving general doctors, one intensivist, nurses, and support staff.

However, the ICU has experienced a notable decline in the number of specialist critical care nurses in recent years. Currently, only one intensive care specialist nurse is stationed in the unit, while other nurses rotate in from different departments. Furthermore, some healthcare professionals involved in ICU care are not permanently based in the unit but are consulted when needed. These structural and staffing limitations provide an opportunity to examine interprofessional collaboration in a real-world setting where practical constraints challenge ideal collaboration models.

3.4 Study Population

The study population consisted of all the ICU nurses at Scottish Livingstone Hospital. Their extensive involvement in patient care and collaboration makes their insights crucial for understanding and improving interprofessional teamwork in the ICU (Ntinga and Van Aswegen, 2020).

3.4.1 Target Population

The target population comprised ICU nurses at Scottish Livingstone Hospital (SLH), Molepolole, Botswana, who are directly involved in patient care. These individuals were selected for their firsthand experience with interprofessional collaboration in the critical care setting.

3.4.2 Accessible Population

The accessible population included those ICU nurses from the target group who were available and present during the data collection period and who met the study's inclusion criteria

3.5 Sample Size

Data saturation was used to determine the final sample size for this study. As noted by Saunders et al. (2018), saturation occurs when no new information or themes emerge from successive interviews, indicating sufficient depth of data. Although thirteen ICU nurses were employed at Scottish Livingstone Hospital (SLH) during the study period, only ten were ultimately interviewed. One nurse was on annual leave and therefore unavailable during the data collection window. Another held a managerial position and was excluded, as their administrative role did not involve regular hands-on patient care and thus fell outside the inclusion criteria.

One additional nurse did not take part in the study due to unconfirmed availability throughout the data collection period, and their choice was respected without pressure or follow-up. By the tenth interview, data saturation had been reached, as no new codes or relevant variations were emerging. This is consistent with Creswell and Poth (2018), who observe that phenomenological studies often reach saturation with 5 to 10 participants. The decision to conclude data collection at ten participants was both methodologically justified and ethically sound.

3.6 Sampling Technique

A purposive sampling method was employed to select participants who were most likely to provide rich and relevant insights into interprofessional collaboration in the ICU setting. This approach was appropriate for the study's qualitative phenomenological design, as it allowed for the deliberate selection of nurses directly involved in hands-on patient care at Scottish Livingstone Hospital (SLH). These nurses were chosen for their firsthand experience in interprofessional teamwork, making them well-suited to inform the research objectives. After obtaining ethical clearance, eligible participants were approached while on duty, and those who consented were included. Sampling continued until data saturation was achieved at the tenth interview, when no new information was emerging. This ensured that the sample was both contextually relevant and methodologically justified (Gray, Grove, and Sutherland, 2017).

3.7 Eligibility Criteria

The eligibility criteria of this study were as follows:

3.7.1 Inclusion Criteria

The study included all registered nurses working in the Intensive Care Unit at Scottish Livingstone Hospital (SLH) during the data collection period who had a minimum of six months' experience in the unit and were directly involved in patient care. Eligible participants were considered regardless of their gender, age, or academic qualification, provided they gave informed consent.

3.7.2 Exclusion Criteria

Nurses in administrative positions, like ICU nurse managers, were excluded because they had minimal direct patient care responsibilities. Furthermore, nurses unavailable during the data collection period, such as those on annual, study, or medical leave, were also excluded from participating.

3.8 Data Collection Tools and Techniques

3.8.1 Data Collection Tool

Data were collected through face-to-face, in-depth interviews conducted with ICU nurses at Scottish Livingstone Hospital (SLH), Molepolole, Botswana. Prior to data collection, the researcher engaged the ICU head of department to inform them of the study and to request cooperation in informing eligible nurses. An information sheet and consent form were shared with potential participants to explain the purpose, procedures, and voluntary nature of the study. Nurses were individually approached during their duty shifts, and interview times were arranged during their lunch breaks to minimize disruption to clinical care.

Interviews were conducted in a private, unused office space within the hospital that ensured complete privacy, confidentiality, and comfort for participants. Only the researcher and participant were present during each session. Before the interview began, each participant signed an informed consent form in the presence of a witness. To establish rapport and encourage openness, the researcher introduced herself, restated the study verbally, and maintained a calm, respectful, and nonjudgmental tone throughout each session.

All interviews were conducted in English. A Setswana-translated interview guide was made available for participants who needed clarification or felt more comfortable expressing certain concepts in their native language. Although participants occasionally switched to Setswana during the interviews, they were gently reminded to respond in English to ensure consistency for analysis and transcription. Each interview lasted between 45 minutes and 1 hour and 10 minutes, depending on the participant's engagement and the depth of their responses. Audio recordings were made with participants' consent to ensure accurate transcription and analysis.

The researcher employed bracketing throughout the data collection process to manage personal biases and maintain objectivity. This involved consciously setting aside preconceptions and personal experiences related to interprofessional collaboration, and instead focusing solely on the participants' narratives. A reflective journal was maintained during the process to document personal thoughts and reactions, helping to prevent these from influencing the data collection and interpretation. This approach ensured that the participants' voices remained central to the findings.

3.8.2 Data Collection Technique

Data were collected through face-to-face, in-depth interviews conducted with ICU nurses at Scottish Livingstone Hospital (SLH), Molepolole, Botswana. Before initiating data collection, the researcher obtained ethical clearance and institutional approval. The ICU nurse manager was first approached, informed of the study, and asked to facilitate initial communication with staff. Eligible nurses were notified about the upcoming study through internal communication in the unit and given a brief verbal overview during handovers. This early engagement helped build trust and prepare participants ahead of recruitment.

Participants were selected using a purposive sampling strategy. In collaboration with the nurse manager, the researcher identified nurses who met the inclusion criteria namely, those with more than six months of ICU experience and who were actively involved in direct patient care. Each potential participant was approached individually during their work shifts. They were provided with a participant information sheet and consent form, which explained the purpose of the study, the voluntary nature of participation, and confidentiality assurances. Participation was entirely voluntary, and no nurse was pressured to participate.

Interviews were scheduled during lunch breaks to avoid disrupting patient care. The sessions were held in an unused office within the hospital that offered a quiet and private setting. This space was specifically chosen to ensure confidentiality and comfort. Each session involved only the researcher and the participant. Before each interview, verbal rapport was established to create a calm and open environment. Informed consent was obtained in writing and witnessed before beginning the interview.

Interviews followed a semi-structured format, guided by an interview tool developed by the researcher (see Section 3.8.1). They were conducted in English; however, a Setswana translation of the guide was available for clarification when needed. Although most discussions were conducted in English, participants occasionally code-switched into Setswana. In such cases, they were respectfully reminded to respond in English to ensure consistency for transcription and analysis. Interviews ranged from 45 minutes to 1 hour and 10 minutes, depending on participant engagement and the richness of responses. All sessions were audio-recorded with permission.

Throughout the data collection process, the researcher applied bracketing as a strategy to minimize personal bias. This involved consciously setting aside personal views and assumptions about interprofessional collaboration. A reflective journal was maintained to document thoughts and reactions during fieldwork, allowing the researcher to remain self-aware and avoid influencing participants' responses.

3.9 Trustworthiness

To ensure the rigor and trustworthiness of the data collection tool used, several strategies grounded in qualitative research best practices were implemented, including credibility, dependability, transferability, and confirmability.

3.9.1 Confirmability

Confirmability relates to the extent to which research findings are influenced by the participants rather than the researcher's bias or interest (Zia Ul Haq Kakar et al., 2023; Ahmed, 2024).The researcher practiced bracketing to enhance confirmability by maintaining a reflective journal throughout the study. This journal documented personal assumptions, emotional reactions, and key decisions, including how to interpret emotionally charged responses and navigate the dual roles of researcher and nurse. For example, the researcher meticulously recorded decisions about when to explore discussions further or when to withdraw from sensitive conversations, which were revisited during data analysis. Validating the data involved triangulating various sources, including interview transcripts, field notes, and observed non-verbal cues during sessions. These data points were rigorously cross-checked during thematic coding to ensure multiple forms of evidence backed interpretations. Notably, no secondary data, such as documents or observational notes, were included in this study.

3.9.2 Credibility

Credibility denotes the assurance in the veracity of the data and the interpretations derived therefrom (Creswell and Poth, 2018; Ahmed, 2024). This was cultivated through prolonged engagement with participants via in-depth interviews and active listening techniques that fostered an atmosphere of openness. The credibility of the findings was further enhanced through member checking conducted during the interviews. Participants' responses were paraphrased and reiterated at multiple stages of the interview for verification and clarification purposes. This approach ensured that the interpretations accurately reflected their authentic perspectives. Additionally, participants were allowed to review their transcribed responses immediately after the interviews or during brief follow-up discussions while on duty, ensuring that their viewpoints were accurately captured (Creswell and Poth, 2018).

3.9.3 Dependability

Dependability in research refers to the stability and consistency of data over time. It is a crucial aspect of qualitative research that ensures findings can be trusted and reflect participants' actual experiences. (Norman A. Stahl and James R. King, 2020; Ahmed, 2024). All participants adhered to a standardized interview schedule; however, probing questions were meticulously tailored to individual responses. These probes were intentionally open-ended and relevant to the ongoing discussion, ensuring depth in responses without sacrificing consistency. Prior to data collection, the interview guide underwent rigorous review by academic supervisors and qualitative research consultants to validate its appropriateness. Additionally, peer debriefing was conducted with two MSc Nursing colleagues and one academic supervisor, who critically assessed the evolving data and interpretations for coherence, completeness, and thematic consistency.

3.9.4 Transferability

Transferability refers to the extent to which the findings can be applied to other settings or contexts (Polit & Beck, 2017). This was supported by a thorough description of the research setting, participant selection, and hospital context. Participants were drawn from a diverse team of ICU nurses at SLH, including individuals with varying years of critical care experience (ranging from 6 months to over 10 years), professional qualifications, and shift patterns.

By purposefully selecting nurses with direct, hands-on ICU experience, the study captured a breadth of perspectives relevant to interprofessional collaboration in resource-limited settings. While the findings are context-specific, such detailed contextual information allows readers to determine the relevance of the results to similar environments.

3.10 Management, processing, and, storage of data

Effective data management was instrumental in ensuring the integrity, confidentiality, and traceability of the information gathered during this study. Data handling commenced at the point of collection, wherein all in-depth interviews were audio-recorded with participants' informed consent, utilizing a digital recorder. These recordings captured the participants' narratives in their own lexicon and tone, thereby preserving the richness and authenticity of their experiences. The researcher conducted manual verbatim transcription within 24 hours of each interview to guarantee accuracy. This immediate transcription process served to preserve contextual nuances, including tone, pauses, and emphasis, which might be compromised with delayed transcription. The transcripts underwent thorough cross-checking against the audio recordings to ensure completeness and clarity. Participants' identifying information was expunged during transcription, and each transcript was assigned a coded pseudonym to uphold anonymity and participant confidentiality.

Although transcription software was not employed due to accuracy concerns, ATLAS.ti was subsequently utilized to assist in organizing, coding, and categorizing the qualitative data. The software facilitated the efficient management of recurring codes and themes, thereby supporting a structured and transparent analytic process. As highlighted by Braun and Clarke (2021), such software enhances analytical rigor by enabling researchers to trace coded data back to its original source within the transcripts. Data triangulation was achieved through cross-referencing information from interview transcripts with reflective field notes taken during and immediately following each interview. This methodological approach allowed the researcher to integrate verbal responses with observed behaviors and contextual insights, thereby enhancing the depth and credibility of the analysis.

All electronic data files, inclusive of audio recordings and typed transcripts, were stored on a password-protected laptop accessible solely to the researcher. Backup copies were saved to an encrypted external drive, which was secured in a safe location. Handwritten field notes and printed transcripts were secured within a locked drawer in the researcher's home office.

3.11 Data Analysis

This study used a systematic thematic analysis approach to investigate data from in-depth interviews with ICU nurses at Scottish Livingstone Hospital. Thematic analysis is a well-established qualitative method used to identify, analyze, and summarize patterns or themes within data (Braun & Clarke, 2006). This method was particularly suitable for the research as it enabled a detailed and nuanced exploration of ICU nurses' complex and diverse experiences regarding interprofessional collaboration (IPC). The study followed a structured six-step process that enhanced consistency, thoroughness, and interpretive depth

Step 1: Transcription, Familiarization with the Data, and Selection of Quotations To ensure accuracy and immersion in the data, all interviews were transcribed verbatim shortly after collection. The researcher reviewed each transcript multiple times to familiarize themselves with the material, engaging in active listening and note-taking to identify potential patterns and preliminary insights. During this phase, noteworthy quotations reflecting diverse viewpoints and experiences relevant to the research objectives were highlighted for later use in illustrating themes.

Step 2: Selection of Keywords The transcribed data were meticulously examined to identify recurring terms and expressions representing participants' experiences, emotions, and challenges. Keywords such as "teamwork," "communication gaps," "respect," "role confusion," and "support" encapsulated essential aspects of IPC and served as anchors for deeper analysis. These words, derived from participants' language, guided the coding and theme development processes.

Step 3: Coding A systematic coding process was implemented across the dataset. Short descriptive codes were assigned to transcript segments that captured key features concerning the research questions. For example, when a participant mentioned, "You find yourself making decisions alone," it was coded as "lack of team support."

This coding transformed intricate qualitative data into manageable and interpretable units, laying the groundwork for theme development. Using both inductive (data-driven) and deductive (framework-informed) coding ensured a balanced and thorough analysis.

Step 4: Theme Development

After compiling and refining the initial codes, related codes were grouped to form meaningful categories, developing major themes. These themes were reviewed and refined to ensure coherence, internal consistency, and genuine reflection of the dataset. Each theme was named and defined to represent a central concept derived from the data. Representative interview excerpts were chosen to illustrate each theme, providing depth and contextual understanding. This thematic framework enabled the researcher to organize the findings around the study's primary aim: uncovering the experiences of ICU nurses with interprofessional collaboration.

Step 5: Conceptualization through Interpretation of Keywords, Codes, and Themes

At this stage, interpretation advanced from mere description to conceptualization. The themes and sub-themes were interpreted,alligning with the study objectives. The were also partially supporting the Sunnybrook Framework of Core Competencies for Interprofessional Team Collaboration (McLaney et al., 2022). This framework helped the researcher grasp the communication dynamics, shared decision-making, role clarity, mutual respect, and teamwork within the ICU setting at SLH, even though it was not the foundational basis of the study. Concepts such as "collaborative strain," “adaptive workarounds," and "hierarchical communication barriers" arose from the themes, encapsulating the participants’ experiences more abstractly.

Step 6: Development of Conceptual Model

The final analysis stage involved creating a conceptual model that visually represented the relationships among key themes, contextual influences, and outcomes. This model synthesized the findings and linked them back to the research questions and the broader theoretical framework. It highlighted how institutional constraints, communication challenges, and professional hierarchies influenced nurses’ experiences of IPC and how they developed coping strategies to manage these realities. Furthermore, the model emphasized areas for potential improvement and policy action, enhancing the study's contribution to practice and knowledge.

Employing thematic analysis in this structured manner provided a flexible yet rigorous avenue for engaging with qualitative data (Creswell & Poth, 2018). It facilitated in-depth interpretation and allowed the identification of rich, layered themes that reflected the lived experiences of ICU nurses at Scottish Livingstone Hospital. Ultimately, this approach aligned with the study's exploratory nature and offered a solid foundation for presenting and discussing findings in the subsequent chapter.

3.12 Ethical Considerations

This study was conducted in accordance with recognized ethical research standards to protect the rights, dignity, and welfare of all participants. Ethical approval and necessary permissions were obtained from the relevant authorities prior to data collection. The researcher was first registered with the National Health Research Authority (NHRA) in Zambia under reference number NHRAR-R-1496/15/04/2024**.** Subsequently, ethical clearance was obtained from the University of Zambia Biomedical Research Ethics Committee (UNZABREC), reference number 5809-2024. Given that the study was carried out in Botswana, additional authorization was sought from the Botswana Ministry of Health's Research Division, under reference number HPRD: 6/14/1, and institutional approval was granted by Scottish Livingstone Hospital (SLH) under reference number SLH 6/17/1 IX**.**

Informed consent was a cornerstone of the study's ethical process. The Head of Department was informed of the research and relayed the information to the ICU nurses. Before the interviews, each participant was provided with an information sheet outlining the study's objectives, procedures, and voluntary nature. The participants were given adequate time to review the information and ask questions for clarity. Written informed consent was then obtained, with participants signing a consent form that authorized audio recording of interviews and the use of anonymized data for research purposes. To ensure confidentiality and anonymity, participants' identities were protected through the assignment of unique codes, and no names or identifying features were linked to the final analysis or report. Audio files and transcripts were stored securely in password-protected files, with access limited to the researcher. During reporting, all data was anonymized to avoid any disclosure of personal information.

Although the study posed minimal risk, a trained counsellor was made available to support participants in the event that any questions triggered emotional distress during the interviews. This provision reflects the ethical principle of beneficence, which was prioritized throughout the research process by creating a safe, respectful, and non-judgmental environment. The interviews were conducted in a quiet, private setting within the hospital to ensure comfort and discretion. Participants were reminded of their right to withdraw from the study at any point without facing any consequences. This assurance, along with the emphasis on voluntary participation and emotional support, helped to foster an atmosphere of trust and transparency, consistent with the ethical principles of autonomy, beneficence, and respect for persons.

CHAPTER 4: FINDINGS

4.1 Introduction

This chapter presents the study's findings, offering a detailed narrative of the data collected through in-depth interviews with ICU nurses at Scottish Livingstone Hospital (SLH) in Molepolole, Botswana. The study aimed to explore the experiences of ICU nurses regarding interprofessional collaboration within the context of a resource-limited critical care setting. Using a thematic analysis approach, the findings are organized around four main themes derived directly from the research objectives and participant responses.

The chapter begins by outlining the socio-demographic profile of the participants to provide context for the perspectives shared. It then proceeds to present the themes systematically and coherently. Each theme is introduced with a brief overview and supported by rich, descriptive narratives and direct quotations from participants. This approach ensures that the findings authentically reflect the voices of the ICU nurses while aligning closely with the study's objectives.

4.2 Participant Socio-Demographic Profile

Interviews were conducted with ICU nurses until data saturation was reached after the 10th participant, when no new insights emerged from subsequent interviews. The socio-demographic characteristics of the participants provide essential context for understanding their experiences with interprofessional collaboration. The participants' ages ranged from 29 to 42 years, encompassing both early-career and more experienced professionals. Overall nursing experience among the participants varied from 6 to 21 years, while ICU-specific experience ranged from as little as 1 year to as many as 21 years. Educational qualifications were diverse, including advanced diplomas, degrees, and postgraduate diplomas. Additionally, several participants had recently obtained specialized certifications in Critical Care Nursing or related fields, reflecting their commitment to advanced clinical practice and continuous professional development.

Table 1: Summary Of The Participant Socio-Demographic Profile

VARIABLE	DESCRIPTION/RANGE		
AGE	29-42 years		
YEARS OF NURSING EXPERIENCE	5-10 YEARS	10-20 YEARS	21-30 YEARS
	4	5	1
YEARS OF ICU EXPERIENCE	1-21 years		
HIGHEST LEVEL OF EDUCATION	Higher Diploma, Post-basic Diploma, Degree		
ADDITIONAL CERTIFICATIONS	From the 10 participants of the study, Only four (4) were qualified critical care nurses, (2)of which possess a post basic diploma in critical care and two (2) with a degree in Critical Care Nursing. Only one (1) nurse had a Bacheor of nursing degree while the remaining five (5) were qualified with a higher diploma in general nursing..		

4.3 THEMES AND SUB-THEMES

Thematic analysis of data derived from interviews facilitated the identification of patterns, perspectives, and meanings rooted in the participants' lived experiences. The themes elucidated in this study are anchored by the primary objective and three specific objectives, encompassing four principal themes:

1. Experiences of ICU Nurses Regarding Interprofessional Collaboration
2. Facilitators of Interprofessional Collaboration
3. Barriers to Interprofessional Collaboration
4. Coping Strategies Utilized by ICU Nurses and their recommendations for improvement

Each principal theme is further delineated into three sub-themes, which provide comprehensive insights into the crucial issues articulated by the participants. Each thematic section incorporates narrative descriptions underpinned by verbatim quotes from participants, thereby ensuring that their voices remain central to the interpretation and presentation of the findings.

Table 2: Summary Of Themes, Subthemes, participant references And Example Codes

THEME	SUB-THEME	EXAMPLE DESCRIPTORS (WITH PARTICIPANT REFERENCES)	EXAMPLE CODES
1. Experiences of ICU Nurses with IPC	1.1 Understanding and Definitions of IPC	a. IPC is when various health teams work together for the benefit of the patient.(P1) b. It is when different health professionals, such as doctors, dieticians, and nurses, work together in caring for ICU patients.	a. Different health professions b. Working together c. Patient benefiting
	1.2 Everyday Communication Practices	a. We usually communicate through documentation, referrals, and handing over. (P2) b. Sometimes doctors fail to communicate with nurses, leaving orders pending.(P1)	a. Modes of communication b. Effective documentation c. Communication breakdown

	1.3 Engagement in Decision-Making	a. Collaboration helped adjust feeds for a patient with diarrhea after a nurse reported the condition to the doctors and dietitian. (P2) b. Doctors are confused about their roles… even the medical officers or other specialists admit patients. This creates tension when nurses question the cases (P9)	a. Joint decision maing, b. Unilateral decisions c. Nurse advocacy d. Hierarchical dominance
2. Barriers to Interprofessional Collaboration	2.1 Communication Gaps	a. We don't always get updates when decisions are made during handovers. (P1) b. Lack of documentation or verbal communication causes repeated errors. (P8)	a. Incomplete handovers b. Poor communication flow c. Missed updates
	2.2 Hierarchical Structures	a. Sometimes our suggestions are not taken seriously because of rank.(P7) b. Doctors sometimes speak to us harshly, making it hard to ask questions. (P4)	a. Power imbalance b. Rank-based dismissal c. Communication fear

	2.3 Shortage of Staff and Time	a. We are too few in the unit, so everyone is just rushing. (P2) b. There is no time to meet or discuss cases as a team.(P5)	a. Understaffing b. Time constraints c. Missed collaboration opportunities
3. Facilitators of Interprofessional Collaboration	3.1 Respect and Recognition	a. When our input is acknowledged, it motivates us to do more. (P6) b. Respect from other professionals creates a better atmosphere. (P9)	a. Mutual respect b. Positive morale c. Recognition
	3.2 Open Communication Channels	a. It's better when we have direct access to discuss with doctors, especially during emergencies.(P1) b. We have WhatsApp groups for urgent communication and that helps. (P3)	a. Open dialogue b. Use of digital tools c. Emergency responsiveness
	3.3 Collaborative Culture and Shared Goals	a. Involving each discipline in ward rounds has helped build teamwork. (P8) b. When everyone is working toward the same goal, care becomes smoother. (P7)	a. Shared objectives b. Team approach c. Multidisciplinary rounds

4. Coping Strategies utilized by ICU Nurses and their recommendations for improvement	4.1 Individual and Peer-Based Coping Mechanisms	a. Sometimes you get so frustrated you want to give up, but I tell myself, just hang in there and pray. (P2) b. After a tough shift, we just sit together, talk, and laugh it off. That's how we survive.(P6)	a. Resilience b. Nursing Solidarity c. Emotional Support
	4.2 Adaptive and Informal Collaborative Strategies	a. When we see a recurring problem, we document it in incident reports or escalate it to management (P6) b. If the physiotherapist/ radiographer delays, I will call again and again until they respond. Sometimes I even go find them myself. You have to follow up or patients suffer.(P1)	a. Taking initiative b. bypassing rigid hierarchies when necessary. c. Escalation
	4.3 . Recommendations for Systemic Improvement	c. There should be an active department that solely focuses on research and improvement of practice especially service	d. Structured team rounds for better collaboration e. Dedicated improvement and research unit

		provision and delivery across all professions (P9). d. We need structured team rounds where all key professionals discuss patient progress together. This would reduce confusion and improve collaboration. It is a learning forum for everyone. (P8)	

4.3.1. Theme One: Experiences of ICU Nurses with Interprofessional Collaboration

a. Sub-theme 1.1: Understanding and Definitions of IPC

This sub-theme adressed the nurses' conceptual understanding of what IPC means to them in the ICU setting. It was is foundational to their experience because how they perceived IPC ultimately shaped how they engage with it. Participants demonstrated a shared understanding of interprofessional collaboration (IPC) as a joint effort among different healthcare professionals to provide comprehensive patient care. This was commonly described in terms of teamwork among diverse cadres such as nurses, doctors, dietitians, and physiotherapists, each contributing their expertise to ensure optimal patient outcomes. One participant stated

> *"It is when different health professionals, such as doctors, dieticians, and nurses, work together in caring for ICU patients." (Participant 2)*

This simple yet effective definition emphasized the collaborative nature of care and the shared goal of improving patient health. Another participant offered a more detailed description, saying

> *"A collaboration of various disciplines occurs when they work together in a coordinated and integrated manner to deliver comprehensive, quality care to patients. It involves mutual respect, open communication, and shared decision-making." (Participant 9)*

This response highlighted the involvement of multiple disciplines, emphasizing the importance of combined efforts. It also stressed the necessity of healthy communication, mutual respect, and shared decision-making. Statements regarding the meaning of IPC underscored the idea that IPC encompasses not only physical collaboration but also the recognition and appreciation of each team member's unique contributions. Nonetheless, while the general understanding of IPC was clear, some participants observed variations in how IPC was practiced among different teams. For example, another participant explained,

> *"Some teams are better at involving everyone in the decision-making, while others are more hierarchical, with doctors leading most of the decisions." (Participant 5)*

This observation points to a potential gap between the theoretical understanding of IPC and its practical application, where some teams may not fully embrace the collaborative approach outlined by the participants.

Overall, participants shared a common understanding of IPC as a collaborative effort that enhances patient care by bringing together the expertise of various healthcare professionals. However, the responses also indicated variability in the extent to which IPC was consistently practiced across different teams and contexts.

b. Sub-theme 1.2: Everyday Communication Practices

Every day communication practices involve the practical, routine ways in which ICU nurses interact with other professionals, as communication is a core aspect of the interprofessional experience that reflects how collaboration occurs daily. Participants identified various communication practices regularly employed in their interprofessional interactions, with documentation, referrals, and handovers central to their daily communication processes. These communication methods were essential for ensuring that patient care was coordinated and that all team members were kept informed of critical updates. Respondents emphasized the routine nature of communication in the ICU, stating,

> *"We usually communicate through documentation, referrals, and handing over."(Participant 2)*

This response highlights the formalized communication processes that ensure continuity of care. Nurses highlighted that documentation serves as a written record of patient information, referrals guide patient care between specialties, and handovers allow for the transfer of responsibility and information between shifts or healthcare providers.

While essential, the nurses mentioned that these methods often rely heavily on the accuracy and clarity of information to prevent errors or omissions. However, while formal communication methods were frequently mentioned, participants also pointed out communication challenges, particularly concerning interactions between nurses and doctors. They expressed frustration, noting,

> *"Sometimes doctors fail to communicate with nurses, leaving orders pending." (Participant 1)*

This comment underscores a common issue in the ICU noted by the nurses, where a lack of communication can lead to delays in care or uncertainty about the next steps in treatment. They emphasized how failure to communicate effectively impacts the efficiency of patient care and contributes to frustration and confusion among nursing staff who may be left waiting for clarification or direction. They simultaneously echoed this concern, adding,

> *"There are times when we're waiting for doctors to give orders, and this delay affects the timely care we want to provide to the patient." (Participant 5*)

Such delays can be particularly problematic in the ICU, where rapid decision-making is crucial for patient survival. These communication breakdowns were seen as hindrances to the team's smooth operation, affecting not only patient outcomes but also the morale and job satisfaction of the nurses who may feel sidelined or underutilized in decision-making processes.

Despite these challenges, participants noted moments when communication was effective and collaborative. Nurses shared positive examples that highlighted the importance of clear and organized communication during shift changes or in critical situations, where miscommunication could have dire consequences.

> *"When we have clear handovers and consult one another, the team functions much better, and it's easier to work together." (Participant 6)*

In summary, while participants identified structured communication practices such as documentation, referrals, and handovers as central to everyday IPC, they also highlighted significant issues related to communication breakdowns, particularly in doctor-nurse interactions. These challenges underscore the need for improvements in communication protocols to ensure more efficient and effective collaboration in high-stakes environments like the ICU.

c. Sub-theme 1.3: Engagement in Decision-Making

The involvement and acknowledgment of nurses, or the lack thereof, during clinical decision-making captures the lived experience of inclusion or exclusion, which is pivotal for successful collaboration. Participants shared mixed experiences regarding their involvement in decision-making. Some highlighted positive outcomes when collaboration was fostered, while others expressed frustration due to unclear role boundaries and conflicting directives that created tension within the team. These varied experiences reflect both the potential benefits and challenges of engaging in decision-making processes in a high-pressure clinical environment. They provided clear examples of positive engagement in decision-making, stating,

> "*Collaboration helped adjust feeds for a patient with diarrhea after a nurse reported the condition to the doctors and dietitian." (Participant 4)*

Responses illustrated the power of effective communication and teamwork in the decision-making process, where the active involvement of nurses in reporting patient conditions led to collaborative actions that directly improved patient care. However, not all participants experienced such positive interactions, with contrasting views from other participants.

> "*Doctors are confused about their roles… even the medical officers or other specialists admit patients. This creates tension when nurses question the cases." (Participant 9*)

These contrasting experiences were a common highlight among respondents who expressed concerns about the delicate balance required in decision-making processes within interprofessional teams. Participants also noted that the power dynamics in decision-making could influence the level of engagement from different team members. For instance, a respondent mentioned,

> *"Sometimes, when doctors make decisions without asking the nurses for their input, it feels like our voices don't matter." (Participant 7)*

The nurses expressed how feelings of exclusion can negatively affect their willingness to engage in future collaborative decisions, ultimately reducing the quality of interprofessional communication and teamwork.

In summary, participants' experiences with engagement in decision-making were highly variable. Positive outcomes emerged when collaboration was emphasized and role clarity existed, allowing for the inclusion of nurses in critical decisions. However, unclear role boundaries and conflicting directives created tension, with nurses sometimes feeling sidelined or disregarded in the decision-making process.

4.3.2. Theme 2: Barriers to Interprofessional Collaboration

Participants described a range of factors that hinder effective interprofessional collaboration in the ICU. These included poor communication, rigid hierarchies that limit inclusive decision-making, and systemic issues such as staff shortages and time constraints. Collectively, these barriers were reported to negatively impact team cohesion, timely interventions, and overall patient care.

a. Sub-theme 2.1: Communication Gaps

Communication breakdowns represent one of the most widely recognized barriers to interprofessional collaboration. Participants have described issues such as missed referrals, lack of updates, and isolated decision-making, all of which negatively affect collaborative efforts. They consistently reported that ineffective communication hindered interprofessional collaboration in the ICU. Gaps were noted in both verbal and written exchanges, particularly during patient handovers, rounds, and documentation processes. These lapses often resulted in misunderstandings, delays in care, and clinical errors. One participant explained that updates were not always shared in a timely manner:

> *"We don't always get updates when decisions are made during handovers." (Participant 1)*

They revealed how communication gaps directly impacted patient safety through various ways inclusive of missing or unclear documentation . Another participant mentioned

> *"Lack of documentation or verbal communication causes repeated errors." (Participant 8)*

Nurses also verbalized how the lack of communication between them and other professions actively involved in patient care regarding interventions on patients makes it difficult to achieve seamless collaboration. A respondent similarly noted challenges with inconsistent information flow, stating:

> *"Sometimes we only find out changes were made after the doctor has already done something, and it's not even written down, nor were we given a heads-up."(Participant 9)*

Respondents frequently described communication as inconsistent and unreliable, particularly during patient handovers and care transitions. Several nurses mentioned that they were often not updated when decisions were made by other team members, which resulted in confusion and delayed responses. Others pointed out that important information was sometimes not documented or verbally communicated, leading to repeated clinical errors. Some participants also reported discovering changes in patient management only after actions had already been taken, with no prior discussion or record available.

b. Sub-theme 2.2: Hierarchical Structures

In the SLH ICU, pronounced differences in professional rank and power imbalances were frequently reported as significant obstacles to effective interprofessional collaboration. Participants described a workplace atmosphere where their contributions were sometimes unrecognized or disregarded due to perceived disparities in status within the healthcare team. Nurses expressed frustration at their clinical insights being overlooked, especially during interactions with colleagues in senior roles. One participant mentioned that their suggestions were often ignored solely because of their lesser status in the professional hierarchy, stating,

> *"Sometimes you feel like you're being talked down to, simply because you are a nurse. It makes it hard to have open communication. At one point, another Doctor said to me, I don't remember seeing you in medical school when I double-checked with him about giving an opioid to a hypotensive patient." (Participant 5)*

Nurses have noted that hierarchical barriers and professional biases can hinder effective teamwork, leading to frustration and poor collaboration. Additionally, several nurses recounted experiences of being addressed sharply or patronizingly by medical officers, creating an intimidating atmosphere that stifled open communication. As one nurse expressed,

"Doctors sometimes speak to us harshly, making it hard to ask questions." (Participant 4)

These observations suggest that hierarchical dynamics within the ICU can hinder collaboration and negatively impact nurses' confidence and their willingness to engage in team discussions actively.

c. Sub-theme 2.3: Shortage of Staff and Time

Nurses reported that systemic issues such as understaffing and time constraints significantly impacted the feasibility and quality of collaboration. They noted that when staff members are overwhelmed, communication tends to be hurried or omitted, which negatively affects teamwork and increases tensions. Participants widely acknowledged that insufficient staffing and limited time were key barriers to effective interprofessional collaboration. Many nurses reported feeling overburdened during shifts, often managing multiple critically ill patients without adequate support. This workload pressure reduced opportunities for proper communication and teamwork with other professionals. One nurse explained

"Sometimes you have one nurse looking after more than two critical patients. How do you expect proper teamwork?" *(Participant 4).*

Another participant noted,

"We are too few in the unit, so everyone is just rushing." (Participant 2)

Responses emphasized that staff shortages led to hurried, fragmented care, which limited collaborative engagement. In addition to the personnel shortage, nurses identified time constraints as a significant challenge. They noted that there was little or no protected time allocated for multidisciplinary discussions.

One participant remarked,

> *"There is no time to meet or discuss cases as a team. How can we actively discuss cases when we are just 2 per shift? " (Participant 5)*

Others described how collaborative planning was often skipped in favor of immediate task execution.

4.3.3 Theme 3: Facilitators of Interprofessional Collaboration

a. Sub-theme 3.1: Respect and Recognition

Participants emphasized that mutual respect and acknowledgment of their contributions are key elements in promoting effective interprofessional collaboration. They described how feeling respected by other professionals, particularly doctors and dieticians, positively influences their motivation and willingness to engage in collaborative care.

The nurses shared how recognition made them feel like active contributors to the team, rather than passive implementers of others' decisions.

> *"When our input is acknowledged, it motivates us to do more. It shows that our opinions are valued and not just brushed aside. It boosts confidence." (Participant 6)*

According to the participants, this recognition made them feel like active contributors to the team rather than passive implementers of others' decisions. Participants also explained how they viewed experiences with respectful interactions not only as morale boosters but as critical enablers of open communication and trust among team members.

> *"Respect from other professionals creates a better atmosphere. It helps us work as a team without fear of being looked down on or ignored. You feel like you belong and that your voice matters." (Participant 9).*

These expressions illustrate that when nurses experience respect and professional recognition, they are more inclined to participate in collaborative efforts and contribute meaningfully to patient care. Participants also linked recognition through inclusive behaviour to increased professional

satisfaction and stronger team cohesion, especially in high-pressure situations. A respondent added,

> *"There are some doctors who always involve us and genuinely listen when we make suggestions. You can tell that they trust our judgment, and that makes you want to contribute even more." (Participant 5).*

The participants overall emphasized that experiencing respect and professional recognition made them more inclined to actively participate in decision-making, ultimately empowering them to contribute meaningfully to collaborative patient care.

b. Sub-theme 3.2: Open Communication Channels

Participants emphasized the importance of having accessible and timely communication channels to facilitate effective collaboration in the ICU. Open communication channels, both formal and informal, were considered essential, particularly in time-sensitive situations such as emergencies. Nurses highlighted the benefit of having direct communication with doctors during critical events, explaining,

> *"It's better when we have direct access to discuss with doctors, especially during emergencies. You don't have to go through too many people—you just call or find them." (Participant 1).*

This immediate access was valued for its ability to accelerate responses and improve coordination in urgent clinical situations. Additionally, a frequently noted benefit of these communication channels was how digital platforms facilitated communication flow.

> *"We have WhatsApp groups for urgent communication and that helps. Sometimes if something happens at night, you can just send a message and they'll respond*." *(Participant 3).*

These platforms were described as practical tools for relaying updates, clarifying issues, and seeking support when face-to-face discussions weren't possible. Respondents also suggested that using direct communication methods could serve as a catalyst to avoid delays and reduce misunderstandings. They shared,

> *"Sometimes you just go straight to the doctor and explain the situation—it's faster and clearer than waiting for them to find it in the file*." *(Participant 6).*

This proactive approach was viewed as an essential facilitator in daily ICU routines.

Overall, participants indicated that open and accessible communication channels, whether verbal, digital, or face-to-face, played a central role in maintaining collaborative workflow and timely decision-making.

c. Sub-theme 3.3: Collaborative Culture and Shared Goals

Participants recognized that a collaborative culture and shared goals were essential for facilitating interprofessional collaboration. They noted that when all team members focused on a common objective, such as quality patient care, working relationships improved, and collaboration became more seamless. One participant reflected,

> *"Involving each discipline in ward rounds has helped build teamwork. When physicians, dietitians, nurses, and doctors are all present, everyone has the opportunity to hear the plan and contribute. It makes things clearer." (Participant 8).*

This inclusion during rounds was viewed as a crucial opportunity for communication, role clarity, and collective problem-solving. Another participant highlighted the significance of unity in purpose:

> *"When everyone is working toward the same goal, care becomes smoother. You don't have to chase people around for information, they're already part of the discussion*."*(Participant 7).*

The participant described how shared intent among different professionals reduced delays and enhanced workflow. Similarly, other participants held the perspective that collaboration felt more effective when there was mutual commitment to the patient's well-being, stating,

> *"You can tell when the team is aligned, it's easier to trust each other, and the patient benefits*." *(Participant 2).*

This alignment of values was seen to enhance communication and promote professional respect. These narratives from the nurses all anchored on the belief that when interprofessional teams operate with shared goals and inclusive practices, a stronger sense of unity, trust, and efficiency emerges in ICU care delivery.

4.3.4. Theme 4: Coping Strategies utilized by ICU Nurses and their recommendations for improvement

This theme presents the various ways ICU nurses at Scottish Livingstone Hospital cope with the challenges encountered in interprofessional collaboration, as well as their suggestions for improving collaborative practice. The responses revealed a combination of individual, peer-based, and adaptive coping strategies developed through experience in a demanding and resource-constrained environment. Nurses shared how they manage emotional stress, navigate professional tensions, and find alternative ways to ensure patient care continues despite systemic and interpersonal barriers. In addition to coping mechanisms, participants offered practical recommendations to improve communication, teamwork, and structural support for interprofessional collaboration within the ICU.

a. Sub-theme 4.1: Individual and Peer-Based Coping Mechanisms

Participants described various ways they coped with the emotional and professional challenges to IPC that arise from working in a high-pressure ICU environment. These strategies were often personal, spiritual, or based on informal peer support within the unit. One participant shared how they relied on individual resilience and faith to manage the stress, stating,

> *"Sometimes you get so frustrated you want to give up, but I tell myself, just hang in there and pray." (Participant 2).*

This inner dialogue was described as maintaining a sense of grounding during overwhelming moments, especially when interprofessional challenges created additional pressure. Additionally, others highlighted the importance of leaning on colleagues for emotional relief and solidarity. One nurse explained,

> *"After a tough shift of being rudely addressed by some Drs and Physiotherapists and being referred to as difficult or just a nurse, we just sit together, talk about it, and laugh it off because after all, we were advocating for the patient and the right practices. That's how we survive." (Participant 6).*

These informal peer interactions were described as a key outlet for releasing tension, processing difficult experiences, and maintaining morale. In a like manner, participants described focusing on patient advocacy and clinical responsibility as a form of coping, stating,

> *"I strive to provide a comprehensive history documenting every observation and interaction… while advocating for the patient. My work ethic is doing the right thing to the best of my ability so that tomorrow if I dare stand in court for whatever reason, I will do so with a clean conscience*." *(Participant 3).*

Participants noted that this sense of duty serves as a positive focus, even amidst frustrating or discouraging work environments. Collectively, these accounts were reported to be a motivating factor for why ICU nurses significantly depend on their inner strength, faith, and relationships with peers to manage the interpersonal and systemic pressures characteristic of the ICU setting.

b. Sub-theme 4.2: Adaptive and Informal Collaborative Strategies

Participants described relying on adaptive and informal approaches to deal with interprofessional challenges, particularly when formal systems failed or delays threatened patient care. These strategies included persistent follow-up, direct engagement, and escalation through available channels. One nurse explained that persistent follow-up with other professionals was often necessary, sharing,

> *"If the physiotherapist or radiographer delays, I will call again and again until they* respond. Sometimes I even go find them myself. You have to follow up or patients suffer." *(Participant 1).*

This hands-on approach was viewed as necessary to maintain continuity of care. Others addressed the importance of documenting persistent issues as a coping and corrective measure. One participant noted,

> *"When we see a recurring problem, we document it in incident reports or escalate it to management. Sometimes not much is done, but it is worth a try anyway*." *(Participant 6).*

Such informal yet proactive strategies enabled nurses to respond to gaps in collaboration and ensure that patient needs were addressed in real-time.

c. Sub-theme 4.3: Recommendations for systemic improvement

Beyond their personal and informal strategies, participants proposed structural improvements to strengthen interprofessional collaboration in the ICU. These suggestions were shaped by their daily experiences and offered insight into how the system could better support team-based care. Their recommendations focused on improving communication structures, strengthening leadership, enhancing professional orientation, and creating platforms for shared learning. Several suggestions were mentioned to address challenges with IPC.

> "*They should build a team that focuses on research and inquiries from the nursing profession and other service providers that will enable them to go to the drawing board to come up with solutions for example, reviews on service providers' concerns as well as multidisciplinary team grounds and also have a clear interval on these reviews (how often they will have these meetings with nurses and rounds*." *(Participant 9).*

This was seen as a way to institutionalize learning and enhance the overall quality of care. Moreover, this approach was viewed as a means to build understanding, align efforts, and strengthen team dynamics across the unit. Respondents further emphasized the need for ICU-specific leadership and representation in decision-making, stating,

> *"There needs to be a dedicated director for critical care who champions specific units like the ICU, NNU, and Theatre regarding their requirements for staff, equipment, and policies. This director should also have direct oversight linked to the matron. Currently, our head of department is a nurse anesthetist who mainly works in Theatre. We need someone who is fully dedicated to management and not engaged at the bedside like the rest of us" (Participant 7).*

Orientation and onboarding processes were also highlighted. A nurse suggested,

> *"All new staff should go through proper orientation when joining the ICU, so they understand the roles of others and the standard procedures*." *(Participant 6).*

According to participants, unfamiliarity with ICU workflows often led to confusion and tension among professionals. They mentioned how new staff members sometimes struggle to adjust to how things are done at SLH, as well as to ICU protocols. Participants also recommended that continuous professional development (CPD) sessions encompass multiple disciplines and be tailored to the realities of intensive care unit (ICU) care. One nurse shared,

> *"Attending the same workshops, such as ACLS or IPC training, is beneficial. Learning together makes it simpler to implement that knowledge in the workplace collaboratively. There should be joint workshops that include simulations and role-playing, not just for nurses and doctors but also for lab representatives, physiotherapists, and dietitians." (Participant 5)*

Shared training was viewed as a source of knowledge and a way of building rapport and consistency across the care team. These recommendations reflected a desire for not only immediate fixes but also long-term, system-wide enhancements that would embed collaboration more deeply into ICU culture.

4.4 Conclusion

This chapter summarizes the findings of the study, categorized into four key themes that illustrate ICU nurses' experiences with interprofessional collaboration at Scottish Livingstone Hospital. The first theme delved into the interactions the nurses faced, showcasing both welcoming and isolating experiences influenced by communication styles and participation in decision-making. Another theme examined the obstacles to collaboration, such as communication breakdowns, hierarchical barriers, and insufficient staffing and time. The third theme emphasized enablers like mutual respect, opportunities for collaborative learning, and organized team activities that fostered effective teamwork. Finally, the last theme addressed the coping strategies employed by ICU nurses, which included peer support, direct follow-ups, and utilizing reporting systems, as well as their suggestions for systemic enhancements like structured rounds, enhanced leadership, and avenues for shared learning. Collectively, these themes illustrate the complex dynamics of interprofessional collaboration in a high-stakes ICU setting.

CHAPTER 5: DISCUSSION

5.1.Introduction

This chapter offers a thorough analysis of the findings from this study. It relates these findings to existing literature, addressing both similarities and differences between this study and previous research. The structure of the chapter begins with a discussion of the demographic profile of the participants, followed by a detailed examination of the themes that emerged from the study, which provide insights into its complexities. Finally, the chapter concludes with an evaluation of the study's implications, limitations, strengths, weaknesses, and a plan for disseminating the findings.

The study sought to explore the lived experiences of ICU nurses regarding interprofessional collaboration (IPC) at Scottish Livingstone Hospital (SLH) in Molepolole, Botswana. The findings revealed four key themes: Experiences of ICU nurses with IPC, Barriers to IPC, Facilitators of IPC, and Coping strategies and recommendations. Overall, the data suggest that while nurses understand and value infection prevention and control (IPC), their participation is often constrained by hierarchical power structures, inadequate communication, and systemic resource limitations. Nevertheless, facilitators such as mutual respect, open communication, and shared goals were seen as essential to collaborative success. At the same time, coping strategies ranged from personal resilience to informal follow-ups and documentation.

5.2 Participant Socio-Demographic Profile

The diversity in age, experience, and educational background among ICU nurses in this study provides a nuanced lens through which to understand their interprofessional collaboration (IPC) experiences. The age range (29–42 years) spans early-career to mid-career professionals, suggesting a balance between energy and adaptability on one hand, and maturity and clinical insight on the other. This variation is supported by Sanches et al., (2024) who emphasized that generational and career-stage diversity can affect perceptions of authority, autonomy, and communication in team-based care.

5.2.1 Experience and Exposure to Collaboration

Nurses with more years of ICU experience (up to 21 years) are likely to have deeper institutional knowledge and more consistent engagement with complex interprofessional dynamics. Research has shown that clinical experience is positively correlated with confidence in interdisciplinary communication and decision-making (Fry and MacGregor, 2024). In contrast, nurses with 1–3 years of ICU experience, as represented in this study, may still be adapting to the culture of ICU teams. As Benner's (1984) theory of novice to expert suggests, less experienced nurses are often focused on mastering technical skills and may be less assertive in hierarchical teams, especially in resource-constrained settings (Ogdoc and Superable, 2021; Stewart, 2021) These dynamics are relevant in Africa, Nigeria and Botswana, where studies indicate that junior nurses often hesitate to challenge physicians or initiate interdisciplinary conversations, particularly in the absence of strong mentorship structures (Sabone et al., 2020; Adejumo et al., 2023).

5.2.2 Educational Qualifications and IPC Readiness.

Participants' educational levels from advanced to postgraduate diplomas in critical care demonstrate significant investment in professional development. According to the World Health Organization **)**, academic preparation, especially interprofessional education (IPE), is foundational for effective IPC (WHO, 2023) **.** Educational preparation, especially interprofessional education (IPE), is foundational for effective IPC. According to the study, most nurses had a diploma, with higher education levels still being found in bedside nursing, partaking in active patient care. The were not necessarily in leadership positions as some scholars perceived. It appeared there was no distinction in practice as to which nurses had ICU training or higher qualificationss. This clearly contradicts scholars who observed in their studies that nurses with higher qualifications often receive formal training in leadership, ethics, and communication, all core to effective team dynamics (Duffy, 2024). Despite that, nurses with higher qualifications did stressed the strong drive to actively partake in patient care by contributing in discussions or knowledge sharing as well as in overall care and management of the patients. This is supported by some researchers who found that nurses with postgraduate education were more likely to assert their roles in interprofessional teams and actively participate in shared decision-making (Keshmiri, Rezai and Tavakoli, 2020).

In low-resource environments like SLH, where structured interprofessional rounds may be lacking, these nurses play a crucial role as advocates for collaborative care (Vaseghi, Yarmohammadian, & Raeisi, 2022).

5.2.3 Influence of Continuous Professional Development (CPD)

A few participants disclosed having recently acquired certifications in Critical Care Nursing. CPD is a significant enabler of IPC competence, exposing professionals to updated clinical guidelines and collaborative practices (Makowsky et al., 2019). Moreover, CPD participation often reflects a proactive attitude toward patient-centered care, which is positively associated with interprofessional engagement (King et al., 2021)

5.2.4 Gender Dynamics in Nursing

The predominance of women in nursing, as reflected by the all-female participant group in this study, aligns with global workforce trends—nearly 90% of nurses worldwide are women (WHO, 2023). This gender imbalance has important implications for interprofessional collaboration (IPC), particularly in settings where medical hierarchies persist. Research suggests that female nurses may face implicit gender biases that limit their influence in collaborative decision-making, especially when working with predominantly male physicians.

Despite these challenges, the female dominance in nursing can also foster a culture of peer support and relational resilience. Participants in this study described relying on one another to navigate the emotional strain of high-pressure ICU work, which aligns with Duijus et al (2024) observations on solidarity within female-dominated caregiving roles. However, the persistence of gendered communication patterns where female nurses may avoid confrontation to maintain harmony can further entrench power imbalances (Cleveland Manchanda et al., 2021). To promote more inclusive and effective IPC, healthcare systems must address gender bias through interprofessional education, leadership development, and structural reforms that empower nurses regardless of gender to contribute fully to patient care decisions as echoed by the respondents in this study.

5.3 Experiences Of Nurses on Interprofessional Collaboration

Participants in this study shared their lived experiences with interprofessional collaboration (IPC) in the ICU at Scottish Livingstone Hospital (SLH), focusing on how they understand IPC, communicate with team members, and engage in clinical decision-making. While they demonstrated a clear grasp of IPC principles, their experiences revealed both successes and struggles in bringing these ideals to life. These insights provide a deeper look into the practical realities of working in a multidisciplinary ICU team.

5.3.1 Understanding and definition of IPC

The participants in this study shared a cohesive conceptual understanding of Interprofessional Collaboration (IPC) as a multidisciplinary, team-based approach to patient care, emphasizing mutual respect, shared decision-making, and coordinated effort. This understanding aligns with the global definitions provided by the World Health Organization (2020)**,** which characterize IPC as a dynamic partnership across disciplines aimed at achieving optimal patient outcomes. The participants' views suggest that ICU nurses are not only aware of IPC principles but are invested in their practical application, indicating both theoretical awareness and professional aspiration.

However, a critical insight from the findings is the discrepancy between conceptual ideals and real-world practices. While the participants unanimously understood IPC as a collaborative ideal, many acknowledged variability in its execution. The data revealed inconsistencies in how IPC was operationalized, particularly in teams with rigid hierarchies or passive communication norms. This reflects the argument by Reeves et al. (2017) that systemic issues like power imbalances and unclear role boundaries often undermine IPC implementation. Moreover, Xyrichis and Rose (2024) note that despite global promotion of IPC, its uptake varies significantly across institutional cultures and professional disciplines, a point well-supported by the nurses' experience in this study.

5.3.2 Everyday Communication Practices

Communication emerged as a central facilitator but also a frequent barrier within daily interprofessional interactions. Nurses described routine communication practices such as documentation, referrals, and handovers as crucial tools for maintaining care continuity.

These findings align with studies by who affirm the role of structured communication in reducing errors and improving care efficiency in critical settings (Reader et al., 2019; Donovan et al., 2018). However, many participants reported recurring breakdowns in communication, particularly in nurse-doctor interactions. This reflects earlier literature, including Perron et al., (2022) Kowitlawakul et al. (2021), which identifies siloed communication and lack of feedback loops as primary causes of conflict in ICU teams.

The consequences of poor communication—missed orders, unshared updates, and care delays—were significant in the narratives of participants. These issues negatively influenced care quality and team morale, corroborating findings by that ineffective communication erodes trust, especially in time-sensitive environments. Importantly, participants emphasized that clear, direct handovers and immediate consultation in emergencies improved teamwork, reflecting best practices highlighted by Lee et al. (2019) in their analysis of critical care IPC models. This suggests that improving communication structures is not just desirable but necessary to operationalize IPC effectively.

5.3.3 Engagement in Decision-Making

The level of nurses' involvement in clinical decision-making was highly variable and deeply influenced by institutional culture and team dynamics. Participants offered compelling examples of collaborative success when nurses' observations led to timely interventions, as in the case of adjusted feeding plans. This underscores the critical value of nurses' frontline insights and supports Davidson et al. (2022), who argue that collaborative decision-making is most effective when all disciplines contribute based on proximity and professional insight.

However, many participants reported exclusion from decision-making processes, especially in teams with strong medical hierarchies. This is in line with several scholars who identify professional dominance, particularly by physicians as a major barrier to equitable collaboration (Schmitt, 2001; Walton et al., 2019; Hassan Amer Mousa Alqarny et al., 2024; Mohamed, Peck and Senekal, 2024). Such exclusion has emotional and practical consequences: nurses feel undervalued, and vital clinical information may be missed or delayed. These dynamics are especially problematic in resource-limited settings like Botswana, where nurses often carry the bulk of patient monitoring and care responsibilities (Sabone et al., 2020).

The finding that some doctors were described as “confused about their roles” also points to the need for clearer role delineation, as emphasized by other scholart (Makowsky et al. 2019)**.** Without this clarity, collaborative efforts become fragmented, leading to tension, inefficiency, and ultimately compromised patient outcomes.

5.4 Barriers to Interprofessional Collaboration

Participants in this study identified several key barriers that hinder effective interprofessional collaboration (IPC) within the ICU at Scottish Livingstone Hospital (SLH). These included: communication gaps, hierarchical power structures, and systemic constraints like staff shortages and time pressure. These findings underscore the reality that, while nurses well understand the ideal of IPC, its application is hindered by structural and interpersonal factors.

5.4.1 Communication Gaps

Nurses consistently reported poor communication, particularly during patient handovers and interdisciplinary interactions, as a central barrier to collaboration. They noted that updates are not always provided when decisions are made during handovers, which leads to situations where changes are communicated only after a doctor has already acted on them. This illustrates how communication breakdowns can result in clinical errors and delays in patient care. These findings align with global literature, including the work of Zwarenstein et al. (2019) and Donovan et al. (2018), both of which argue that ineffective communication represents one of the most pervasive threats to patient safety in complex clinical environments.In sub-Saharan African contexts, Waggie and Arends (2021) and Sabone et al. (2020) similarly found that fragmented communication is compounded by resource limitations and hierarchical team structures, leading to reduced nurse engagement. The SLH setting reflects these same patterns, where informal or delayed communication undermines timely, coordinated care.

5.4.2 Hierarchical Structures

In the narratives of the participants, power imbalances frequently emerged as a significant issue. Nurses shared experiences of feeling patronized or ignored by doctors, often leading to feelings of being talked down to simply because of their profession.

These stories highlight the deeply ingrained hierarchies in healthcare that undervalue nursing contributions, even in critical settings where their perspectives are crucial. Globally, this problem is well-documented**.** Xyrichis and Rose (2024) and Perron et al. (2022) argue that despite advocacy for flattened hierarchies, the medical profession's dominance continues to obstruct true collaboration. In Botswana, Sabone et al. (2020) highlight how cultural and professional norms often reinforce a chain-of-command mentality in hospital settings, sidelining nurses during decision-making processes.

This dynamic is emotionally taxing and professionally disempowering, potentially leading to disengagement. Lansater et al. (2021) found that such exclusion contributes to low morale, burnout, and a culture of silence among nurses. The findings of this study support that conclusion, with participants describing frustration and hesitation to speak up even when patient safety is at stake.

5.4.3 Staff Shortages and Time Pressure

Participants widely acknowledged that understaffing and time constraints impact Infection Prevention and Control (IPC). Pivotal statements from participants illuminate these issues with poignant examples. For instance, one participant expressed that in some cases, a single nurse is responsible for more than two critical patients. This observation underscores the immense workload and strain on nursing staff, indicating that when overwhelmed, nurses are compelled to prioritize immediate tasks, such as patient care, over essential communication and collaboration with colleagues. This finding aligns with broader regional literature, notably the work of Mohamed, Peck, and Senekal (2024), which identifies similar trends in South African district hospitals. Their research reveals that high patient turnover, combined with insufficient staffing and inadequate infrastructure, creates significant barriers to effective IPC, mirroring the experiences reported by participants.

Globally, the World Health Organization (2023) points out that staffing shortages are prevalent, especially in Low- and Middle-Income Countries (LMICs). In these regions, healthcare professionals are burdened with heavy workloads and limited resources, a reality starkly evident in Botswana's public health landscape.

The link between resource constraints and the delivery of healthcare is highlighted by the fact that these shortages lead to inadequate time for crucial multidisciplinary rounds and hurried handovers, risking the omission of vital care planning steps. As a result, the text depicts a concerning picture where the aspiration for collaboration within healthcare shifts from an achievable goal to a distant ideal, underscoring the significant effects of staffing issues on healthcare quality and patient safety.

5.5 Facilitators of Interprofessional Collaboration

Participants in this study identified several enablers that supported effective interprofessional collaboration (IPC) in the ICU: mutual respect and recognition, open communication channels, and a collaborative culture with shared goals. These facilitators were seen as crucial not only for achieving patient care objectives but also for improving morale, professional satisfaction, and team cohesion.

5.5.1 Respect and Recognition

Participants consistently emphasized that mutual respect and professional recognition are powerful motivators for engaging in interprofessional collaboration (IPC). Nurses shared their experiences, noting that acknowledgment from doctors, dieticians, and other professionals significantly boosted their morale and made them feel like valued team members. Many expressed how this recognition encouraged them to contribute more and fostered a sense of belonging within the team. This sentiment underscores the importance of respect in fostering a psychologically safe environment. These findings align with the research of Wei et al. (2020) and Makowsky et al. (2019), which demonstrated that recognition enhances nurses' willingness to engage meaningfully in collaborative care. Moreover, respect fosters open communication, resulting in a safer and more productive work environment. The current findings affirm the World Health Organization's (2019) position that inclusive and respectful team dynamics are central to successful IPC.

In contrast, the literature also reveals that respect is not always reciprocated across professional lines in many healthcare settings, especially hierarchical ones. Studies in African contexts, such as those by Waggie and Arends (2021) in South Africa and Sabone et al. (2020) in Botswana, have found that nurses often feel marginalized in clinical conversations, particularly by physicians. Thus, when respect is present, as in the current study's positive examples, it acts as a facilitator for collaboration and a buffer against burnout.

This observation is echoed by Lansater et al. (2021), who link mutual recognition to increased job satisfaction and reduced interprofessional tension. In sum, fostering respect is not only ethically appropriate but also critical to enhancing IPC performance and nurse retention.

5.5.2 Open Communication Channels

Participants emphasized that open and direct communication is crucial for effective IPC in the ICU. They noted that engaging in face-to-face discussions with physicians, especially during emergencies, reduces delays and improves clarity. One participant highlighted that direct communication is faster and clearer compared to waiting for physicians to locate information in files, reflecting a clear preference for communication methods that bypass bureaucratic delays. Additionally, participants acknowledged the usefulness of digital tools like WhatsApp groups, which provide an easy platform for real-time updates, particularly during night shifts. These findings align with the research of Pantha et al. (2023) and Donovan et al. (2018), suggesting that clear communication across roles decreases errors and fosters coordinated care. Though the advantages of open communication are clear, the dependence on informal methods like mobile messaging highlights the deficiencies in formal communication systems. In Botswana and other resource-limited settings, informal channels frequently bridge significant gaps in structured communication (Sabone et al., 2020). Atanasova et al. (2021) observed that mobile technology improves responsiveness and accessibility, especially in urgent healthcare situations. However, as Kowitlawakul et al. (2021) caution, the lack of standardization in using informal methods can lead to informational gaps and issues with accountability. The current findings indicate that formalizing open communication systems while leveraging digital advancements could boost collaboration without sacrificing protocol adherence.

5.5.3 Collaborative Culture and Shared Goals

Participants emphasized that a collaborative culture rooted in shared goals was vital to successful interprofessional work. When all disciplines including nurses, physicians, and allied professionals—were present during ward rounds and shared the same patient-focused objectives, care delivery improved. One participant noted that everyone gets to hear the plan and contribute, which clarifies things, underscoring the importance of inclusion in shared decision-making spaces.

These findings resonate with Xyrichis and Rose (2024), who stress that shared goals flatten professional hierarchies and promote inclusion. A culture of collaboration also improves trust and professional relationships, reinforcing findings from O'Daniel and Rosenstein (2018) that psychological safety is essential for team performance.

Moreover, participants reported that shared goals reduce redundancy and promote coordination, especially critical in the fast-paced ICU environment. This finding aligns with Perron et al. (2022), who suggest that shared intent in smaller or resource-limited settings can compensate for infrastructural challenges. Locally, fostering a collaborative culture may address concerns Sabone et al. (2020) raised about disjointed professional roles in Botswana's healthcare system. The present study demonstrates that when team members share a common purpose, collaboration becomes more efficient, roles are clarified, and the risk of miscommunication decreases. Embedding shared goal-setting into organizational routines can thus catalyze sustained interprofessional collaboration.

5.6 Coping Strategies Utilized By ICU Nurses And Their Recommendations For Improvement

This theme explored the diverse coping strategies adopted by ICU nurses at Scottish Livingstone Hospital (SLH), alongside their actionable recommendations for strengthening interprofessional collaboration (IPC). The findings echo previous research but also present new insights specific to the under-resourced and culturally nuanced context of SLH.

5.6.1 Individual and Peer-Based Coping Mechanisms

This study found that ICU nurses at Scottish Livingstone Hospital frequently turn to personal faith, prayer, self-motivation, and peer bonding as primary coping strategies amid interprofessional collaboration (IPC) challenges. Nurses described how prayer and spiritual reflection helped them "hold on" emotionally during periods of feeling disregarded or silenced by other professionals. These coping mechanisms mirror findings by Donovan (2018) and Harrad (2019) who emphasized the significance of spirituality in managing emotional exhaustion in African healthcare settings. Peer support was also key, as nurses mentioned debriefing each other, sharing jokes, and venting frustrations informally as a way to decompress.

This resonates with another scholar who noted that peer solidarity often acts as a buffer against emotional burnout in morally distressing environments (Duijs et al., 2024). Additionally, other researchers concluded in their studied that informal peer interactions served as a valuable source of psychological safety and professional validation in the face of hierarchical marginalization (Durrah, 2023).

Beyond emotional support, nurses described self-driven professionalism such as ethical conduct, diligent patient care, and advocating for patients as a way to cope with collaboration gaps. Some used documentation and reporting as a method of asserting their voices professionally, even when they felt unheard. This echoes Holm (2022)who observed that marginalized nurses often focus on task completion and ethical rigor as a means of regaining a sense of agency. However, it contrasts with Gommis (2025), who argued that overreliance on internalized coping can lead to emotional suppression and long-term disengagement if not met with structural support. These findings demonstrate that while nurses show resilience, the burden of coping often falls on individuals rather than on systems designed to support collaborative practice.

5.6.2 Adaptive and Informal Collaborative Strategies

In response to systemic collaboration failures, ICU nurses at SLH relied heavily on informal strategies such as repeated follow-ups, verbal escalations, and personally chasing down delayed services to safeguard patient care (Rhys and Benwell , 2024). These workaround behaviors were viewed as necessary in an environment where formal systems frequently failed. One nurse shared that persistent reminders to allied professionals were often the only way to get things done. This aligns with findings by some authors who documented similar workaround strategies among African healthcare workers facing organizational inefficiencies . Furthermore, Xyrichis and Lowton (2018)cautioned that although these strategies ensure short-term functioning, they risk concealing deeper issues that require organizational intervention. In the same vein, Kossek, (2023) observed that workaround culture can become normalized, undermining formal communication systems and accountability structures.

Despite using these adaptive strategies, participants noted that they frequently felt unsupported by leadership, especially when raising concerns through formal reporting mechanisms like incident logs. The feeling that complaints "went nowhere" contributed to frustration and a sense of futility. This is echoed in Wubben et al. (2021), who emphasized that leadership responsiveness is a core determinant of collaborative effectiveness and team morale Ramsay (2025) also highlighted that unacknowledged reporting erodes trust in the system and increases staff disengagement. Conversely, studies like Papaziana (2023) found that structured feedback loops and active managerial presence improved the rate of interprofessional cooperation and reduced burnout in high-acuity units. The findings from SLH therefore highlight both the strengths and limitations of informal coping, reinforcing the need for systemic accountability and leadership engagement.

5.6.3 Recommendations for Systemic Improvement

ICU nurses offered forward-thinking recommendations aimed at long-term structural improvements in IPC. Key suggestions included appointing a dedicated critical care director, improving multidisciplinary team (MDT) meetings, and implementing orientation programs for all new ICU personnel. These recommendations reflect a recognition that the IPC challenges are not just relational but institutional. The call for leadership representation aligns with Wubben et al. (2021) who found that strong, visible leadership promotes collaborative cultures and improves role clarity. Nurses also emphasized that consistent and well-attended MDT meetings could enhance communication and coordination. This is supported by scholars who argued that regular interdisciplinary meetings serve as a platform for negotiation, respect-building, and alignment of care goals(Walton et al., 2019; Schmid et al., 2022).

Furthermore, participants advocated for joint continuing professional development (CPD) sessions where doctors, nurses, and allied professionals could learn and train together. This would promote mutual understanding, reduce power imbalances, and foster teamwork from an early stage. Their views echo those of many who emphasized that interprofessional education (IPE) is critical for cultivating collaborative practice competencies (Keshmiri, Rezai and Tavakoli, 2020; Mohamed, Peck and Senekal, 2024). Sabone et al. (2021) also highlighted in their Botswana-based study that poor role understanding across professions contributes to tension and fragmentation in team settings.

However, implementing such programs in low-resource settings like SLH may be challenging due to funding and staffing constraints, as noted by the World Health Organization (2021). Despite these barriers, the fact that nurses themselves are advocating for IPE and systemic reform reflects a deep-rooted desire for sustainable change, moving beyond coping to transformation.

5.7 Conclusion

This study explored the experiences of Intensive Care Unit (ICU) nurses regarding interprofessional collaboration (IPC) at Scottish Livingstone Hospital. The findings unveiled a complex interplay of systemic, relational, and structural challenges encountered by nurses. Despite exhibiting resilience through individual and peer-based coping mechanisms, the experiences of these nurses highlighted persistent issues such as insufficient communication, unclear role definitions, power imbalances, and a lack of leadership support. Such factors significantly hindered collaboration, leading to professional dissatisfaction and potentially compromising the quality of patient care. Conversely, the nurses also suggested practical and forward-thinking solutions aimed at enhancing team dynamics and operational frameworks. Their insights not only encapsulate current challenges but also signify a strong desire for advancement facilitated by inclusive leadership, collaborative professional development, and the establishment of formalized structures. Addressing these deficiencies could significantly enhance ICU team performance and improve both staff welfare and patient outcomes, particularly in Botswana and similar healthcare settings.

5.8 Strengths and limitations of the study

5.8.1 Strengths

This study's primary strength lies in its qualitative design, which enabled an in-depth exploration of ICU nurses' lived experiences with interprofessional collaboration at Scottish Livingstone Hospital. The use of semi-structured interviews allowed participants to express their views freely, generating rich, detailed, and context-specific data. This approach facilitated a deeper understanding of the interpersonal, systemic, and organizational factors influencing collaboration in a resource-limited ICU setting. Furthermore, the study's relevance is heightened by its focus on a real-world context an under-researched hospital in Botswana making the findings valuable for informing policy and practice in similar healthcare environments.

5.8.2 Limitations

Despite its strengths, the study had several limitations. It was conducted at a single district hospital with a small sample size, which restricts the generalizability of the findings to other settings. The limited scope may not reflect the broader experiences of ICU nurses in different regions or healthcare systems. Additionally, participants may have withheld or softened their responses due to concerns about confidentiality or fear of professional repercussions, which could introduce response bias. Time constraints also limited opportunities for prolonged engagement with participants, which could have further enriched the data. Future research with a broader sample and multi-site approach could help address these limitations.

5.8.3 Mitigation of Limitations

To address the study's limitations, several measures were employed to enhance credibility and trustworthiness. Purposive sampling ensured that participants had relevant ICU experience, thereby enriching the quality of data collected. Member checking was used to verify the accuracy of transcribed data and interpretations, helping reduce researcher bias and enhancing credibility. Anonymity and confidentiality were emphasized throughout the process to create a safe environment for honest sharing, which minimized response bias. Additionally, triangulation was achieved by comparing data across participants to identify consistent patterns and discrepancies. Detailed documentation of the research process and reflexivity helped improve transparency, allowing readers to assess the rigor of the study and its transferability to similar contexts.

5.9 Implications for Practice

The findings from this research reveal pivotal challenges and opportunities concerning interprofessional collaboration in ICU environments, particularly within resource-limited institutions like Scottish Livingstone Hospital. These results bear significant practical implications for nursing practice, education, management, and research. Addressing these implications can foster improved collaborative teamwork, empower ICU nurses, and enhance patient outcomes.

5.9.1 Nursing Practice

Should the study's findings be implemented, ICU nurses would gain increased opportunities to engage meaningfully in interprofessional decision-making processes. This engagement could rectify the existing marginalization where nurses' contributions are frequently overlooked. Enhanced communication and clarity of roles would empower nurses to assert their clinical judgments with confidence, thereby minimizing the risk of medical errors and improving patient safety and continuity of care. Furthermore, fostering mutual respect across professions could alleviate moral distress among nurses and bolster professional satisfaction.

5.9.2 Nursing Education

The study underscores the necessity for the incorporation of interprofessional education (IPE) into both undergraduate and postgraduate nursing curricula. Educating nurses alongside other health professionals in simulated or authentic collaborative environments would promote teamwork from the outset. This approach will not only bridge communication gaps but also foster confidence in collaborative roles. Nurses trained in such contexts are significantly more likely to advocate for themselves and their peers, further promoting equality and respect within practice environments.

5.9.3 Nursing Management

Nurse leaders must acknowledge and address systemic barriers to effective IPC, including entrenched hierarchies and ambiguous reporting lines. Based on this study, the implementation of structured communication strategies (such as regular interprofessional meetings and feedback mechanisms) would afford nurses safer platforms to articulate clinical concerns. Managers should also exemplify collaborative behaviors and endorse mentorship programs that enhance nurses' leadership skills, which can mitigate feelings of inferiority and powerlessness.

5.9.4 Nursing Research

The study reveals substantial gaps in the current IPC literature from the perspective of nurses operating in resource-constrained ICUs. Future research endeavors could evaluate interventions such as joint training workshops, structured interprofessional rounds, or role-clarification tools.

Moreover, comparative studies across various settings in Botswana and the region could ascertain whether the challenges reported at SLH are widespread or specific to the context. This evidence could subsequently inform national IPC policies and clinical guidelines.

5.10 Recommendations

5.10.1 Nursing Practice

It is recommended that ICU nurses actively engage in interprofessional meetings and decision-making processes to enhance their visibility and voice within the healthcare team. Establishing structured communication protocols, such as standardized handover tools and daily multidisciplinary rounds, can promote shared understanding and accountability across professions. Furthermore, fostering a culture of mutual respect and recognition for each team member's contributions will help reduce intimidation and improve collaboration.

5.10.2 Nursing Education

Nursing curricula should be revised to integrate interprofessional education (IPE) as a core component. Training student nurses in collaborative competencies including communication, role clarity, and teamwork will prepare them to function effectively within multidisciplinary teams from the outset of their careers. Simulation-based IPE and joint case discussions with medical and allied health students should be encouraged to bridge theoretical knowledge with practical collaboration skills.

5.10.3 Nursing Management

Nurse managers should take the lead in creating environments that support interprofessional collaboration through policies, supervision, and mentorship. This includes organizing regular team-building activities, conflict resolution workshops, and continuing professional development focused on collaborative practice. Managers should also advocate for equitable inclusion of nurses in key decision-making platforms and ensure staffing levels allow meaningful participation in interdisciplinary care processes.

5.10.4 Nursing Research

Further research should explore the long-term impact of interprofessional collaboration on patient outcomes, staff morale, and retention in resource-limited settings like Scottish Livingstone Hospital. There is also a need for studies assessing the effectiveness of specific interventions, such as communication tools or training programs, in strengthening collaboration in ICUs. Mixed-method or longitudinal studies could provide deeper insight into the evolving dynamics of interprofessional relationships over time.

5.11 Further studies

Future research should investigate the dynamics of interprofessional collaboration across multiple healthcare institutions in Botswana in order to enhance the generalizability of research findings. Comparative studies that encompass both public and private intensive care units (ICUs) could effectively elucidate systemic strengths and weaknesses in collaborative practices. Furthermore, employing quantitative or mixed-methods approaches may yield statistical insights into the influence of collaborative efforts on patient outcomes and the wellbeing of healthcare staff. Additionally, future studies ought to incorporate the perspectives of various healthcare professionals, including physicians, pharmacists, and physiotherapists, to foster a more comprehensive understanding of interdisciplinary interactions. Longitudinal studies are encouraged to evaluate the enduring impacts of interventions designed to enhance interprofessional collaboration within critical care environments.

5.12 Dissemination and utilization of findings

The findings of this study will be disseminated to key stakeholders including the Ministry of Health, Botswana, Scottish Livingstone Hospital (SLH) management, and ICU staff through clinical meetings and written reports. A copy of the research will be deposited at the UNZA School of Nursing Sciences, UNZA Main Library, and SLH library for scholarly access. Findings will be presented at the graduate research dissemination forum and at professional conferences such as the Botswana Nurses Union (BONU) Congress and relevant interprofessional collaboration workshops.

Efforts will also be made to publish the results in peer-reviewed journals to reach a wider scholarly and professional audience. Executive summaries will be shared with the District Health Office (DHO) to inform policy and practice improvements in ICU settings.

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Appendices

Appendix A: Participant Information Sheet

Title of Study: Experiences of ICU Nurses on Interdisciplinary Collaboration at Scottish Livingstone Hospital

Researcher: Nametso Matlhodi, MSc Critical Care Nursing, University of Zambia

Contact Information: +267 744 297 71/ +260771569566

Hello, my name is Nametso Matlhodi. I am a postgraduate student pursuing a Master of Science in Critical Care Nursing at the University of Zambia. I am conducting a research study on the experiences of ICU nurses regarding interprofessional collaboration in Scottish Livingstone Hospital. I invite you to participate in this critical study.

Purpose of the Study: The purpose of this study is to explore and understand the experiences of ICU nurses in interdisciplinary collaboration within the ICU setting. This research aims to identify the strengths and challenges ICU nurses face in collaborating with other healthcare professionals to enhance patient care.

Procedures: If you agree to participate in this study, you will be asked to do an in-depth interview. The interview will be conducted individually and last approximately 45-60 minutes. During the interview, I will ask you about your experiences with interprofessional collaboration in the ICU and the coping strategies for these challenges. The interview will be audio-recorded with your permission to ensure accuracy in data collection.

Potential Risks: Participation in this study involves minimal risk. However, discussing your experiences may bring up emotional responses. If at any point you feel uncomfortable, you have the right to pause or stop the interview. Additionally, counseling services will be available to you if needed.

Benefits: While there may not be direct benefits to you as a participant, this study aims to provide valuable insights into the experiences of ICU nurses.

The findings may help improve interprofessional collaboration and patient care in the ICU, benefiting healthcare professionals and patients.

Voluntary Participation: Your participation in this study is entirely voluntary. You have the right to withdraw from the study without any consequences. Your decision to participate or not will not affect your job or relationship with the hospital in any way.

Confidentiality: All information collected during the study will be kept confidential. Your identity will not be revealed in any reports or publications resulting from this study. Data will be stored securely, and only the researcher can access it. Any identifying information will be removed from the transcripts to ensure anonymity.

Contact Information: If you have any questions or need further clarification about the study, please do not hesitate to contact me, Nametso Matlhodi, at

/ +267 74429771 / +260771569566.

Thank you for considering participation in this study. Your experiences and insights are invaluable, and your contribution will be greatly appreciated. If you agree to participate, please sign the attached consent form.

Sincerely,

Nametso Matlhodi
MSc Critical Care Nursing
University of Zambia

Appendix B: Consent Form

Consent Form

Experiences of ICU nurses on interprofessional collaboration at Scottish Livingstone Hospital (SLH), Molepolole, Botswana

INFORMED CONSENT FORM FOR STUDY

Title of the proposed study: Experiences of ICU nurses on interprofessional collaboration at Scottish Livingstone Hospital (SLH), Molepolole, Botswana

Investigators:
Nametso Bhinoeh Matlhodi,
University of Zambia
Contact: +267 74429771 /+260771569566,
PO Box 402274, Broadhurst, Gaborone

Background and rationale for the study:

Interprofessional collaboration is crucial in the ICU setting to ensure high-quality patient care. This study aims to explore the experiences of ICU nurses regarding interprofessional collaboration at Scottish Livingstone Hospital (SLH) in Molepolole, Botswana. Understanding these experiences will provide insights into the challenges and facilitators of effective teamwork, ultimately contributing to improved healthcare delivery.

Purpose:

This study aims to gain insights into the experiences of ICU nurses in interprofessional collaboration. You are being asked to participate because your experiences and insights as an ICU nurse at SLH are valuable to understanding this phenomenon. This study does not involve any experimental procedures.

Procedures:

Should you agree to participate, you will be asked to participate in an interview lasting approximately 45-60 minutes. During the interview, you will be asked questions about your experiences with interprofessional collaboration, the barriers and facilitators you encounter, and the coping strategies you employ. The interview will be audio-recorded to ensure data collection accuracy.

Who will participate in the study?

The study will include ICU nurses currently working at Scottish Livingstone Hospital. We expect to interview less than 20 nurses, and each participant will be involved in the study for one interview session.

Risks/Discomforts:

The study possesses an unlikelihood of injuries with minimal risk. However, you may feel uncomfortable discussing challenges and stressors related to your work. You may choose not to answer any questions that make you uncomfortable or withdraw from the study at any time. If this study may evoke strong emotions of distress, you will be provided with counselling services/psychological support from qualified professionals.

Benefits:

The anticipated benefits of this study include contributing to a better understanding of interprofessional collaboration in the ICU, which may lead to improvements in team dynamics and patient care. While there may be no direct benefit to you, your participation will help inform strategies to enhance a healthy working environment for ICU nurses

Alternatives:

Participation is strictly on a voluntary basis. If you chose not to participate no action will be taken against nor will you lose any benefits you are entitled to you. You are also free to withdraw from the study at any point if you feel the need to without any consequence.

Cost:

There are no costs associated with participating in this study. You will not incur any expenses for partaking in the study.

Compensation for participation in the study:

There is no compensation plan for participating in this study.

Reimbursement:

There will be no reimbursement since you will be interviewed in the facility in between working hours, most likely during lunch. In that regard, however you will be provided with lunch since the interview may cause an inconvenience cutting into lunch hours.

Questions:

If you have any questions, you can contact the principal researcher and they will be happy to clarify any concerns to assist you. Contacts have been provided

Statement of voluntariness:

Your participation in this study is voluntary. You are free to choose whether or not to participate. If you decide to participate, you may withdraw at any time without any penalty or loss of benefits to which you are entitled.

Confidentiality:

The results of this study will be kept strictly confidential and used only for research purposes. My identity will be concealed in as far as the law allows. My name will not appear anywhere on the coded forms with the information. Paper and computer records will be kept under lock and key and with password protection respectively.

The interviewer has discussed this information with me and offered to answer my questions. For any further questions, I may contact the Chairperson, UNZABREC on the following details_____

STATEMENT OF CONSENT/ASSENT

..... has described to me what is going to be done, the risks, the benefits involved and my rights regarding this study. I understand that my decision to participate in this study will not alter my usual medical care. In the use of this information, my identity will be concealed. I am aware that I may withdraw at anytime. 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 am voluntarily agreeing to participate. A copy of this form will be provided to me.

Name:…….Signature of participant ……..Age..……
Date (DD/MM/YY)……

Name of Witness…….. Signature of Witness……
Date (DD/MM/YY)…….
Name……Signature of parent or guardian for minors ……
Date(DD/MM/YY)……

Name……..Signature of Interviewer ……Date (DD/MM/YY)……...

If you have any further questions please contact the University of Zambia Biomedical Research Ethics Committee:

Telephone: +260977925304 Ridgeway Campus
Telegrams: UNZA, LUSAKA P.O. Box 50110
Telex: UNZALU ZA 44370 Lusaka, Zambia
Fax: + 260-1-250753

E-mail: unzarec@unza.zm

Assurance No. FWA00000338 IRB00001131 of IOR G0000774

Questions about participants' rights:

If you have any questions or concerns about your rights as a research participant, you can contact the ethics committee at:

Health Research Development Committee (HRDC)

Ministry of Health Botswana

Chairperson

Dr Khumo Seipone (seipone@gov.bw)

Organisation administrator's name or contact person

Mr. Kgomotso Motlhanka (kgmotlhanka@gov.bw)

Telephone number: 267 36 32 466

Fax Number: 267 39 10 646

Physical address

Ministry of Health Government EnclavePlot No. 54609 Gaborone Botswana

Postal address

Ministry of Health P/Bag 0038 Gaborone Botswana

Country

Botswana

Institution website address

They will provide you with information and address any queries regarding your rights.

Consent form- Setswana Language

Ministry of Health

FOMU YA TUMELLO

1. **Titlo ya patlisiso**

Ditlhopho tsa borai ka ga ICU mo tirong ya tshebeletso mo Scottish Livingstone Hospital (SLH), Molepolole, Botswana.

2. **Introduktion**

Tshebeletso ya borai ke ya botlhokwa mo setlheng sa ICU go netefatsa tlhokomelo e e kgotsofatsang mo baboledi. Patlisiso ena e sekaseka ditlhopho tsa borai ka ga ICU ka ga tshebeletso ya borai mo Scottish Livingstone Hospital (SLH) mo Molepolole, Botswana. Go tlhaloganya ditlhopho tsena go tla fa lesedi ka ga mathata le go oketsa tshebeletso e e amanang le tirisanommogo.

3. **Mafoko a Patlisiso**

Patlisiso ena e leka go bona lesedi ka ga ditlhopho tsa borai ka ga ICU mo tshebeletso ya borai. O kopa go nna le karolo ka gonne ditlhopho le lesedi la gago jaaka borai ka ga ICU mo SLH di na le botlhokwa go tlhaloganya kgang eno. Patlisiso ena e sitwa go akaretsa mekgwa e amanang le borai.

4. **Dikhetho Tsa Go Kgotsofatsa**

Go amogela: Boroai bo se na molato ba ba dirang mo ICU ya SLH ka nako ya go bokgoni go phatlalatsa le go na le phuthelo ya go feta ga ngwaga e le tshela mo khumo e amanang le botho, ngwaga, kgotsa boikutlo jwa thuto.
Go thibela: Ba ba ka se amogelwe mo patlisong ena ke bao ba sa leng mo nakong ya go bokgoni, go akaretsa le ba ba bolailweng kgotsa ba le mo borai (borai, boikhutso, maemedi/borai, boikhutso, borai).

5. **Mekgwa ya Patlisiso**

Ena ke patlisiso e e sa amaneng le borai, e amanang le boleng. Fa o amogela, o tla kopa go nna le karolo mo go buisanang le mongwe ka nako ya metsotso e ka nna 45–60. Puisano e tla sekaseka ditlhopho tsa gago ka ga tshebeletso ya borai, puisano, dikhonkrwe tsa sehlopha, le mathata mo ICU. Puisano e tla ngwaga ka fa e amanang le borai ka fa go kgotsofatsa. Go ka nna boroai ba 5–10 ba ba buisanang, le patlisiso e tla tswelela ka dinyaga tse tharo.

6. **Mekgwa e Meng**

Go nna mo patlisong ena go a amanang le. Patlisiso e sa amaneng le borai; ga go na borai jo bo amanang le borai kgotsa dikhumamedi tse dingwe. Fa o kgetha go se nne le karolo, go tla se ama tiro ya gago, maemo a borai, kgotsa diphetho dingwe tse o di amanang le tsona.

7. **Dikotsi le/ kapa mathata**

Go na le dikgotsi tse di kgethegileng tse di amanang le patlisiso ena. Diphetho dingwe di ka dira gore o ikutlwe o sa itumela kgotsa di ka buisa mekwalo e amanang le tiro ya gago. O ka fetola diphetho dipe kgotsa o ka tshwara ka nako e e amanang le borai. Fa o ikutlwa o kgathogela, mekgwa ya borai e tla abelwa.

8. **Go Tlhokomela Ga Melemo e Amanang le Patlisiso**

Ga go na mekgwa e amanang le borai e e ka amanang le go amogela. Mekgwa ya borai e tla abelwa go go tshegetsa fa o lebane le kgathogelo e amanang le borai mo puisanang.

9. **Melemo**

Melemo e e lebeletsweng ya patlisiso ena e akaretsa go thusana go tlhaloganya tshebeletso ya borai mo ICU, e e ka amanang le go oketsa dikhonkrwe le tlhokomelo ya baboledi. Le fa go ka se na melemo go wena, go nna le karolo ga gago go tla thusa go akaretsa mekgwa go oketsa maemo a borai a borai.

10. **Tshedimosetso e e Ntshwa**

Mo nakong ya patlisiso, o tla itsisiwe ka nako ya go tla go diragalang go amanang le go amogela go tswelela.

11. **Dikostle mo ba Ba Amanang le Borai le Tlhopho**

Go na le dikostle tse di amanang le go nna mo patlisong ena. O ka se amoge ditlhopho ka go nna mo patlisong, ka gonne go na le ditlhopho tse di amanang le go tsweletsa borai. Go tswa mo, go tla se na go kgothalediwa ka gonne o tla buisanya mo borai ka nako ya borai, go kgethegile ka nako ya borai. Ka kgopolo eo, o tla abelwa borai ka gonne puisano e ka kgothaletsa go bopa.

12. **Go Nna le Karolo ka Go Ikgetha**

Go nna mo patlisong ena go a amanang le. O ka kgetha go se nne le karolo ntle le go amogela kgotsa go se amoge. Tshebeletso ya gago e ka se ama boemo jwa gago kgotsa tshebeletso ya gago mo sehlopheng.

13. **Tlhopho ya go Tlhoka Go Ikwela**

O na le tokelo ya go kgetha go ikwela mo patlisong ntle le go amogela. Fa o dira jalo, go se na tshedimosetso e e amanang le borai e tla tshwarwa, le mekgwa ya gago e amanang le borai e tla tswelela ka fa e amanang le borai.

14. **Ditlhopho, Go Anamela le Go Fana**

Tshedimosetso yotlhe e e bokwang mo patlisong ena e tla nna e sa amanang le borai. Lebitso la gago le tla se bonwe mo diphetho tsotlhe, le mekgwa e tla amanang le go boloka. Le fa go ntse jalo, sehlopha sa patlisiso se tla ba le borai go ya ka fa go amanang le borai ka fa go amanang le borai.

15. **Tlhopho e Amanang le Tlhokomelo**

Tshedimosetso e e bokwang e ka amanang le patlisiso e amanang le borai mo mekgweng e amanang le borai. Le fa go ntse jalo, borai ba gago bo tla bolokwa, le ga go na tshedimosetso e e amanang le go se amoge borai.

16. **Ke Mang go Ikopanya le Ene**

Fa o na le dipotso ka ga patlisiso kgotsa ditlhopho tsa gago jaaka moithuti, o ka ikopanya le:

Moithuti wa Patlisiso:

Nametso Bhinoeh Matlhodi

Fono: +267 74429771 / +260771569566

Email: nametsomatlhodi@gmail.com

Ka ga ditlhopho tsa gago:

Komiti ya Patlisiso ya Bophelo ya University of Zambia

Fono: +260 977925304

Email: unzabrec@unza.zm

17. **Tshedimosetso ya Tumelo**

Ka go saena fomu ena, o netefatsa gore o baletse tshedimosetso e e fanweng, o tlhaloganya maikaelelo a patlisiso, le o amogela go nna le karolo. O itsiwe gore go nna le karolo go a amanang le, le o ka ikwela go se amoge. Fomu e e amanang le ena e tla abelwa go gago.

Lebitso la Moithuti: _____

Saeno: _____

Letsatsi: _____

Lebitso la Phetogo: _____

Saeno: _____

Letsatsi: _____

Lebitso la Moithuti wa Puisano: _____

Saeno: _____

Letsatsi: _____

Appendix C: Data Collection Tool

STUDY TITLE: Experiences of ICU nurses on interprofessional collaboration at Scottish Livingstone Hospital (SLH), Molepolole, Botswana

INTERVIEWER: NAMETSO B. MATLHODI

PARTICIPANT NUMBER:

TIME OF INTERVIEW:

DEMOGRAPHIC QUESTIONS:

1. What is your age?
2. What is your gender?
3. How many years have you been working as a nurse?
4. How many years have you been working in the ICU?
5. What is your highest level of education?
6. Do you have any specializations or additional certifications? If yes, please specify.
7. Have you worked in other healthcare settings before joining this ICU? If yes, please specify.
8. Have you participated in any professional development or training programs recently? If yes, please specify.

INTERVIEW QUESTIONS

1. COMMUNICATION

1. What is your understanding of the phrase “interprofessional collaboration” in the context of ICU care?
2. How do you and other ICU professionals communicate with each other regarding patient care?
3. Can you provide specific examples of how effective communication has facilitated better patient care or improved team functioning in your experience?
4. How do communication challenges impact patient care and team dynamics?

***2*. ROLES AND RESPONSIBILITIES**

5. Which professions do you usually work with in the ICU, and what are their specific roles and responsibilities?
6. How clearly defined are the roles and responsibilities of different team members in the ICU? Do you feel there is role clarity among the team?
7. Can you share an example of how role clarity or ambiguity has affected interprofessional collaboration?

3. TEAMWORK

8. What strategies do you use to promote teamwork and collaboration among ICU professionals?
9. Can you provide an example of a situation where teamwork was particularly effective or ineffective? What were the key factors in that situation?
10. How do team dynamics and interpersonal relationships influence the quality of collaboration in your ICU?

4. COLLABORATIVE PRACTICE

11. What specific barriers have you encountered in achieving effective interprofessional collaboration in the ICU?

12. How have you managed these barriers, and what strategies have you found effective in overcoming them?
13. Are there any support systems or resources at SLH that help you manage these collaboration challenges? Can you describe how they assist in improving collaborative practice?
14. Do you have any suggestions for enhancing interprofessional collaboration at SLH to improve patient care and team effectiveness?

DATA COLLECTION TOOL- SETSWANA LANGUAGE

STUDY TITLE: Maikutlo a baoki ba ICU ka tirisano ya ditsebeletso kwa Scottish Livingstone Hospital (SLH), Molepolole, Botswana

MOTHO YO O NEETSENG DIPOTSO: Nametso B. Matlhodi

NOMORO YA MOARABI:

Nako ya Puo ya Dipotso:

DIPOTSO TSA BOMORAFE:

1. O na le dingwaga tse kae?
2. Bong jwa gago ke eng?
3. O na le dingwaga tse kae o bereka jaaka mokaedi wa baoki?
4. O berekile mo ICU ka dingwaga tse kae?
5. Maemo a gago a thuto e e kwa godimo ke afe?
6. A o na le dikwalifikeshene tse di kgethegileng kgotsa dithutego tse dingwe tse o di dirileng? Fa ee, tlhalosa.
7. A o kile wa bereka mo mafelong a mangwe a kalafi pele ga o tsena mo ICU eno? Fa ee, tlhalosa.
8. A o kile wa tsenelela dithulaganyo tsa kgatelopele ya setsebi kgotsa mananeo a thuto go dira mo malatsing a bosigo? Fa ee, tlhalosa.

DIPOTSO TSA PUO YA DIPOTSO:

1. PUISETSO

1. tlhaloso ya gago ke eng ka lefoko le le reng "tirisano ya ditsebeletso" mo tirong ya ICU?
2. O buisana jang le setlhopha sa ditsebeletso tsa ICU ka ditaba tsa tlhokomelo ya balwetse?
3. O ka kgona go re fa dikai tsa jang fa puisano e e siameng e thusitse go tokafatsa tlhokomelo ya balwetse kgotsa tirisano ya setlhopha?
4. Mathata a puisano a ama jang tlhokomelo ya balwetse le thulaganyo ya setlhopha?

2. MAEMO LE MAIKUTLO

5. Ke ditsebeletso dife tse o dirisanang le tsone gantsi mo ICU, mme tiro ya tsone ke efe?
6. A ditiro le maikarabelo a maloko a setlhopha a tlhaloganngwa sentle mo ICU? A o ikutlwa jaaka maikarabelo a maloko a a tlhaloganngwa ka botlalo?
7. ka kgona go fa sekai sa kafa tlhaloganyo ya tiro kgotsa tlhakatlhakano e amileng tirisano ya setlhopha?

3. TIRISANO YA SETLHOPHA

8. Ke ditogamaano dife tse o di dirisang go tokafatsa tirisano ya setlhopha sa ICU?
9. ka kgona go fa sekai sa nako e tirisano ya setlhopha e neng e atlega sentle kgotsa e sa atlege? Mme mabaka a a neng a le teng ke afe mo seemong seo?
10. A dirisano ya setlhopha le kamano ya batho ba ba berekang mmogo e ama jang boleng jwa tirisano mo ICU ya lona?

4. TIRISANO E E NNETE

11. kile wa kopana le ditshwantsho dife tse di kgoreletsang tirisano e e siameng mo ICU?
12. dirile jang go kgona go fenya dikgoreletsi tse, mme ke ditogamaano dife tse o di boneng di atlegile go di fenya?
13. A go na le mananeo kgotsa dithulaganyo tse di teng mo SLH tse di go thusang go tokafatsa tirisano? O ka tlhalosa gore di thusa jang go tokafatsa tirisano e e siameng?
14. A o na le dikakanyo tsa go tokafatsa tirisano ya ditsebeletso kwa SLH go tokafatsa tlhokomelo ya balwetse le tirisano ya setlhopha?

Appendix D: Application For Ethical Approval

P O Box 402274 Gaborone,

Botswana

29th August 2024

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

Dear Sir/Madam

RE: Application for Ethical Approval to Conduct Research on "Experiences of ICU Nurses on Interprofessional Collaboration at Scottish Livingstone Hospital (SLH), Molepolole, Botswana"

I hope this letter finds you well. I am writing to formally request ethical approval from the Biomedical Research Ethics Committee at the University of Zambia to conduct a study entitled "Experiences of ICU Nurses on Interprofessional Collaboration at Scottish Livingstone Hospital (SLH), Molepolole, Botswana."

I am pursuing a Master of Science in Critical Care Nursing at the University of Zambia School of Nursing Sciences.

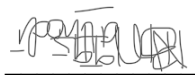
The required documents submitted include:

1. The full Research Proposal
2. The Abstract
3. Informed consent forms
4. Data collection tools
5. My curriculum Vitae

6. My Main Supervisor's curriculum vitae
7. My Main supervisor's approval for ethical submission
8. Copyright Declaration
9. Interview Questions
10. Permission letters
11. Budget
12. Certificate of Good Clinical Practice
13. Certificate of registration with the National Health Research Authority
14. Expedited Review receipt

I kindly request that the committee review my application and grant ethical approval to proceed with this research. Your authorization will enable me to contribute valuable insights to critical care nursing and the broader healthcare community.

Thank you for considering my application. I look forward to your favorable response. Yours sincerely,



Nametso Bhinoeh. Matlhodi

Master of Science in Critical Care Nursing School of Nursing
The University of Zambia

Appendix E: Approval Letter From UNZABREC

UNIVERSITY OF ZAMBIA BIOMEDICAL RESEARCH ETHICS COMMITTEE

Telephone: +260 977925304 Telegrams: UNZA, LUSAKA Telex: UNZALU ZA 44370 Fax: + 260-1-250753

Federal Assurance No. FWA00000338 IRB00001131 of IORG0000774 Ridgeway Campus P.O. Box 50110 Lusaka, Zambia E-mail: unzarec@unza.zm **NHRAR-REC No 2021-05-0002**

19th September 2024

Your REF. No. 5809-2024.

Ms. Nametso Matlhodi, University of Zambia, School of Nursing Sciences, P.O Box 50110,

Lusaka.

Dear Sir,

RE: EXPERIENCES OF ICU NURSES ON INTERPROFESSIONAL COLLABORATION AT SCOTTISH LIVINGSTONE HOSPITAL (SLH), MOLEPOLOLE, BOTSWANA (REF. NO. 5809-2024)

The above-mentioned research proposal was presented to the Biomedical Research Ethics Committee on 19th September, 2023. 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. 5809-2024.

This number should be used on all correspondence, consent forms and documents as appropriate.

i. **APPROVAL DATE : 19th September 2024** ii. **TYPE OF APPROVAL : Standard**

iii. **EXPIRATION DATE OF APPROVAL : 18th September 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.

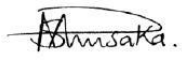
x. **OTHER**: Please be reminded to send in copies of your research findings/results for our records. You are also required to submit electronic copies of your publications in peer-reviewed journals that may emanate from this study. Use the online portal: unza.rhinno.net for further submissions.

Yours sincerely,

Prof. Sody Mweetwa Munsaka, BSc., MSc., PhD

CHAIRPERSON

Tel: +260977925304
E-mail: s.munsaka@unza.zm



Appendix F: Permission Letter To The Ministry

The University of Zambia
School of Nursing Sciences
P O Box 50110
Lusaka,
Zambia
03/10/2024

Research and Development Division
Ministry of Health
Private Bag 0038
Gaborone, Botswana

Dear Sir/Madam

RE: Request for permission to conduct research study at Scottish Livingstone Hospital

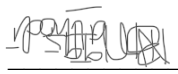
I trust this letter finds you well. I am enrolled as a second-year Master of Science in Critical Care Nursing student at the University of Zambia seeking permission to conduct a research study entitled "Experiences of ICU Nurses on Interprofessional Collaboration at Scottish Livingstone Hospital (SLH), Molepolole, Botswana."

This study is part of my academic requirements. My ultimate goal is to enhance patient care and team dynamics. I intend to conduct interviews with the ICU nursing staff at SLH, and I will ensure that all ethical standards, including informed consent and confidentiality, are maintained throughout the study.

Please find the ethical clearance from the University of Zambia's Research Ethics Committee attached. I would be grateful if you could grant me the necessary permissions to proceed with my study at Scottish Livingstone Hospital.

Your approval and support in this academic pursuit will be highly valued. I can be reached at nametsomatlhodi@gmail.com or +267 74429771/ +260 771569566 if further information is required. Thank you for your time and consideration.

Yours sincerely,



Nametso Bhinoeh Matlhodi
MSc in Critical Care Nursing
University of Zambia

Permission Letter To The Facility

The University of Zambia
School of Nursing Sciences
P O Box 50110
Lusaka,
Zambia
21/10/2024

Head of Research Committee
Scottish Livingstone Hospital
Private Bag 001
Molepolole, Botswana

Dear Sir/Madam

Re: Request for Permission to Conduct Research Study in SLH Intensive Care Unit (ICU)

I trust this letter finds you well. I am enrolled as a second-year Master of Science in Critical Care Nursing student at the University of Zambia seeking permission to conduct a research study entitled "Experiences of ICU Nurses on Interprofessional Collaboration at Scottish Livingstone Hospital (SLH), Molepolole, Botswana."

This study is part of my academic requirements. My ultimate goal is to enhance patient care and team dynamics. I intend to conduct interviews with the ICU nursing staff at SLH, and I will ensure that all ethical standards, including informed consent and confidentiality, are maintained throughout the study.

Please find the ethical clearance from the University of Zambia's Research Ethics Committee attached. I would be grateful if you could grant me the necessary permissions to proceed with my study at Scottish Livingstone Hospital.

Your approval and support in this academic pursuit will be highly valued. If you need further information, I can be reached at nametsomatlhodi@gmail.com or +267 74429771/ +260 771569566. Thank you for your time and consideration.

Yours sincerely,

Nametso Bhinoeh Matlhodi
MSc in Critical Care Nursing
University of Zambia

Appendix G: Approval Letters From Ministry And Facility

TELEPHONE: 363 2500
FAX: 391 0647
TELEGRAMS: RABONGAKA
TELEX: 2818 CARE BD

REPUBLIC OF BOTSWANA

MINISTRY OF HEALTH
PRIVATE BAG 0038
GABORONE

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

Health Research and Development Division

Notification of IRB Review: **New application**

Nametso B. Matlhodi
PO Box 31910
Lusaka
Zambia

Dear Nametso B. Matlhodi

PROTOCOL TITLE: EXPERIENCES OF ICU NURSES ON INTERPROFESSIONAL COLLABORATION AT SCOTTISH LIVINGSTONE HOSPITAL (SLH), MOLEPOLOLE, BOTSWANA.

Review Type: Expedited/Health Research and Development Division
Review Date: 10th October 2024
Approval Date: 14th October 2024
Effective Date: 14th October 2024
Expiration Date: 13th October 2025
Risk Determination: Less than Minimal Risk

Thank you for submitting new application for the above-referenced protocol. **The permission is granted to conduct the study.**

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 fulfillment 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@gov.bw or 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 Kgomotso 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

Mr Abia Sebaka
for/PERMANENT SECRETARY

MINISTRY OF HEALTH
RESEARCH DIVISION
14 OCT 2024
PIBAG 0038, GABORONE
HEALTH POLICY RESEARCH & DEVELOPMENT

TELEPHONE: 590 8000
FAX: 591 5065
TOLL FREE: 0 800 600 908
REFERENCE:

REPUBLIC OF BOTSWANA
Ministry of Health

SCOTTISH LIVINGSTONE HOSPITAL
PRIVATE BAG 001
MOLEPOPOLE

Reference: SLH 6/17/1 IX

23rd October 2024

To: Nametso B. Matlhodi
University of Zambia
P O Box 50110
Lusaka
Zambia

EXPERIENCE OF ICU NURSES ON INTERPROFESSIONAL COLLABORATION AT SCOTTISH LIVINGSTONE HOSPITAL, MOLEPOLOLE, BOTSWANA

Reference is made to your request dated 21st October 2024 to carry out a study for the above stated research protocol in Scottish Livingstone Hospital.

Your approval by the Health Research and Development Committee (HRDC) ref no: HPRD 6/14/1 is noted.

Permission is therefore granted to conduct the above mentioned research.

You are requested to adhere to the highest standards of medical ethics and to handly any information obtained during the study with confidentiality.

Furthermore, you are requested to share the findings of your study with the management of SLH upon completion.

Thank you.

Yours Faithfully

Dr. S. S Anderson
Ag. Chief Medical Officer