EXPERIENCES OF CRITICAL CARE NURSES IN END-OF-LIFE CARE TO ADULT PATIENTS IN THE CRITICAL CARE UNIT, KENYATTA NATIONAL HOSPITAL

BY

LINET AKOTH OKORE

H56/40807/2021

A RESEARCH DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN CRITICAL CARE NURSING OF THE UNIVERSITY OF NAIROBI.

NOVEMBER, 2023

DECLARATION

I Linet Akoth Okore; H56/40807/2021, declare that this dissertation is my original work and has not been submitted anywhere else for academic purposes in any learning institution.

Signed..... Date: 9/11/2023

CERTIFICATE OF APPROVAL

This research dissertation has been submitted to the University of Nairobi with our approval as supervisors:

Dr Eunice Omondi (BScN, MScN, PhD)

Senior Lecturer

Department of Nursing Sciences

Faculty of Health Sciences

University of Nairobi

Signature……Date…9/11/2023.

Dr Dorcas Maina (BScN, MScN, PhD)

Senior Lecturer

Department of Nursing Sciences

Faculty of Health Sciences

University of Nairobi

Signature……Date…9/11/2023……

Head of Department

Dr Emma Matheka (BScN, MScN, PhD)

Senior Lecturer

Department of Nursing Sciences

Faculty of Health Sciences

University of Nairobi

Signature……Date…09/11/2023……

DEDICATION

This dissertation is dedicated to my beloved family, whose steadfast support and encouragement have played a pivotal role in guiding me through my academic journey. I express my gratitude to my husband, David Ochola, for consistently believing in me and instilling in me the virtues of hard work and perseverance. I am eternally grateful for the sacrifices you have put up to contribute to the success of this endeavor. To my beloved children, Lindell, Lincoln and Daniella, you are the driving force behind my unwavering commitment to improving patient care. Through this dissertation, I strive to honor your resilience, strength, and infinite potential.

ACKNOWLEDGEMENT

I tender my profound regard to the divine guidance of God, which has illuminated my academic journey, leading me to this dissertation.

My heartfelt gratitude goes to my esteemed dissertation supervisors, Dr. Eunice Omondi and Dr. Dorcas Maina. Their expert counsel, unwavering support, and insightful feedback have played an indispensable role in shaping this research endeavor. Working under their mentorship has been a privilege and an inspiration.

I extend my gratitude to the University of Nairobi's Department of Nursing Sciences lecturers, whose exceptional teaching and guidance have broadened my knowledge and enriched my academic experience.

I am deeply thankful to the Kenya Defense Forces for their generous sponsorship and unwavering support throughout my academic journey, including granting me study leave. Their investment in my education has allowed me to pursue this dissertation and expand my knowledge in nursing.

I express sincere appreciation to the research participants whose insights and cooperation were pivotal to the accomplishment of this study. I extend a heartfelt recognition to Kenyatta National Hospital for their infrastructure and support, which greatly facilitated this study. Their commitment to healthcare excellence is truly valued.

I recognize and appreciate the invaluable impact of my colleagues and friends who provided a supportive and collaborative environment throughout my studies. Their intellectual discussions, shared experiences, and encouragement have been great sources of inspiration.

Lastly, I owe an immeasurable debt of gratitude to my family; Parents, Siblings, Husband and children. Their unwavering love, understanding, and patience sustained me through this experience.

TABLE OF CONTENTS

DECLARATION ..... **Error! Bookmark not defined.**
CERTIFICATE OF APPROVAL ii
DEDICATION iii
ACKNOWLEDGEMENT iv
TABLE OF CONTENTS v
LIST OF FIGURES viii
LIST OF TABLES ix
OPERATIONAL DEFINITION OF TERMS x
LIST OF ABBREVIATIONS xii
ABSTRACT xiv
CHAPTER ONE: INTRODUCTION 1
1.1 Background of the Study 1
1.2 Statement of the Problem 4
1.3 Justification of the Study 5
1.4 Significance of the Study 6
1.5 Main Research Questions 7
1.5.1 Specific Research Questions 7
1.6 Broad Objectives 7
1.6.1 Specific Objectives 7
1.7 The Assumptions of the Study 8
CHAPTER TWO: LITERATURE REVIEW 9
2.1 Introduction 9
2.2 The Understanding of Critical Care Nurses on Provision of EOLC 9
2.2.1 Holistic Care 9
2.2.2 Shifting Roles and Knowledge of Critical Care Nurses 10
2.2.3 Family Support 11
2.3 Critical Care Nurses' Preparedness in the Provision of End-of-Life Care 12
2.3.1 Perceptions on Preparedness. 12
2.3.2 Knowledge and Training 13
2.3.3 Communication Skills 14

2.3.4 Teamwork Skills 15
2.4 Barriers Critical Care Nurses' Experience in End-of-Life Care 15
2.4.1 Challenging Working Environment 15
2.4.2 Decision Making Challenge 16
2.4.3 Emotional and Psychological Burden 16
2.4.4 Inadequate Knowledge 17
2.5 Theoretical Framework 18
2.5.1 Application of the Comfort Theory to the Study 19
2.6 Conceptual Framework 20
CHAPTER THREE: METHODOLOGY 22
3.1 Introduction 22
3.2 Study Design 22
3.2.1 Descriptive Phenomenology 22
3.3 Study Site 23
3.4 Study Population 23
3.5 Selection of participants 24
3.5.1 Inclusion Criteria 24
3.5.2 Exclusion Criteria 24
3.6 Study variables 24
3.7 Sample Size Determination 25
3.8 Sampling Method 25
3.9 Recruitment Process 26
3.10 Data Collection 27
3.10.1 Data Collection Tools 27
3.10.2 Pretesting of the Interview guide 28
3.11 Data Management and Analysis 28
3.11.1 Data collection method 28
3.11.2 Transcribing process 29
3.11.3 Data Analysis 29
3.12 Presentation of research findings 30
3.13 Study Limitation 30
3.14 Ethical Considerations 31

3.15 Research Rigor 33
CHAPTER FOUR: RESULTS 34
4.1 Introduction 34
4.2 Characteristics of Study Participants 34
4.3 Emerging Themes from the Interviews 35
4.3.1 Promoting a Dignified End 36
4.3.1.1 Patient Comfort 36
4.3.1.2 Addressing the Biopsychosocial Needs 38
4.3.2 Professional Preparedness 40
4.3.2.1 Training 40
4.3.2.2 Communication Skills 41
4.3.2.3. Counseling Support 42
4.3.3 Inadequate Resources 43
4.3.3.1 Inadequate Equipment 43
4.3.3.2 Inadequate Staff Support 44
4.3.3.3 Lack of Standard Operating Procedures (SoPs) 45
CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION 47
5.0 Introduction 47
5.1 Dignified death or good death as described in the literature 47
5.2 Professional preparedness 49
5.3 Inadequate resources 50
5.4 Conclusion 52
5.5 Recommendations 53
REFERENCES 55
APPENDIX 1: INFORMED CONSENT FORM FOR PARTICIPANTS 70
APPENDIX 11: CONSENT FORM 74
APPENDIX III: INTERVIEW GUIDE 75
APPENDIX IV: RESEARCH APPROVAL ..... **Error! Bookmark not defined.**
APPENDIX V: STUDY REGISTRATION CERTIFICATE FROM KNH 81

LIST OF FIGURES

Figure 2. 1 Conceptual Framework of the study..... 18

LIST OF TABLES

Table 1: Characteristics of Study Participants ..... …….353

Table 2: Emerging themes and subthemes from the study findings ..... …..364

OPERATIONAL DEFINITION OF TERMS

Communication competency	The ability of a critical care nurse to articulate the components of end-of-life care to patients.
Critical care unit	A section where the critically ill are admitted in a healthcare facility to support failing body organs such as the lungs, kidneys, liver, and heart among others to maintain organ function, and restore health
Critical care nurses	Nurses who have undergone specialized training in critical care nursing at either the higher diploma level or the master's level from recognized institutions.
Critical illness	This is any life-threatening condition where a patient is admitted in the critical care unit to be closely monitored and offered intensive care with an aim of restoring organ function and health.
Critically ill patients	These are patients suffering from critical illness.
Emotional imbalance	Feelings such as sadness, helplessness, depression or anxiety experienced by a critical care nurse caused by critical illness or death of patients.
End of life	A period in the lifetime of a critically ill patient where the chances of surviving are minimal. Death is imminent only delayed by time.
End of life care	Care involving managing patients' symptoms for instance pain through medical support, communicating

	with patients and their families on illness and prognosis, and emotional support, provided by nurses to critically ill patients with critical illness during the last stages of their lives.
Medical futility	A state where therapeutic and diagnostic intervention available in the critical care unit have no benefits to the patient
Palliative care	An approach aimed at enhancing the worth of life for terminally ill patients and their relatives encompassing prevention and alleviation of distress through early recognition and thorough assessment and treatment of pain, as well as addressing other psychosocial, physical, and spiritual aspects.
Therapeutic communication	These are approaches such as empathy, humor, sharing observations and feelings, providing information, listening, and touching used by a critical care nurse to improve the patients' emotional, mental and physical wellbeing.

LIST OF ABBREVIATIONS

AACN	American Association of Critical Care Nurses
CCN	Critical Care Nurse
CCU	Critical Care Unit
CPR	Cardiopulmonary Resuscitation
DNAR	Do Not Attempt to Resuscitate
DNACR	Do Not Attempt Cardiopulmonary Resuscitation
DNR	Do Not Resuscitate
EOL	End Of Life
EOLC	End-of-life care
ERC	Ethics Review Committee
ICMR	Indian Council of Medical Research
KNH	Kenyatta National Hospital
KNH-UON	Kenyatta National Hospital - University of Nairobi
SCCM	Society of Critical care Medicine

SIRS	Systemic Inflammatory Response Syndrome
SOP	Standard Operating Procedure
UON	University of Nairobi
WDLS	Withdrawal Of Life Support
WHO	World Health Organization
IQR	Interquartile Range
SOPs	Standard Operating Procedures

ABSTRACT

Background: Critical care nurses' (CCNs) role in the critical care unit (CCU) changes from life-sustaining to promoting comfort in end-of-life care (EOLC) resulting in different experiences. End-of-life care is inevitable owing to the high mortality rates experienced in the CCU especially in the African countries. Owing to this, CCNs ought to acquire specific skills required to effectively provide EOLC within the CCU.

Objective: To explore the experiences of CCNs in EOLC to adult patients in the CCU at Kenyatta National Hospital (KNH).

Methodology: This was a qualitative study employing descriptive phenomenology design to explore the experiences of CCNs in the CCUs in EOLC. 21 interviews were conducted, guided by the study tool. The main areas of interview were; understanding of EOLC by the CCNs, CCNs preparedness in provision of EOLC and barriers to EOLC. Interviews were transcribed verbatim and subjected to inductive analysis using the content analysis method. The findings were then thematically presented. Ethical approval was sought from institutions' ethical committee.

Results: The study involved 21 CCNs. A majority of the nurses were between 30-40 years of age, had bachelor's degree and had working experience of over 7 years. The study identified 3 themes: Promoting a dignified end, professional preparedness and inadequate resources. Critical care nurses viewed EOLC as centered on patient comfort and comprehensive biopsychosocial support. While demonstrating inadequate preparedness, nurses emphasized the importance of training, especially in communication skills like empathy and self-awareness. Barriers to optimal EOLC included inadequate equipment, such as a shortage of syringe pumps, insufficient counseling support for nurses dealing with patient loss, and the absence of SOPs

Conclusion: While nurses exhibit a commendable understanding of EOLC, the findings underscore a notable gap in the preparedness of CCNs. This inadequacy necessitates targeted training, improved communication competency, and therapeutic support to bridge existing gaps and elevate the standard of care. Importantly, the study captures a spectrum of experiences among CCNs, ranging from adherence to expected standards to instances falling below benchmarks. These varied experiences contribute significantly to the overall understanding of EOLC within critical care settings.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

At the end of life, an individual confronts a stage marked by impairment or contends with living under the shadow of an ultimately fatal condition, even amidst an uncertain or unclear prognosis. The American Association of Critical care nurses (AACN) defines it as a period in the life of a critically ill patient where the chances of surviving are minimal and focus is on comfort rather than cure (*Palliative and end-of-life care*, n.d). Similarly, given that the patient is afflicted with a condition that is ultimately fatal, death is imminent only delayed by time even if there is an unknown prognosis (Sjöberg et al., 2021). The end-of-life care (EOLC) is a perspective involving managing critically ill patients' symptoms for instance pain through medical support. It involves communicating with the patients and their relatives on illness and prognosis and psychological support provided by critical care nurses (CCNs) during the last stages of their lives (*Palliative and end-of-life care*, n.d).

Critical Care Nurses are nurses who have undergone specialized training in critical care nursing at the higher diploma level or the master's level from recognized institutions. They are trained on managing life-threatening conditions with an aim of restoring organ function and health. For this reason, care of the critically ill changes from treatment for prolonging life to dignity, comfort, symptom control, enhancing the quality of life and facilitating a peaceful dying process (Salins et al., 2018). The CCNs attend to different categories of patients admitted in the CCUs. These patients necessitate rigorous or invasive monitoring, along with support for airway, breathing, and circulation (Delvin et al.,2018). They require stabilization of acute or life-threatening medical issues, comprehensive management of disease or injury, and the optimization of comfort for critically ill patients (Vincent et al., 2020). Patients admitted in the CCU are a diverse group

ranging from neonates and infants to the elderly. Importantly, they all require more regular assessments and technology assistance than patients in non-CCU beds. Adult CCU patients commonly experience respiratory ,cardiac, and neurologic conditions in comparison to respiratory illnesses in the pediatric CCUs (Hassan et al., 2018).

Globally, the incidence of admissions to CCUs vary widely, with reported rates ranging from 1% to 54% (Abate et al., 2021). However, this variability is not consistent across regions, and it is important to note that the rise in morbidity rates is closely paralleled by an increase in mortality rates. In African countries, the mortality rates within CCUs tend to be significantly higher than those observed in more developed nations, with estimates ranging from 34% to 43% (*Eya et al*., n.d.; Lalani et al., 2018). Notably, in the context of public hospitals in Kenya, the mortality rate is estimated to be as high as 54% (Lalani et al., 2018). This presents a considerable challenge, particularly for CCU nurses who provide care in an environment characterized by a heightened frequency of patient mortality hence EOLC.

There are different measures adopted during the provision of EOLC. Withdrawal of life support (WDLS), withholding of life support (WHLS) and medical futility are crucial aspects in EOLC. According to Zhong et al. (2022), WDLS is described as discontinuing a therapy initiated to sustain a patient's life when it proves ineffective. Essentially, it is viewed as a measure that only serves to prolong the dying process, involving interventions such as the use of vasoactive agents and mechanical ventilation. In contrast, WHLS involves the decision not to escalate therapies, with the most common example being the issuance of a Do Not Resuscitate (DNR) order (Piryani & Piryani, 2018). Medical futility is characterized by the inability to achieve defined objectives, such as enhancing the quality of life, extending life, and saving life, as outlined by Wolfe and Kon

(2022). Despite these distinctions, healthcare professionals in the CCU grapple with challenging decisions regarding the withdrawal and withholding of care.

End of life care encompasses not only provision of support for the critically ill patient during their final days but also extends to include care for their family. In the CCU, in almost all the cases, the EOL patients are unconscious. Therefore, there is need to ensure that the plan of care aligns with patient and family goals (Utami et al., 2020). For this reason, there are specific skills required to effectively provide EOLC. These skills include communication skills, pain management ,symptoms management, cultural and spiritual considerations, ethical issues, decision-making skills as well as correct use of medical equipment (Ferrel et al., 2015;Martín-Martín et al., 2021; Muskat et al., 2020). In contrast, Subih et al. (2022) observed that the preparedness of CCNs in providing EOLC is often insufficient and unsatisfactory.

Provision of EOLC is often accompanied by various difficulties especially to the CCNs. The barriers to effective EOLC include lacking Standard Operating Procedures (SOPs) on EOLC, lack of education and inadequate communication (Blaževičienė et al., 2020). Moreover, the use of CCU for provision of EOLC is on the rise due to the increase in CCU admissions. However, CCU environment is not ideal for provision of EOLC when compared to other palliative centers. The noise from alarms cause disturbance to patients on EOLC who need adequate rest (Suba et al., 2019). Other barriers observed among the CCNs include their limited involvement in EOL decision-making for patients, varying care attitudes, as well as resource constraints (Lai et al., 2018).

Similarly, CCNs experience emotional problems such as stress, insomnia, depression and anxiety while providing EOLC (Lalani et al., 2018; Ozga et al., 2020). They exhibit different psychological issues, helplessness, discomfort and fatigue because of working in a stressful environment with

high mortality rate. Critical care nurses sacrifice their relationships - professional and personal- leading to emotional imbalance in life (Bilal et al., 2022). Further, there is limited support by health care systems when it comes to addressing these challenges faced by CCNs in EOLC (Fernandez et al., 2020). Therefore, it is necessary to apprehend the CCNs experiences with EOLC in the CCU with an aim of improving their care-giving experience. This will also suggest solutions for effective and efficient EOLC for the patients.

1.2 Problem Statement

End-of-life care has become a prominent facet of nursing within CCUs. Vijenthira et al. (2020) emphasize the significance of this by noting that approximately 10-20% of the general population currently experiences their final moments within a CCU setting. However, patients at the EOL in non-palliative care settings such as KNH CCU fail to receive care tailored to their stage of illness (Reyniers et al., 2014).

The unique skills and competencies required for EOLC by CCNs, including communication, problem-solving, decision-making, and the proficient use of medical equipment, are integral for ensuring a dignified end to patients seeking EOLC (Martín-Martín et al., 2021). Despite training in critical care nursing, at KNH CCU, current education incorporates only basic theoretical EOLC, leaving a void in the practical application of these skills..

In the specific context of KNH CCU, emotional strain on CCNs emerges. Critical Care Nurses are frequently grappling with emotional breakdowns, particularly following the prolonged care of a patient who eventually succumbs. Compounding this challenge is the unique role of the unit's sole counselor, tasked with providing support to both patients' families and the CCNs.

Furthermore, the absence of established Standard Operating Procedures (SOPs) for EOLC in KNH CCU poses a notable risk. While the development of SOPs is underway, CCNs currently deliver EOLC without clear operational guidelines, which may have the potential to impact the quality of care offered to patients in their last moments, as pointed out by Blaževičienė et al. (2020).

Despite a prior examination of EOLC comprehension among nurses in specialized care units in Kenya (Mathira et al., 2021), the specific experiences of CCNs in the context of EOLC within CCUs especially at KNH remain unexplored. This gap is critical, considering the evolving role of CCNs from life-sustaining to comfort-promoting during the end-of-life phase.

In light of the above, this research seeks to distinctly elucidate the current experiences, preparedness and barriers of CCNs in delivering EOLC within CCUs. This research endeavors to bridge this existing knowledge gap, with the overarching goal of offering valuable insights that can guide specific enhancements in both training and clinical practice. These improvements are intended to culminate in an elevated standard of end-of-life care within critical care settings.

1.3 Justification of the Study

The need for EOLC has become increasingly evident due to rising morbidity and mortality rates. In particular, the CCU is a crucial setting, where a significant percentage of patients face the end of their lives. In Kenya, the mortality rate within the CCU is alarmingly extreme, reaching up to 54% (Lalani et al., 2018). Unfortunately, regardless of this pressing need, there is currently a scarcity of palliative nurses dedicated to providing EOLC within the CCU. This calls for a closer examination of the role of CCNs in offering much-needed EOLC tailored to the specific needs of patients in critical condition.

Critical care nurses operating in the CCU face numerous challenges when providing EOLC. These challenges extend beyond clinical aspects and often manifest as emotional difficulties, including

stress, insomnia, depression, and anxiety (Lalani et al., 2018; Ozga et al., 2020). Furthermore, the unique environment of the CCU, marked by a high mortality rate, can lead to psychological issues, helplessness, discomfort, and fatigue among CCNs. Understanding these barriers is crucial, as they have the potential to profoundly influence the standards of care provided to patients.

Effective EOLC requires some specific set of skills, including pain management, advanced communication skills, cultural sensitivity, spiritual awareness, and ethical considerations. It is worth noting that EOLC extends beyond the patient to encompass care for their families. Therefore, this research aims to explore the preparedness of CCNs with regard to possessing these essential skills. Inadequate preparation can result in an overwhelming experience for patients, families, and nurses alike.

The level of support that CCNs receive during the provision of EOLC is a crucial element in ensuring the delivery of high-quality care. This support can be derived from various sources, including the family members, healthcare system, and other significant individuals. However, experiences of CCNs in providing EOLC within the CCU, especially in the Kenyan context, remain understudied. Therefore, this research seeks to delve into the experiences of CCNs in providing EOLC, with the goal of gaining a deeper understanding of their challenges and identifying strategies to enhance their support and improve patient care.

1.4 Significance of the Study

The primary objective of the present study was to explore the experiences of CCNs in the main CCU at KNH in terms of their understanding, preparedness, and the obstacles encountered when providing End-of-Life Care (EOLC) to adult patients. The outcomes of this research are anticipated to contribute to the development of evidence-based approaches in nursing practices related to EOLC. Consequently, it would also contribute to developing protocols necessary in

provision of EOLC by CCNs in the CCU. The study would give recommendations addressing the challenges faced by CCNs in CCUs in provision of EOLC. This would enhance the delivery of services and contribute to an improved quality of life for patients in EOLC. Additionally, it would contribute to the body of knowledge of CCUs on EOLC.

1.5 Main Research Questions

What are the experiences of critical care nurses in end-of-life care to adult patients in the critical care unit, KNH?

1.5.1 Specific Research Questions

i. What perspectives do CCNs at KNH hold regarding EOLC?

ii. How do CCNs approach the provision of EOLC at KNH?

iii. What specific barriers do CCNs encounter in the course of providing EOLC at KNH?

1.6 Broad Objectives

To explore the experiences of critical care nurses in end-of-life care to adult patients in the Critical Care Unit at Kenyatta National Hospital.

1.6.1 Specific Objectives

The study was guided by the following specific objectives;

i. To explore critical care nurses' perspectives on end-of-life care at Kenyatta National Hospital.

ii. To describe critical care nurses' approaches in providing end-of-life care at Kenyatta National Hospital.

iii. To identify barriers faced by critical care nurses in end-of-life care at Kenyatta National Hospital.

1.7 The Assumptions of the Study

The study assumed that;

i. The respondents had interest in sharing their experiences and that the KNH administration would be supportive and allow the study to be carried out in their premise.

ii. The information provided by respondents regarding their provision of the EOLC in the CCU would be accurate and truthful.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter is dedicated to the exploration of Critical Care Nurses' (CCNs) experiences in delivering End-of-Life Care (EOLC) to adult patients within the CCU. It encompasses a comprehensive review of prior studies that have aimed to address the present research objectives. The literature review is structured into sections that align with the specific goals of this study, including CCNs' comprehension of EOLC, their preparedness for providing EOLC, and the challenges they encounter in delivering EOLC within CCUs. The chapter also outlines the theoretical and conceptual frameworks guiding this investigation.

To gain a deeper insight into the subject at hand, the researcher emphasized the inclusion of high-quality studies. The literature search was conducted using the Google Scholar and SAGE search engines. Specific keywords were utilized, such as 'End-of-Life,' 'End-of-Life Care,' 'Critical Care Nurses,' 'Critical Care Unit,' 'Experiences,' 'Understanding,' 'Barriers,' and 'Qualitative.' To refine and expand the search scope, keyword combinations like 'Critical Care Nurses + End-of-Life Care' were used.

2.2 The Perception of Critical Care Nurses on EOLC

2.2.1 Holistic Care

The end-of-life care in CCU has gained increasing significance globally. This trend is driven by the rising prevalence of chronic diseases, which pose a substantial threat to public health in contemporary society. As per the World Health Organization (WHO), the objective of EOLC is to enhance the standard of living for patients and their loved ones by addressing diverse psychological, physical, spiritual, social and challenges (WHO, 2020). Holistic approach in EOLC optimizes the standard of living for critically ill patients and their relations through specialized

interventions such as anticipation of suffering (National Hospice and Palliative Care Organization (NHPCO), 2020). In agreement, nurses understood EOLC to extend beyond physical aspects to encompass the spiritual, emotional, psychological, and physical needs of clients with critical illnesses (Subih et al., 2022). This comprehensive approach underscores the understanding of CCNs to EOLC within the critical care setting.

2.2.2 Shifting Roles and Knowledge of Critical Care Nurses

The task of CCNs in the context of EOLC represents a substantial departure from their customary responsibilities, particularly when dealing with patients facing critical illnesses. As articulated by the Canadian Association of Schools of Nursing (CASN), EOLC necessitates a unique skill set encompassing communication proficiency, effective pain and other symptoms management, support for grief and bereavement, and the establishment of psychosocial assistance to both patients and their relatives. This departure from the life-sustaining focus of CCNs is a significant shift that has been emphasized by Ozga et al. (2020), who underscore the importance of CCNs to transition from their traditional roles centered on life-supporting interventions to become proficient in EOLC.

The pivotal role played by CCNs in the delivery of EOLC highlights the critical importance of their competence in ensuring the quality of care provided. However, a substantial number of CCNs lack the requisite knowledge and training essential for delivering effective EOLC (Chan, 2018). This knowledge deficit is further exemplified in a research done in Taiwan by Ke et al. (2019), which discovered that CCNs working in CCUs displayed significantly lower levels of knowledge concerning EOLC when compared to their physician counterparts. In concurrence with these findings, Ho et al. (2022) identified that limited awareness and insufficient knowledge among CCNs are at the core of the challenges encountered in the provision of EOLC. This gap in

knowledge can precipitate various obstacles, including inadequate participation in patient care planning and the ineffective delivery of EOLC due to the absence of essential skills (Subih et al., 2022). Therefore, ensuring the proficiency of CCNs in EOLC is imperative for providing high-quality care and tackling the unique requirements of patients and their relations in the course of this critical phase of healthcare delivery.

2.2.3 Family Support

During a patient's admission to the CCU, families navigate a challenging and emotionally charged journey. Critical care nurses assume a crucial role in providing care, not solely to EOL clients but also to their kindred. This dynamic involves active engagement with the patient's kindred, where information regarding the patient's illness and prognosis is shared during family conferences, ensuring that the family is kept informed, even when the news is unfavorable (Ulami et al., 2020). Family members deserve an honest understanding of their patient’s condition. Wadab et al. (2022) underscored the importance of such transparent communication, as family members often find solace and a sense of control in understanding the situation, even when it carries distressing implications. In addition to information-sharing, CCNs extend support to families in various other ways. This encompasses offering encouragement and creating opportunities for families to engage in shared moments, such as conversations and prayers (Ulami et al., 2020). Notably, CCUs often adopt an inclusive approach, allowing close family members, particularly nuclear families, to be present with the patient even beyond official visiting hours. Nevertheless, it is crucial to recognize that different relatives may exhibit varying responses in recognizing and appreciating the care provided by CCNs (Kgosana et al., 2019).

In alignment with this observation of varying responses from family members, Puente-Fernandez et al. (2020), noted that some family members might attribute their loved one's demise to perceived

shortcomings in the nursing care provided. Consequently, CCNs may grapple with feelings of responsibility and self-blame, despite their dedicated efforts to deliver the highest quality care (Kgosana et al., 2019). The complex interplay between CCNs and patient families in the CCU underscores the importance of effective communication, support, and understanding, while recognizing the diversity of family responses and the emotional burden that can befall CCNs in their commitment to EOLC.

2.3 Critical Care Nurses' Preparedness in the Provision of End-of-Life Care

2.3.1 Perceptions on Preparedness.

Critical Care Nurses enact a crucial part in stabilizing the critically ill clients. Scholars have underscored the importance of CCNs' understanding of their personal beliefs and perceptions regarding dying and death in preparing them for the provision of EOLC (Hall, 2020). The provision of care to clients and their family members necessitates a blend of information and skill, encompassing both specialized and individual aspects, while also requiring access to adequate support resources. This complex role entails striking a balance between one's personal and professional responsibilities as a nurse. An exploration of CCNs' preparedness in EOLC suggests that effective preparation entails the nurse's ability to make sense of the dying experience (Beckstrand et al., 2021). However, Hall (2020) diverges from this perspective by highlighting that a substantial number of CCNs express feelings of unpreparedness in delivering EOLC, particularly in the face of increasing chronic illnesses and death rates within CCUs, despite advancements in technology and science. This ongoing challenge for CCNs underscores the significance of ensuring dignified EOLC within CCUs.

Critical care nurses who perceive themselves to be adequately prepared offer better EOLC. In agreement, a study conducted by Griffith (2018) delved into the preparation of CCNs for EOLC

and emphasized the importance of international documents that recognize the necessity of preparing CCNs for this crucial role. However, the study noted that these documents often lack contextualization concerning EOLC preparation. Furthermore, the research established that a prepared and adequately supported nurse is more likely to exhibit empathetic communication skills, confidence in assessing clients at the EOL, proficiency in symptom management, and a comprehensive understanding of the dying process. These nurses are also better endowed to manage emotional impact of bereavement and loss, both for themselves and their patients, ultimately demonstrating self-competence. Conversely, the viewpoints put forth by Ramos Salazar (2020) and Molly and Abraham (2020) propose that CCNs often encounter challenges in being adequately prepared and supported in delivering EOLC. This lack of readiness may lead to adverse consequences, including burnout, work-related stress, elevated turnover rates, work dissatisfaction, and heightened mortality rates. These disparities underscore the significance of ensuring that CCNs are adequately prepared and supported in their crucial role in EOLC.

2.3.2 Knowledge and Training

Comprehensive knowledge and thorough training in EOLC play pivotal roles in determining patient care outcomes. As identified by Chan (2018), a significant proportion of CCNs lack the necessary knowledge and training to deliver high-quality EOLC effectively within clinical practice settings. Moreover, within the CCUs, there is a glaring inadequacy and inconsistency in the training received by CCNs, which perpetuates the challenges associated with insufficient knowledge (Subih et al., 2022).

This dearth of knowledge and inconsistent training can manifest in several issues, including sub-optimal levels of knowledge and be deficient in contributing to care planning process for clients. It can also lead to the ineffective provision of EOLC due to a deficiency in the requisite skills

among CCNs (Subih et al., 2022). Consequently, addressing the gaps in knowledge and training is imperative to enhance the competence and effectiveness of CCNs in delivering EOLC within CCUs. Fostering a robust educational framework tailored to EOLC and ensuring standardized, comprehensive training for CCNs will not only empower them with the essential knowledge and skills but also enable them to actively engage in the care planning process and provide compassionate and effective EOLC for critically ill patients within the CCU setting (Ulami et al.,2020).

2.3.3 Communication Skills

One critical aspect of effective EOLC provision is the possession of high-quality therapeutic communication skills. Communication skills is significant especially now with chronic care patients whose numbers are projected to increase with the ageing population. An article by Pathways on importance of communication concluded that nurses require proper communication to therapeutically communicate and care for their patients as well as address the concerns of the family ('The Importance of Effective Communication at End of Life | Pathways', n.d.) This was also affirmed by Yoo et al. (2020) when they observed that proficiency in communication is essential for evaluating the requirements of critically ill patients and their families in a CCU setting.

Current evidence suggests that the effectiveness of CCNs in communication with relevant parties can be independent of their knowledge base (Park & Lee, 2018). Likewise, therapeutic communication is a crucial aspect for CCNs in nursing, particularly in relation to empathy. Howick et al. (2018) posit that empathetic communication not only contributes to the swift recovery of patients but also enhances job satisfaction among CCNs. However, (Subih et al., 2022) argues that

when it comes to providing EOLC, CCNs are not always adequately prepared in terms of communication.

2.3.4 Teamwork Skills

The CCNs should be capable of working as team members to ensure effective EOLC in the CCU. A recent investigation conducted by Dirks (2019) asserts that the outcomes in CCUs hinge on the nurse's ability to collaboratively function as a team member. Significantly, the effectiveness of high-functioning multidisciplinary teams is paramount for ensuring the quality and safety of EOL patient care. Fan et al. (2018) further validates that a team can successfully achieve shared goals in the CCU when its members possess appropriate teamwork skills. However, it is noteworthy that a different study highlighted that healthcare teams are seldom or inadequately trained to function cohesively as team members within the current education system (Subih et al., 2022). This poor construction and coordination of healthcare teams in EOLC is attributed majorly to lack of preparation.

2.4 Barriers Critical Care Nurses' Experience in End-of-Life Care

2.4.1 Challenging Working Environment

The working environment in CCU is not ideal for CCNs providing EOLC. Khan et al., (2019) examined the factors that force CCNs to leave adult critical care settings. The author found that poor working environment, poor working relationship among CCNs in the CCU, and stressful/traumatic workplace experiences were the main reasons for CCNs wanting to leave the CCU. Similarly, Lai et al. (2018) examined the challenges faced by CCNs in providing EOLC and realized that the working environment is difficult and complex. Unfortunately, the CCU working environment remains inadequate in meeting the need of CCNs and patients as well as their families. Past research has indicated that the work environment in CCUs is notably stressful, given that

CCNs are consistently exposed to the suffering and pain of patients dealing with incurable diseases (Kgosana et al., 2019).

2.4.2 Decision Making Challenge

Decision-making in the context of EOLC is fraught with complexity and emotional strain. Lai et al. (2018) highlighted the absence of clear guidelines or directives for EOLC decision-making, and when guidelines are present, they often exhibit gaps and ambiguities. Carmel et al. (2020) emphasized the emotional toll that the decision-making process can exact on healthcare providers. The necessity of discussing dying and death, along with making critical decisions, creates a challenging emotional landscape for CCNs.

Poor communication with relatives, inadequate attention to quality of life, lack of a realistic overview of the situation, and complications arising from polypharmacy further compound the decision-making challenges in EOLC. These barriers make it difficult for CCNs to navigate the intricate process of decision-making effectively. Egan et al. (2017) underscored the difficulty CCNs face in initiating discussions about dying and death with patients' relatives. This challenge is rooted in their perceived lack of competence and knowledge concerning the dying process, adding yet another layer to the complexity of EOLC.

2.4.3 Emotional and Psychological Burden

Critical Care Nurses in CCUs bear a significant emotional and psychological burden associated with their roles in EOLC. Davidson et al. (2017) identified a spectrum of physical and psychological distress that characterizes the CCU environment. These distressing factors include posttraumatic stress, anorexia, fatigue, anxiety, fear, and depression. Subih et al. (2022) further emphasized the vulnerability of CCNs in the CCU to psychological and emotional distress. The

nature of the work undertaken by CCNs, frequently involving the firsthand witnessing of suffering and death, can significantly impact their mental and emotional health.

Kamal et al. (2016) identified a knowledge gap in CCNs' understanding of appropriate communication techniques, symptom management, and shared decision-making capacity. This gap can result in feelings of inadequacy and stress, further contributing to the emotional and psychological burden on CCNs. The working environment in CCUs often falls short in meeting the wants of CCNs, clients, and their relatives (Khan et al.,2019). Inadequate support and resources add to the emotional and psychological barriers encountered by CCNs in the pursuit of effective EOLC.

The emotional and psychological stressors experienced by CCNs necessitate institutional support; without it, nurses may face substantial burnout and stress, leading to low retention rates and increased absenteeism. Nevertheless, it is important to note that nurses exhibit diverse personalities, with some maintaining the belief that they do not experience psychological or physical exhaustion while working in a stressful environment, such as EOLC (De la Fuente-Solana et al., 2020).

2.4.4 Inadequate Knowledge

Certain authors have identified a knowledge gap among CCNs regarding various concepts, such as dying and death. Ay and Oz (2018) conducted a study that not only identified this knowledge gap but also recommended educational interventions, including changes in values and enhanced learning, to positively influence CCNs' attitudes toward these concepts. Other studies conducted by Nienaber & Goedereis (2015) and Dadfar & Lester (2019) supported the notion that education is crucial in the context of EOLC, as it reduces anxiety related to death and positively impacts the feelings, attitudes, and perspectives of CCNs, ultimately enhancing the overall quality of life.

Likewise, the importance of education for CCNs extends to emotional and communication support related to EOLC concepts, emphasizing the need for effectiveness in their roles (Ay & Oz, 2018). A cross-sectional study conducted by Jiménez-Giménez et al. (2021) underscored the heightened need for CCNs to acquire additional skills and education to effectively navigate the challenges associated with caring for dying patients and addressing death. The collective findings of these studies consistently highlight a deficiency in the support systems available for CCNs, hindering their ability to obtain sufficient and pertinent education, encompassing both knowledge and skills, essential for the proficient execution of their tasks in the context of EOLC.

2.5 Theoretical Framework

This study applied Kolcaba's Comfort Theory; a nursing theory developed by Katherine Kolcaba. As outlined by Lin et al. (2023), this theory positions comfort at the core of healthcare. Boudiab & Kolcaba (2015) define comfort through three forms: relief, ease, and transcendence. Additionally, they elaborate on four contexts within which comfort can be experienced: sociocultural, environmental, psychospiritual, and physical. Addressing the patient's specific comfort needs, the nurse administered prescribed analgesia to alleviate postoperative pain. The patient attained comfort in the context of ease when comfortably contented, representing a state achieved when addressing anxiety issues (Lafond et al., 2019). Transcendence, another facet of comfort, denotes a state where individuals overcome and rise above their problems. Comfort Theory positions comfort as an immediate intended outcome of nursing care (Boudiab & Kolcaba, 2015).

The Theory of Comfort, as proposed by Kolcaba and colleagues, posits that individuals respond to complex stimuli in a holistic manner, and it underscores the significance of comfort as a desired outcome in nursing practice (Boudiab & Kolcaba, 2015). Comfort, within this framework, is

viewed as a fundamental human need that individuals actively seek to attain. The theory asserts that the effective implementation of comforting interventions can result in increased comfort levels for nurses, patients, and their families when compared to pre-intervention approaches (Lafond et al., 2019). This enhanced comfort, in turn, leads to greater engagement in health-seeking behaviours, thereby contributing to the delivery of high-quality care that benefits not only the healthcare professionals and their patients but also the healthcare institution itself.

According to the Comfort Theory, comfort is an essential need for all individuals, offering relief, ease, and transcendence in the face of stressful healthcare situations. Research findings have indicated that the provision of comfort promotes health-seeking behaviours among nurses, patients, and their family members (Yazdi & Ebrahimpour, 2021). Moreover, the theory postulates that when the comfort of nurses is prioritized, they are more likely to experience job satisfaction, exhibit commitment to their healthcare facility, and demonstrate increased dedication, ultimately leading to improvements in the overall provision of healthcare services.

2.5.1 Application of the Comfort Theory to the Study

The Comfort Theory is highly relevant to this study, as it takes into account the well-being of not only patients and their families but also the critical care nurses (CCNs) under examination. This research focuses on the experiences of CCNs, and the literature review has consistently revealed the demanding nature of their work in the context of providing End-of-Life Care (EOLC), marked by challenges such as inadequate institutional support and communication difficulties (NG, 2017). Dealing with terminal conditions is undeniably demanding, affecting not just patients and their families but also the nurses who often find themselves understaffed, ill-equipped, and inadequately supported to deliver appropriate EOLC. Moreover, most Critical Care Units (CCUs) in Kenya are plagued by inadequate resources and poor working conditions, further exacerbating the challenges

faced by CCNs. It is evident that CCNs often work in less than comfortable environments, making the Comfort Theory relevant as it offers a foundation for enhancing the comfort of these nurses as they strive to provide EOLC to patients and their families, centered on the principles of ease, relief, and transcendence.

Critical care nurses are proactive in assessing the comfort needs of patients, devising strategies to address these needs, and subsequently reevaluating the comfort levels post-implementation using a baseline (Yazdi & Ebrahimpour, 2021). CCNs can significantly benefit when healthcare institutions prioritize their comfort as they fulfil their caregiving roles in EOL situations. The literature has identified a range of challenges that hinder the comfort of CCNs, including heavy workloads, deficient therapeutic communication, burnout, job-related stress, high turnover rates, job dissatisfaction, increased patient mortality, and extended hospital stays (Moly & Abraham, 2020; Ramos Salazar, 2020). Although comfort interventions may not always involve technical procedures, they nonetheless play a crucial role in enhancing the delivery of technical care.

According to Boudiab and Kolcaba (2015), CCNs are more likely to exhibit creativity and job satisfaction when they integrate and implement comforting care, which, in turn, results in higher patient satisfaction. Furthermore, Boudiab and Kolcaba argue that healthcare institutions stand to gain greater integrity if they foster increased patient engagement in health-seeking behaviours. The Comfort Theory suggests that if healthcare institutions adopt a comfort-centric approach, they can not only bolster their own integrity and improve EOLC outcomes but also enhance the recruitment and retention of CCNs. In this regard, the theory offers valuable insights for the restructuring of healthcare institutions around the core concepts of ease, relief, and transcendence

2.6 Conceptual Framework

This study was guided by the following conceptual framework;

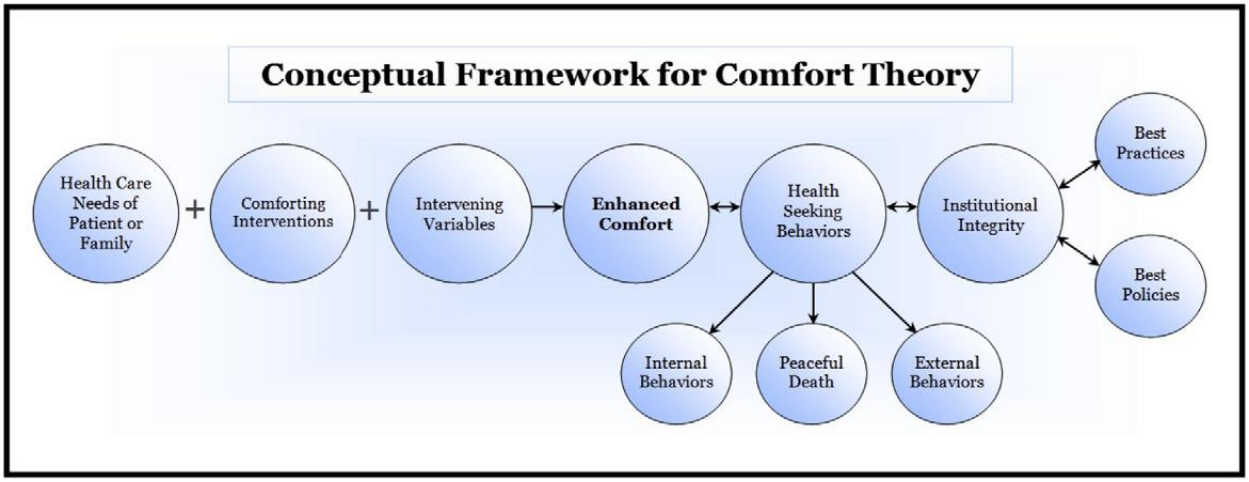


Figure 2. 1 Conceptual Framework of the study adopted from Puchi, Paravic-Klijn, and Salazar (2018).

Fig. 2.1 above showed the conceptual framework that guided the study. The study assumed that the feelings of CCNs about their profession, how they are perceived, their feelings towards death and dealing with critically ill patients in the CCU influences their experiences in the CCUs. Similarly, their preparedness influences their experiences in the CCU. It also assumed that the level of support among themselves, from patients' family members and the healthcare institution influence the experiences of CCNs in the CCU.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

In this section, the research design, study site, study population, sample size determination, sampling technique, inclusion and exclusion criteria, data collection procedures and tools, data analysis, and ethical considerations were outlined.

3.2 Study Design

This qualitative study employed a descriptive phenomenology design to explore the experiences of critical care nurses in end-of-life care through in-depth interviews.

3.2.1 Descriptive Phenomenology

Phenomenology, as a qualitative research design, seeks to describe the experiences of the study population in their natural environment (Sihre et al., 2019). It was originally developed by 20th-century philosophers like Sartre and Husserl with the aim of exploring and understanding the structure, meaning, and essence of life experiences of the study subjects, in this case, critical care nurses at KNH, regarding a specific concept without abstraction (their experiences in providing EOLC in the CCU) (Sihre et al., 2019; Sundler et al., 2019). Descriptive phenomenology is a research design used to understand subjective experiences and gain insights into the motivations and actions of individuals. It also allows the researcher to uncover assumptions and conventional wisdom (Sundler et al., 2019).

Furthermore, Frechette et al. (2020) added that descriptive phenomenology yields qualitative data, enabling the researcher to explore and understand the experiences of the study population in their natural environment without predetermined conditions. The selection of descriptive phenomenology in this study was motivated by the desire to comprehend the experiences of CCNs in providing EOLC in the Critical Care Unit at Kenyatta National Hospital from a first-person

perspective. The study assumed that individuals had varying challenges and perceptions, and, as a result, in-depth interviews with selected CCNs would generate rich data regarding their experiences in providing EOLC in the CCU.

3.3 Study Site

The study was conducted at Kenyatta National Hospital (KNH) in the Main Critical Care Unit (CCU). KNH is located in Nairobi County, Kenya's capital city, situated 3.5 kilometers west of the central business district. Established in 1901, KNH currently has a bed capacity of 1800. The CCU admits critically ill patients referred from across the country through the accident and emergency department and from different theatres and wards within KNH. KNH features various satellite CCUs, including the medical CCU, obstetric CCU, cardiac CCU, neurological CCU, pediatric CCU, neonatal CCU, and the recently established Infectious Disease Unit CCU. The Main CCU primarily admits trauma patients, although reports indicate that high demand for CCU beds has resulted in the admission of various medical conditions. KNH serves as the largest referral and teaching hospital, not only in Kenya but also in the entire Eastern and Central Africa region. It is ranked as the largest CCU capacity hospital in Africa. Likewise, CCNs working at KNH have substantial experience in providing EOLC in the CCU.

3.4 Study Population

The study population comprised Critical Care Nurses (CCNs) responsible for providing End-of-Life Care (EOLC) in the main Critical Care Unit (CCU) at Kenyatta National Hospital (KNH). The main CCU was chosen due to its status as a general unit that receives the majority of critically ill patients referred from various parts of the country. It boasts a larger bed capacity when compared to the satellite CCUs within KNH, which in turn accommodates a greater number of CCNs.

The selection of Critical Care Nurses in this study was based on their extensive experience in managing critically ill patients in need of EOLC over an extended period. This criterion ensured that they had encountered a variety of scenarios in the provision of EOLC. The main CCU at KNH had a total of 92 nurses, consisting of 71 females and 21 males

3.5 Selection of participants

3.5.1 Inclusion Criteria

The following were the criteria for inclusion in the study.

- CCNs actively involved in the provision of EOLC in the CCU at KNH during the period of data collection.
- CCNs who had worked in the CCU at KNH for more than one year. Including CCNs with at least one year of experience in the CCU ensured that participants had gained a certain level of familiarity with the unit's environment, procedures, and patient population. This criterion helped ensure that participants had a sufficient depth of experience to provide meaningful insights into the delivery of EOLC.
- Those who consented to the study.

3.5.2 Exclusion Criteria

The following were the criteria for exclusion in the study.

- CCNs who had worked in the CCU at KNH for less than one year.
- CCNs who had worked in CCU at KNH for over one year but on leave during the period of study.

3.6 Study variables

In qualitative research, variables are often referred to as concepts or phenomena that one aims to explore and understand. In this study, the variable “experiences" was defined as subjective

perceptions, thoughts, emotions, and actions that individuals underwent in a specific situation or context. In this case, the researcher was focusing on the experiences of CCNs in the provision of EOLC in the CCU at KNH. The researcher was interested in understanding their personal, professional, and emotional encounters related to EOLC in this specific setting. The 'experiences' could further be described in dimensions that the researcher intended to explore. These dimensions helped in providing a more comprehensive understanding of the CCNs experiences. The dimensions included individual preparedness, communication with patients and families, emotional challenges, decision-making processes, interprofessional collaboration, ethical dilemmas and barriers to EOLC. Nevertheless, it was imperative to bear in mind that the definition of "experiences" was provisional and opened to refinement as the researcher engaged with the information and gained a greater understanding of the CCNs experiences.

3.7 Sample Size Determination

In a phenomenological qualitative study such as this, the determination of the sample size was guided by the concept of data saturation. Saunders et al. (2018) defined data saturation as the point at which no new information could be obtained. Vasileiou et al. (2018) suggested that a sample size ranging from five (5) to twenty (20) respondents was sufficient in qualitative research to achieve data saturation. In a systematic review conducted by Sundler et al. (2019), it was observed that most descriptive phenomenological studies involved between four (4) and sixty-two (62) respondents. Hence, the researcher planned to conduct interviews with between 15 and 20 participants, with the intention of continuing until data saturation was reached.

3.8 Sampling Method

This study employed purposive sampling technique to identify respondents of the study. Purposive sampling is a non-probability sampling method in which participants are deliberately chosen based

on specific characteristics deemed essential by the researcher for the sample (Sundler et al., 2019). The use of purposive sampling in descriptive phenomenology is generally acceptable as it selects participants with rich experiences related to the research question (Groenewald Phenomenological Design, n.d. 2018). The approach also allows the researcher to select participants that have cognitive capacity to self-reflect and adequately express themselves. As a result, very detailed and important information can be gathered from a small number of respondents. In this research, purposive sampling was utilized to select CCNs who were actively involved in the provision of EOLC in the CCU. The selection criteria for Critical Care Nurses (CCNs) participating in this study included the following: a minimum of one year of service in the main Critical Care Unit (CCU) at Kenyatta National Hospital (KNH), possession of a higher diploma in Critical Care Nursing, gender (both male and female), active engagement in CCU duties, and substantial knowledge and experience relevant to the research topic. Purposive sampling technique was chosen due to its time and cost-effectiveness. The composition of the sample size was guided by factors such as qualification level, years of service in the CCU, and the age of the participants. Twenty-five Critical Care Nurses (CCNs) were initially recruited for the study, but four withdrew due to unforeseen emergent unavoidable schedules after their CCU shifts.

3.9 Recruitment Process

The researcher visited KNH CCU after the research had been approved by the institutional ethics committee and permission to collect data issued by KNH administration. In the CCU, the approval letter and permission to collect data were given to the ward in charge after handover in the morning who gave a go ahead to the researcher to interact with the CCU staff. After introduction, the researcher was advised that it was appropriate to conduct the interviews at 11 AM during the nurses' break for the morning and day shift staff. The introductions between the researcher and the

afternoon and night shift nurses were made at individual levels. This was conducted face-to-face owing to the sensitive nature of the study, as it bore the risk to evoke emotional responses from the CCNs while they shared their EOLC experiences. The afternoon interviews were conducted at 4 PM after patient cares and 7 AM before starting the handing over for the night shift nurses.

3.10 Data Collection

3.10.1 Data Collection Tools

Data collection in this study involved semi-structured, face-to-face interviews, following a predefined interview topic guide (see Appendix iii). The guide, developed by the researcher, was tailored to align with the research objectives and featured open-ended questions to encourage a free-flowing exchange between the researcher and participants. During the interviews, the researcher also employed probing techniques to ensure a comprehensive understanding of the participants' perspectives. Each interview session lasted between 30 to 40 minutes, and data collection spanned a two-week period. These interviews aimed to gather insights into the experiences of Critical Care Nurses (CCNs) in delivering End-of-Life Care (EOLC) in the primary Critical Care Unit (CCU) at Kenyatta National Hospital (KNH).

The data collection site was the counselling room within the CCU, chosen for its capacity to provide privacy and a conducive environment for research participants. Interviews were selected as the primary data collection method due to their ability to facilitate the exploration of CCNs' experiences in providing EOLC in their natural work environment. As noted by Alshenqeeti and Hamza (2019), interviews offer respondents the opportunity to openly express their thoughts and feelings, and the use of follow-up questions allows for in-depth data collection.

3.10.2 Pretesting of the Interview guide

Pre-testing of the interview guide was carried out using three CCNs at the neurological CCU in ward 4c at KNH. This CCU was selected because it admits almost similar cases of patients as in the main CCU. The aim of the pretest was to make sure that the interview questions were aligned with the research objectives; to familiarize with the questions; and to also make sure that there was uniformity of feedback from participants as far as understanding the questions was concerned. After the pretest, the researcher adjusted the data collection instrument. Similarly, the pretest outcome helped in the standardization of questions. Further, the researcher adhered to all ethical procedures during the pre-testing.

3.11 Data Management and Analysis

3.11.1 Data collection method

Following KNH-UON ERC approval no. P217/03/2023, the interviews, each lasting between 30 to 40 minutes each, were carried out by the researcher and two research assistants. There were no repeat interviews. Prior to transcription, the researcher accurately reviewed the recorded interviews to verify accuracy. To maintain participant anonymity and confidentiality, the interviews were identified by unique numbers, N1 to N21.

Participants provided their consent for audio recording of the interviews using a digital recorder, which was instrumental in ensuring data accuracy. This method allowed for cross-referencing and validation of the recorded content with the participants' spoken responses during the interviews.

Additionally, the interviews yielded field notes, serving as a valuable tool for data documentation. These field notes facilitated the contextualization of the information and aided in the researcher's understanding of participants' thoughts and feelings that may not have been explicitly articulated during the verbal discussions

3.11.2 Transcribing process

The audio-recorded data was transcribed verbatim by an individual not involved in data collection. The transcripts were produced in word form as word documents for the 21 respondents. Further, the researcher ensured data confidentiality and anonymity using text code identification.

3.11.3 Data Analysis

Demographic characteristics

The demographic characteristics of the research participants were analyzed utilizing a software, R version 4.1.2. Continuous variables including age, years of experience, were summarized using medians and interquartile ranges. Categorical variables like, level of education and gender, were summarized using frequencies and proportions and results presented in a table.

Qualitative data

A systematic review conducted by Sundler et al. (2019) found that over 73% studies adhered to data analysis approaches established for descriptive phenomenology by Groenewald (2018). Descriptive phenomenology is widely used as it confers the advantage of understanding other people's experiences, it is said to gather data that is seen as natural and can also be convenient and faster (*Phenomenology - Research Methodology*, n.d.). Therefore, this study used Colaizzi's steps of analyzing phenomenological data in the process of data management and analysis. The steps included 1) to read and re-read the field notes and transcripts; 2) to extract important and appropriate responses regarding the research questions on CCNs experiences in providing EOLC; 3) to formulate meanings from the responses; 4) to aggregate the meaningful words formulated into themes; 5) to develop a description of the essential structures of the nurses' experiences in

provision of EOLC 6) to generate a report of the fundamental form of the CCNs experiences in provision of EOLC (Han et al., 2021).

To generate themes and subthemes, the transcripts were reviewed over and over to first understand the content in line with the study questions. Based on the research questions, important responses were extracted. The responses were then synthesized to formulate themes with regard to the study objectives. After generation of the themes, subthemes were developed under each theme to further describe the themes for more clarity. A report was then generated under the themes and subthemes together with the respondents' statements in quotation marks to describe the nurses' experiences in provision of EOLC. These results are presented in table 4.2.

3.12 Presentation of research findings

The study's outcomes, encompassing demographic characteristics, as well as the identified themes and subthemes delineating nurses' experiences in delivering EOLC, were showcased through tables. Subsequently, these results underwent examination by a panel at the University of Nairobi's Department of Nursing. Further, the findings are intended for publication in the University of Nairobi's repository, ensuring public accessibility. Additionally, a copy of the results will be furnished to the CCU at KNH.

3.13 Study Limitation

This was a qualitative study and was limited to CCNs providing EOLC at KNH. The first limitation was social desirability bias. Given the sensitive nature of EOLC, CCNs might have provided responses that they perceived to be more socially desirable or acceptable. This bias could potentially affect the accuracy and depth of the data collected. This was mitigated by emphasizing the confidentiality and anonymity of participants all through the study. The researcher clearly communicated that there were no correct or incorrect responses, and encouraged honest and open

responses. The researcher employed qualitative research techniques, such as building rapport and trust with participants, to create a safe and non-judgmental environment. This helped to foster more genuine and candid responses.

Additionally, the outcomes of this study might not be generalizable beyond the specific context of the CCU at Kenyatta National Hospital. Factors such as cultural, organizational, and regional variations might limit the applicability of the results to other critical care settings. This was mitigated by acknowledging the specific context of the study and clearly describing the characteristics of the CCU at Kenyatta National Hospital. This helped readers understand the uniqueness of the setting and the potential limitations of generalizability.

3.14 Ethical Considerations

Before initiating data collection, the researcher secured approval from the KNH-UON Ethical and Research Committee (ERC) with the identifier P217/03/2023. Additionally, the researcher obtained permission for data collection from the hospital administration. Moreover, the study participants were briefed on the study's objectives and potential benefits prior to their consent form endorsements. They were informed that the information they shared would be treated as unanimous and confidential. Likewise, participants were informed that their involvement in this study is voluntary, and they had the freedom to pull out from the study at any point before its completion. During the interview, the study participants were known and identified by numbers (codes) N1 to N21. They were also informed that the study carried no financial as well as other direct benefits, but it would be used by the management to improve EOLC care.

Autonomy: The participants were assured of their safety and that the risks would be minimal. In the event that the participants felt any discomfort in the course of the study the researcher would act promptly to provide necessary assistance. However, none of these was encountered.

Confidentiality and privacy: From the beginning of the interview, the researcher assured respondents of their confidentiality and anonymity. For instance, they would be assigned codes to replace their names. Also, their information would not be shared with any one and the findings would be presented without exposing their identities. To ensure privacy, the researcher selected the counselling room within the Main CCU interview.

Beneficence: The participants were apprised that the study carried no incentives, financial as well as other direct benefits but it would be used by the management to improve their wellbeing in terms of policy formulation and implementation.

Justice: The researcher guaranteed justice and fairness throughout the data collection process. For instance, the inclusion and exclusion criteria would be fair to make sure that participants with the much-needed information shared their experiences with the investigator.

Risks: The participants would not be predisposed to any physical nor economic risks when taking part in the study. However, the study would require them to take some time off their busy schedule for an interview. Similarly, some questions required them to provide personal information that may have been sensitive to them. If such questions involved painful emotions or any psychological disturbance, several measures were implemented to ensure their well-being and emotional welfare. First, during data collection, a skilled and experienced researcher conducted the interviews in a supportive and empathetic manner. They were encouraged to express their thoughts, feelings, and experiences at their own pace and comfort level. The researcher actively listened, provided reassurance, and validated their emotions throughout the interview process. If, during the interview, they became emotionally distressed or expressed a need for additional support, the researcher was prepared to halt the interview and provide appropriate assistance. They were provided with the choice to pause, resume at a later time, or withdraw from the study if needed. In

cases where professional psychological support was required, the researcher promptly referred them to the CCU counselor, who provided assistance free of charge.

3.15 Research Rigor

Rigor was essential for establishing the trustworthiness and validation of the study. This section outlined the strategies and techniques that were employed to enhance rigor in this research.

Credibility: During the data collection phase, the researcher engaged in peer debriefing sessions with the research assistants. These enabled discussions and settling any discrepancies. Additionally, during the data analysis phase, the investigator shared the interpretations with supervisors well versed with qualitative research.

Transferability: In this study, the researcher addressed transferability through rich description whereby in the reporting, the researcher offered detailed and comprehensive depictions of the CCU, CCN, and their experiences. Consequently, the detailed descriptions enabled readers to assess the applicability of the findings to their own contexts. Further, the researcher provided a demographic profile of the CCNs including the years of experience and educational background. This aimed at assisting readers in evaluating the scope to which the results of this study might apply to nurses in different critical care settings or with varying levels of experience.

Confirmability: Throughout the data collection and analysis stages, the data underwent thorough and repeated scrutiny. Additionally, participants were engaged in pretesting to ensure that the research questions yielded the required information (Moser & Korstjens, 2018).

Dependability: This was ensured through consistency in data collection. The interviews were standardized to guarantee systematic and reproducible data collection. A single researcher conducted all interviews, employing a predetermined set of questions to minimize potential variations in data collection methods.

CHAPTER FOUR: RESULTS

4.1 Introduction

This chapter presents the study results, which delved into the experiences of 21 critical care nurses providing end-of-life care at Kenyatta National Hospital. These in-depth interviews, conducted over a two-week period, captured the nurses' narratives, reflections, and perspectives. Digital recorders were employed to ensure accurate recording, and interviews ceased upon reaching data saturation. The transcribed interviews were then subjected to rigorous thematic analysis, unveiling the intricate facets of the nurses' encounters and enriching our understanding of their responsibilities in end-of-life care.

4.2 Characteristics of Study Participants

The median age of the CCNs was 32 years with an interquartile range (IQR) of 29 to 35 years. The majority 47.6% (n = 10) of the responding nurses were between 30 to 40 years followed by 28.6% (n = 6) who were below 30 years. The rest were aged above 40 years. The majority of nurses 12 (57.1%) had a bachelor’s degree, 6 (28.6%) were holders of master’s degrees and 3 (14.3%) were diploma holders. The nurses had worked for a median of 7 years with an IQR of 5 to 9 years. Of the 21 nurses, 61.9% (n = 13) had worked for seven years and above and the rest had worked for less than seven years (Table 1).

Table 1: Characteristics of Study Participants (N = 21)

Variable	Description	Frequency/Median	Percent (%) (IQR)
Age in years	Median	32	29.35
Age categories in years	Less than 30	6	28.6
	30 to 40	10	47.6
	More than 40	5	23.8
Experience in years	Median	7	5.9
Experience in years	Less than 7	8	30.1
	Seven and above	13	61.9
Level of education	Higher diploma	3	14.3
	Bachelors	12	57.1
	Masters	6	28.6

4.3 Emerging Themes from the Interviews

The findings from the thematic analysis of critical care nurses' encounters in delivering End-of-Life Care (EOLC) to adult patients in the Critical Care Unit (CCU) unveiled three primary themes: Promoting a dignified end, professional preparedness, and inadequate resources. Each of these themes is detailed and exemplified through direct quotes obtained from interviews. A synopsis of the identified themes and subthemes resulting from the study is presented in Table 2 below.

Table 2: Emerging Themes and Subthemes from the Study Findings

Theme	Subtheme
Promoting a dignified end	Ensuring patient comfort
	Addressing the biopsychosocial needs
Professional Preparedness	Training
	Communication skills
	Counselling support
Inadequate resources	Inadequate equipment
	Inadequate counselling support
	Lack of SOPs

***SOPs** *Standard Operating Procedures*

4.3.1 Promoting a Dignified End

The nurses were asked on their understanding of EOLC. The main theme that came up was promoting a dignified end. According to the respondents, EOLC revolves around ensuring a dignified death through the provision of holistic care to patients. Holistic care, according to their narration is focusing on the patient as a whole and not just limiting care to the clinical condition. The two main subthemes that came out of the participants' responses were; patient comfort and addressing patient's biopsychosocial needs as presented in the following sections.

4.3.1.1 Patient Comfort

Some CCNs in this study narrated patient comfort as a way of describing EOLC. They revealed that during EOL, patient treatment is centered around ensuring that the patient is comfortable in

every way as active management would not reverse the patient's deteriorating condition. Under patient comfort, two aspects of patient comfort emerged: Alleviating suffering and preserving patients' integrity.

Participants deemed alleviation of pain among patients undergoing EOLC as a critical element of their management. These patients may not always be in a position to tell you that they are not comfortable, and the respondents felt it was their role to alleviate suffering to provide comfort. Below are excerpts from the interviews on alleviation of pain;

> "*Sure! EOLC, you know, it means a lot to me as a critical care nurse. It's all about promoting a dignified end for patients who are in their final stages of life due to chronic conditions. We focus on alleviating their suffering*". [N14]

> "*EOLC means a lot to me as a critical care nurse. EOLC aims to alleviate suffering during the disease process*". [N19]

Another respondent narrated that EOLC meant providing comfort and support through a soothing and calming environment. Pain management was also reported by this respondent as being part of providing EOLC.

> "*When it comes to end-of-life care, we strive to create a calming and soothing environment for patients. We also focus on effective pain management, ensuring they are as comfortable as possible*". [N21]

Some interviewees reported that patients undergoing end of life care have self-care deficit. Doing for these patients what they cannot do for themselves according to the nurses is preserving human dignity.

"*It's all about promoting a dignified end for patients who are in their final stages of life due to chronic conditions. We focus on preserving their integrity through respect and privacy*". [N14]

"*It's an approach to promoting a dignified end of activities that someone is not able to do due to their chronic conditions, which have brought them to the final stages of life. EOLC aims to promote integrity by caring for patients in a respected manner*". [N19]

The second subtheme on promoting a dignified end was addressing the patients' biopsychosocial needs. This subtheme is elaborated in the section below.

4.3.1.2 Addressing the Biopsychosocial Needs

Some of the CCNs reported that EOLC to them meant addressing patients' biopsychosocial needs. Through biopsychosocial support, the biological needs of the patients e.g., nutrition, treatment mainly pain relief and elimination are promoted. The psychological support addresses the spiritual needs of the patients either through prayers by relatives or inviting the chaplaincy. The social support is addressed through allowing visitations, counselling and appraising relatives whose loved ones are in the EOL stage.

One respondent reported that patients with terminal illnesses get complications. And in this regard, nurses are tasked to take care of these patients in terms of providing treatment for those complications:

"*Basically, it is the care we provide to patients, mostly those with terminal illness. Some get complications so we care for them. We normally keep injuries clean for the patients that are injured, administer mechanical ventilation and drugs which support their lives*". [N6]

Provision of holistic care entails caring for all aspects of the patients' needs, spiritual care being one of them. The interviews also revealed that the nurses who had the idea of holistic care also mentioned that the spiritual needs of the patients were crucial during EOLC. A participant mentioned that EOLC meant delivering empathetic care to EOLC patients and that it entails managing their emotional and spiritual needs.

> "*When it comes to EOLC, it involves providing compassionate care to patients nearing the end of their lives. It entails managing their emotional and spiritual needs through prayers by relatives or inviting the chaplaincy*". [N10]

> "*Family involvement, visitation, and chaplaincy are also essential in meeting the patient's spiritual and emotional needs. As nurses, we also pray for the patients before starting our duties*". [N19]

Participants also reported that family involvement in the achievement of holistic care was key. That the care goes beyond the patient since the patient is not likely to recover because of their condition, therefore relatives have to be involved. Below is what the respondents said;

> "*To me it means that the patient is in a critical situation where there is no assurance of recuperation and that the outcome is likely to be death and with such, you have to take care of them holistically, including the relatives. So, it is transitions beyond just the patients*". [N5]

> "*It also involves supporting their families emotionally and providing them with the necessary information to make informed decisions*". [N11]

4.3.2 Professional Preparedness

The nurses were asked about how prepared they felt they were in providing EOLC. The respondents narrated the perceptions on their state of preparedness and the key theme that was picked from their responses was need for professional preparedness in EOLC. Professional preparedness manifested through three subthemes; undergoing training, possessing communication skills and proficiency in therapeutic support. Nurses considered these three subthemes as very helpful when dealing with anxious families, and patients who are highly dependent on equipment for life support.

4.3.2.1 Training

The respondents reported that training was key in the preparedness in provision of EOLC. They stated that some aspects of EOLC were incorporated in their training program and that it helped them deal with certain aspects of EOLC.

> "*I went through some aspects of end-of-life during my basic training. This in some sense prepared me to care for patients in their end of life*". *[N10]*

However, there are those who felt that there was need for more training to fully understand and care for patients during EOLC. While some participants reported that they were ready to provide care for patients undergoing EOLC having received adequate training or through experience, some felt they were not fully prepared and needed more training on how to care for this category of patients.

> *"A bit prepared. There is more training that I need so that I can be able to handle patients in this condition". [N7]*

Other respondents felt they were fully prepared but needed more training. One participant said she/he was prepared but felt there is a necessity for more education in EOLC because not all cases are the same and there is a need for frequent updates.

> *"I am prepared, I am skilled and have a lot of experience on what to do and where. I know how to balance among the rest. The trainings are never enough. There are new cases coming up from time to time. Sometimes a new nurse comes up and shows you that things are now done different from what you knew". [N9]*

4.3.2.2 Communication Skills

The participants also reported that for effective delivery of EOLC to patients, certain skills were required. They said these skills are important both when caring for the patients and attending to the requirements of the family and relatives.

Some participants reported that part of being prepared to care for EOL patients was having the right skills in communication such as not being judgmental, self-aware and empathy during communication with relatives. This they said has enabled them deal with difficult situations especially after a patient has died when handling relatives.

> "*Communication skills are absolutely vital, especially therapeutic communication and building therapeutic relationships. I strive to be non-judgmental and self-aware in every situation. Showing genuine interest and empathy is crucial when dealing with the emotions and feelings of the patient's relatives*". [N14]

> "*Communication skills are vital, especially therapeutic communication. I strive to be non-judgmental and maintain self-awareness of the situation. Genuine interest and empathy play a significant role".* [N19]

Other respondents reported that in order to provide the right EOLC, listening skills are paramount. Listening skills are particularly important when addressing the needs of the next of kin. To be able to respond to relatives effectively, listening to the relatives they said was key to being able to address their information needs.

> "*Practicing confidentiality and effective listening skills are crucial, particularly when handling the emotions and feelings of the patient's relatives*". [N19]

4.3.2.3. Counseling Support

Counseling was reported by some of the interviewees as a component of readiness to offer EOLC. Counseling mostly applies to the relatives of the patients who have to be helped to cope with the conditions of their patients or ultimately the loss of their kin and even during grieving.

> "*Once we admit a patient, the family is aware. We also update them on what is happening to the patient. When the outcome is not good, we involve a counselor*". [N6]

> "*We have a dedicated counselor in the unit to assist us. Additionally, we have someone in charge of social skills during resuscitations to manage the emotional challenges of relatives and significant others*". [N19]

One respondent reported that they do provide direct counseling in EOLC. This happens especially when the counselor is not around. The respondent added that not every nurse is allowed to do counselling but only a selected few.

> "*Due to various reasons, only a few selected individuals are authorized to handle such counseling sessions when they are done by nurses".* [N15]

4.3.3 Inadequate Resources

The CCNs were asked about the barriers to provision of EOLC. They narrated their perceptions on the barriers that they faced. These barriers were described under the theme; Inadequate resources. The main subthemes that emerged under this theme were inadequate equipment, lack of counseling support and lack of standard operating procedures. These subthemes have been expounded below.

4.3.3.1 Inadequate Equipment

The first subtheme to emerge as a challenge to caring for patients in EOL was equipment inadequacy. Equipment availability is a fundamental part of the provision of EOLC. Equipment challenges manifested through: Scarcity of equipment e.g., syringe pumps and lack of ventilator accessories and machine failures especially ventilators. This presents a big challenge in managing of patients in their last stage of life and the care is resource consuming. Some participants reported that they had enough equipment while some said there was not enough.

"I think the equipment is enough for every bed". [N7]

"There is enough equipment, and they are the best". [N8]

Some participants felt that they did not have enough equipment in the delivery of EOLC. Below is what they said.

"We actually have less of a lot of things; feeding pumps, sometimes you put fluid and you come back and find it not working". [N9]

"Adequate access to essential resources and equipment can sometimes be a challenge in end-of-life care. Availability of specialized equipment, such as pain management tools and comfort aids, may vary". [N10]

"*We work in a resource constrained area, not every other time we are supplied with whatever we need*". [N2]

Critical care nurses reported that sometimes the equipment does not work. It is clear now from the highlighted results that working equipment is crucial in delivering care to patients in EOLC. In the absence of such equipment, providing care can be really difficult. A participant reported that machine failures can overwhelm nurses during provision of EOLC. This is mainly because patients approaching the end of their life are highly dependent on machines.

"*Another challenge that we face is being overwhelmed especially during machine failures e.g., ventilators which may delay patient's admission*". [N6]

4.3.3.2 Inadequate Counselling Support

Counselling support is necessary for staff who take care of end-of-life patients. Due to frequent deaths and taking care of patients with multiple morbidities, the staff get affected psychologically. Nurses reported that due to the nature of their work when it comes to care of EOL patients, they get psychological and physical health challenges. Losing patients after taking care of them for long takes a toll on their mental health. In addition, taking care of patients knowing very well that they will not recover is psychologically challenging.

"*Yes, when you have been taking care of them for a long time and they are not doing well, it affects you psychologically because there is nothing you can do, so you just wait for the relative to accept*". [N7]

"*Some of the patients are still young and taking care of them can affect you mentally*". [N8]

Participants also reported that despite the psychological challenges they go through, they do not have any form of support from the hospital to help them take care of their mental health. According

to the participants, they are forced to seek help through talking to their colleagues as a form of debriefing.

> "*Okay apart from providing what we need or work, this [psychological support] is something that we suggested a while back and it has never been implemented. We are the ones who take care of the patients and deal with the relatives so there should be some form of debriefing where we talk if someone is deeply affected. We proposed this 2 years ago, it is happening in other hospitals but not this one. Every nurse deal with these issues on their own but sometimes we talk to each other*." [N4]

4.3.3.3 Lack of Standard Operating Procedures (SoPs)

Standard operating procedures e.g., do not resuscitate orders, withholding of life support and withdrawing life support can be helpful in guiding nurses on the steps to take when patients show no signs of recovery. This, they said, would act as a guide to what to do when a patient is not likely to recover and at what time.

Nurses narrated that there were no standard operating procedures on EOLC in the CCU. One respondent added that it would have been helpful to have clear guidelines to follow to ensure that every patient receives consistent and quality care.

> "*Unfortunately, I haven't come across any standardized guidelines or protocols specific to end-of-life care in the CCU. It would be helpful to have clear guidelines to follow, ensuring that all patients receive consistent and quality care during their final moments*". [N11]

> "*No, we don't have standard operating procedures. If there are, then not that I know of. They can be really helpful to us in knowing what to do at every stage of end-of-life care".* [N5]

Summary of Findings

Critical care nurses involved in this research interpreted EOLC as the promotion of patient comfort and the provision of biopsychosocial support. Through biopsychosocial support, the biological needs of the patients e.g., nutrition, treatment mainly pain relief and elimination are promoted. The psychological support addresses the spiritual needs of the patients either through prayers by relatives or inviting the chaplaincy. The social support is addressed through allowing visitations, counselling and appraising relatives whose patients are in the EOL stage.

Critical care nurses were partially prepared in provision of EOLC through training, communication skills in which empathy, self-aware and being non-judgmental were considered crucial. The unit also had counsellors especially for patients' relatives who assisted in the grieving process.

Several barriers were identified e.g., inadequate equipment where there were not enough syringe pumps to administer pain medication; inadequate counselling support especially for the nurses after losing patients who they have cared for over a long period. Lack of SOPs e.g., when to withdraw or withhold life support and DNR orders were also considered barriers to EOLC by the nurses.

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This segment includes an exploration of the key findings derived from the study. The main areas of discussion are dignified death, professional preparedness and inadequate resources in the provision of EOLC.

5.1 Dignified death or good death as described in the literature

Patients who need specialized support during the end stage of living are usually managed in critical care settings. Critical care nurses invest the greatest amount of time with these patients, making their comprehension of end-of-life care pivotal in providing adequate care. In the current study, critical care nurses identified one theme as promoting dignified death. In EOLC, a "good death" is often characterized by several factors, including passing away in one's preferred location, maintaining positive relationships with family members, experiencing physical and psychological comfort, and fostering a positive rapport with healthcare providers (Chindaprasirt et al., 2019). Regarding this study, the CCNs had a fairly good understanding of what EOLC entailed. End of life care meant promoting dignified death through ensuring patient comfort and addressing the biopsychosocial needs. However, the EOLC patients in this set up were unconscious and mechanically ventilated and hence passing away in one's preferred location and maintaining a good rapport with health care providers was not attainable. Under patient comfort, alleviating suffering and ensuring patient dignity were at the center of EOLC. To minimize suffering in this study, pain management and helping patients in daily care was key. This study's results are in agreement with the findings that approximately 40% of clients in EOLC suffer moderate to severe pain and its alleviation through pain management improves patients' comfort (Blinderman & Billings, 2015). Since modern medicine does prolong life through the use of machines, suffering

is likely to be prolonged when symptoms such as pain are under-recognized. With this in mind, pain management should be a priority in managing of patients at the EOL (Ong & Forbes, 2005; Ferrel et al., 2015).

Patients in the end stage of life are totally dependent on those caring for them. Maintaining human dignity at all stages is key to prevent dehumanization of such patients. Regarding this study, ensuring human dignity when caring for patients in their end stage of life was part of promoting patients' comfort. This mainly centered on maintenance of patients' privacy and respect when providing care. Respect when caring for the patients has been mentioned as one way of promoting human dignity in the nursing profession (Guo & Jacelon, 2014; Parandeh et al., 2016).

End-of-life care entails meeting biopsychosocial demands of the patients. The patient's biological needs as reported included, elimination needs, treatment and nutrition. Psychological needs of the patients are addressed through fulfilling their spiritual needs e.g., through prayer or inviting the chaplaincy while social needs addressed the family in connection with the patient's condition i.e., through counselling the relatives, appraising the family on patient's condition and permitting visitation. Among 239 patients referred for hospice care, physical (clinical) needs e.g., nutritional support, elimination and pain relief requirements were documented for 91% of them which is in support of the findings of this study. Contrary to our findings, patients' spiritual needs were rarely documented (Finucane et al., 2021). The failure to document spiritual needs has been attributed to a lack of space in the referral forms. Recognizing spirituality has been reported as key in delivery of EOLC. This in turn helps CCNs to support patients spiritually and also recognize spiritual distress among their clients (O'Brien et al., 2019). A study by Chahrour et al. (2021) on health care workers also reported that patients approaching the end of their life often find that their spiritual needs are not addressed by their caregivers, even though these needs are essential.

5.2 Professional preparedness

Patients nearing the end of their life have various demands. Therefore. The CCNs require certain competencies for them to meet these demands. This includes: Management of pain, symptom control, ethical issues, cultural and spiritual considerations, and effective communication (Ferrell, Malloy, & Virani, 2015). This is because a large number of the patients have self-care deficit. In this regard, CCNs must be ready to provide the much-needed care from physical health and spiritual care to handling anxious family members.

Under the theme professional preparedness, the results revealed that CCNs delivering EOLC are inadequately prepared to provide EOLC. They need training, communication competency, and therapeutic support to satisfactorily provide care and address the needs of the patients' relatives. It is necessary that CCNs be equipped and prepared with high therapeutic communication skills such as not being judgmental, self-aware and empathy when handling patients' relatives as well as relevant information that facilitates the provision of EOLC, which is made possible through training. In this study, nurses reported the need for more training on EOLC and equipment use which is in agreement with Subih et al., (2022) who noted inadequate and inconsistent training among CCNs. Others narrated that through experience, they are better placed to offer EOLC. Lack of knowledge and training on EOLC may result in challenges when providing care to the patients and also addressing the relatives. It may also result in the lack of involvement in the care plan of patient and ineffective provision of EOLC because they are not skilled in providing EOLC (Ho et al, 2022). Further, Chan (2022) stated that nurses who underwent EOLC training encountered fewer obstacles in implementing EOLC compared to their counterparts who had not undergone such training.

Regarding communication skills, a study by Coyle et al. (2015) reported that nurses' confidence in addressing topics related to death, dying, and EOLC goals saw an increase following their participation in a communication skills workshop. This shows that communication skills are necessary when managing clients nearing the end of their life. An article by Pathways on importance of communication concludes that nurses require proper training to therapeutically communicate and care for their patients as well as address the concerns of the family ('The Importance of Effective Communication at End of Life | Pathways', n.d.). Successful EOLC is not limited to holding the conversation but also having prior information on the patients and their requirements (Pfeifer & Head, 2018).

Information sharing is an extension of communication skills, this area was identified by the nurses and it mainly involved bringing family on board especially in decisions regarding patient's care. Culturally, approach to death varies from one community to another. Communication of death also differs culturally and sharing information with family has to be culturally acceptable (Pun et al., 2023). In some instances, this study revealed that information sharing was left to those most qualified so as to pass the right message. Effective information sharing on disease progression in EOLC is crucial as family involvement in decision-making is necessary (Ekberg et al., 2021). In the Kenyan setting, appraising relatives on the patient's condition is usually a team approach by nurses and doctors. Nurses tend to be the ones sharing information mostly since they are always with the patient and this is documented in the next of kin information chart. The information shared by the doctors is usually documented in the patients' files.

5.3 Inadequate resources

A study by Chalk et al. (2021) stated that a significant amount of additional physical and human resources was needed to alleviate suffering at the EOL. One of the physical resources mentioned

here were syringe pumps which were said to increase by an average of 9.35. Human resource was mainly in terms of nurses and nurse assistants. In this study, a number of challenges emerged when it comes to provision of EOLC by CCNs. These challenges were classified under the theme inadequate resources. The subthemes that emerged were inadequate equipment, inadequate counselling support and lack of standard operating procedures (SoPs).

Inadequate equipment came out as a barrier to provision of EOLC. Nurses in this study narrated that most patients in EOLC need equipment such as ventilator machines, syringe pumps for administering pain medications e.g., morphine infusion which were not enough and sometimes fail. This study showed that the equipment are scarce and often fail. Nurses reported that having adequate and functioning equipment was necessary in EOLC though this was not the case. These results are in agreement with the study on 13 CCNs by Somayeh et al. (2022) that revealed the presence of modern and sufficient equipment is deemed essential for delivering effective care, while the absence of such equipment can result in work disruptions, delays, inadequate care, and emotional exhaustion.

This study identified health challenges in nurses that were both physical and psychological. The nurses report inadequate support in terms of counselling services from the institution. The nurses in the current study reported that they experienced burnout after working for long hours and emotional breakdown when they lose patients after nursing and bonding with them. Despite these challenges, nurses reported that they get little to no help from the hospital. These challenges have been identified in the literature as contributing to barriers in caring for patients at the end stage of their living (Moradi et al., 2021). A study by Lima et al. (2023) showed that 68% of nurses working in the CCU had been exposed to burnout and a meta-analysis by Ramírez-Elvira et al. (2021) showed that 31% of CCNs working in the CCU suffered mental exhaustion. Studies have also

shown than CCNs experience emotional problems such as stress, insomnia, depression and anxiety while providing EOLC (Lalani et al., 2018; Noome et al., 2016; Ozga et al., 2020). They exhibit different psychological issues, helplessness, discomfort and fatigue because of working in a stressful environment with high mortality rate. Critical care nurses sacrifice their relationships - professional and personal-leading to emotional imbalance in life (Bilal et al., 2022).

A lack of standard operating procedures was identified as a barrier in provision of EOLC. Nurses reported that there were no established guidelines on what happens at what time even when there are no chances of the patient making it. Lack of SOPs has also been identified by (Blaževičienė et al., 2020). Even in settings where there are SOPs, nurses fail to use them due to time constraints while others are not aware of them (Lödel et al., 2020). The commonly used SOPs as outlined in literature includes withdrawal of life support, withholding life support (Zhong et al., 2022) and do not resuscitate orders (Piryani & Piryani, 2018).

5.4 Conclusion

In conclusion, the study illuminates the multifaceted landscape of end-of-life care within critical care units. While nurses exhibit a commendable understanding of EOLC, the findings underscore a notable gap in the preparedness of CCNs. This inadequacy necessitates targeted training, improved communication competency, and therapeutic support to bridge existing gaps and elevate the standard of care. Importantly, our study captures a spectrum of experiences among CCNs, ranging from adherence to expected standards to instances falling below benchmarks. These varied experiences contribute significantly to the overall understanding of EOLC within critical care settings. Despite the dedication of CCNs, barriers such as resource inadequacy—comprising insufficient equipment, limited counseling services, and the absence of Standard Operating Procedures (SOPs)—challenge the optimal provision of care. Future interventions should address

both overarching preparedness gaps and individual experiences, ensuring a comprehensive enhancement of end-of-life care practices in critical care units.

5.5 Recommendations

Training on End-of-Life Care: Since the critical care nurses reported that they were not adequately equipped with EOL knowledge, it is crucial to provide comprehensive training programs for CCNs to effectively deliver end-of-life care services. These programs should encompass theoretical education covering principles of EOLC, including management of pain, symptom control, communication skills, ethical considerations, cultural and spiritual aspects, as well as addressing loss, grief, and bereavement. Additionally, practical training sessions, such as simulations or continuous medical education on EOLC can help nurses develop the necessary competencies and assertion in delivering compassionate EOLC. Moreover, further investigation is recommended in exploring the long-term effectiveness of continuous professional development opportunities, workshops, and conferences in sustaining improved EOLC practices could provide valuable insights.

Equipment: The CCNs reported the necessity to be equipped with the required resources to aid them in delivering optimal EOLC such as syringe pumps for morphine infusion. This is because pain management is key in ensuring patient comfort in EOLC. The equipment should be enough and functioning.

Psychological Support: Nurses in this unit encountered emotional breakdown when providing EOLC. Increasing the number of in-house counselors is necessary. Additionally, there is need for the hospital to consider other support mechanisms e.g., regular peer support sessions and reflective practice groups which contribute to creating a supportive environment for nurses to process their emotions and develop coping strategies. Research data is recommended to measure the

effectiveness of increased in-house counselors and additional support mechanisms, such as peer support sessions and reflective practice groups. Evaluating the psychological well-being of CCNs over time through quantitative measures can shed light on the efficacy of these interventions in mitigating emotional breakdowns during EOLC provision.

Standard Operating Procedures (SOPs): The CCNs noted a lack of SOPs on EOLC in the CCU. The development and implementation of SOPs specific to EOLC in CCU is essential to guide practice. The SOPs need to address various aspects of EOLC, including management of pain, symptom management, communication skills and ethical considerations. Further, the SOPs should in-cooperate aspects of DNR, WHLS and WDLS.

REFERENCES

Abate, S. M., Assen, S., Yinges, M., & Basu, B. (2021). Survival and predictors of mortality among patients admitted to the intensive care units in southern Ethiopia: A multi-center cohort study. *Annals of Medicine and Surgery (2012)*, *65*, 102318. https://doi.org/10.1016/j.amsu.2021.102318

Alshenqeeti, & Hamza. (2019). *Representation of Culture in EFL Textbooks and Learners' Preference* (SSRN Scholarly Paper 3709387). https://papers.ssrn.com/abstract=3709387

Alsohime, F., Temsah, M.-H., Al-Eyadhy, A., Ghulman, S., Mosleh, H., & Alsohime, O. (2021). Technical Aspects of Intensive Care Unit Management: A Single-Center Experience at a Tertiary Academic Hospital. *Journal of Multidisciplinary Healthcare*, *14*, 869–875. https://doi.org/10.2147/JMDH.S294905

American Association of Critical Care Nurses, *Palliative and End-of-Life Care* https://www.aacn.org/clinical-resources/palliative-end-of-life#

Axelsson, B. (2022). The Challenge: Equal Availability to Palliative Care According to Individual Need Regardless of Age, Diagnosis, Geographical Location, and Care Level. *International Journal of Environmental Research and Public Health*, *19*(7), 4229. https://doi.org/10.3390/ijerph19074229

Beckstrand, R. L., Willmore, E. E., Macintosh, J. L. B., & Luthy, K. E. B. (2021). Critical Care Nurses' Qualitative Reports of Experiences With Physician Behaviors, Nursing Issues, and Other Obstacles in End-of-Life Care. *Dimensions of Critical Care Nursing: DCCN*, *40*(4), 237–247. https://doi.org/10.1097/DCC.0000000000000479

Bilal, M., Mukhtar, F., Kousar, S., Ghani, M., & Khan, M. H. (2022). Nurses' Experiences in end-of-Life Care in an Intensive Care Unit at Tertiary Healthcare Setting, Lahore. *Pakistan Journal of Medical & Health Sciences*, *16*(08), Article 08. https://doi.org/10.53350/pjmhs22168249

Blaževičienė, A., Laurs, L., & Newland, J. A. (2020). Attitudes of registered nurses about the end – of – life care in multi-profile hospitals: A cross sectional survey. *BMC Palliative Care*, *19*(1), 131. https://doi.org/10.1186/s12904-020-00637-7

Blinderman, C. D., & Billings, J. A. (2015). Comfort Care for Patients Dying in the Hospital. *New England Journal of Medicine*, *373*(26), 2549–2561. https://doi.org/10.1056/NEJMra1411746

Bodilsen, J., Nielsen, P. B., Søgaard, M., Dalager-Pedersen, M., Speiser, L. O. Z., Yndigegn, T., Nielsen, H., Larsen, T. B., & Skjøth, F. (2021). Hospital admission and mortality rates for non-covid diseases in Denmark during covid-19 pandemic: Nationwide population based cohort study. *BMJ (Clinical Research Ed.)*, *373*, n1135. https://doi.org/10.1136/bmj.n1135

Boudiab, L. D., & Kolcaba, K. (2015). Comfort Theory. *Advances in Nursing Science*, *38*(4), 270–278. https://doi.org/10.1097/ANS.0000000000000089

Carmel, S., Singer, Y., Yosef-Sela, N., & Bachner, Y. G. (2020). Open communication between caregivers' and terminally ill cancer patients about illness and death: The role of gender - A correlational study. *European Journal of Oncology Nursing: The Official Journal of European Oncology Nursing Society*, *49*, 101828. https://doi.org/10.1016/j.ejon.2020.101828

Chahrour, W. H., Hvidt, N. C., Hvidt, E. A., & Viftrup, D. T. (2021). Learning to care for the spirit of dying patients: The impact of spiritual care training in a hospice-setting. *BMC Palliative Care*, *20*(1), 115. https://doi.org/10.1186/s12904-021-00804-4

Chalk, D., Robbins, S., Kandasamy, R., Rush, K., Aggarwal, A., Sullivan, R., & Chamberlain, C. (2021). Modelling palliative and end-of-life resource requirements during COVID-19: Implications for quality care. *BMJ Open*, *11*(5), e043795. https://doi.org/10.1136/bmjopen-2020-043795

Chindaprasirt, J., Wongtirawit, N., Limpawattana, P., Srinonprasert, V., Manjavong, M., Chotmongkol, V., ... & Sawanyawisuth, K. (2019). Perception of a "good death" in Thai patients with cancer and their relatives. *Heliyon*, *5*(7).

Coyle, N., Manna, R., Shen, M. J., Banerjee, S. C., Penn, S., Pehrson, C., Krueger, C. A., Maloney, E. K., Zaider, T., & Bylund, C. L. (2015). Discussing Death, Dying, and End-of-Life Goals of Care: A Communication Skills Training Module for Oncology Nurses. *Clinical Journal of Oncology Nursing*, *19*(6), 697–702. https://doi.org/10.1188/15.CJON.697-702

Dadfar, M., & Lester, D. (2019). The effectiveness of 8A model death education on the reduction of death depression: A preliminary study. *Nursing Open*, *7*(1), 294–298. https://doi.org/10.1002/nop2.390

Davidson, J. E., Aslakson, R. A., Long, A. C., Puntillo, K. A., Kross, E. K., Hart, J., Cox, C. E., Wunsch, H., Wickline, M. A., Nunnally, M. E., Netzer, G., Kentish-Barnes, N., Sprung, C. L., Hartog, C. S., Coombs, M., Gerritsen, R. T., Hopkins, R. O., Franck, L. S., Skrobik, Y., … Curtis, J. R. (2017). Guidelines for Family-Centered Care in the

Neonatal, Pediatric, and Adult ICU. *Critical Care Medicine*, *45*(1), 103–128. https://doi.org/10.1097/ccm.0000000000002169

De la Fuente-Solana, E. I., Pradas-Hernández, L., Ramiro-Salmerón, A., Suleiman-Martos, N., Gómez-Urquiza, J. L., Albendín-García, L., & Cañadas-De la Fuente, G. A. (2020). Burnout Syndrome in Paediatric Oncology Nurses: A Systematic Review and Meta-Analysis. *Healthcare (Basel, Switzerland)*, *8*(3), 309. https://doi.org/10.3390/healthcare8030309

Devlin, John W., Skrobik, Yoanna., Gélinas, Céline., Needham, Dale M., Slooter, Arjen J. C., Pandharipande, Pratik P., Watson, Paula L., Weinhouse, Gerald L., Nunnally, Mark E., Rochwerg, Bram., Balas, Michele C., van den Boogaard, Mark; Bosma, Karen J., Brummel, Nathaniel E., Chanques, Gerald., Denehy, Linda., Drouot, Xavier., Fraser, Gilles L., Harris, Jocelyn E., Joffe, Aaron M., Kho, Michelle E., Kress, John P.; Lanphere, Julie A., McKinley, Sharon., Neufeld, Karin J., Pisani, Margaret A., Payen, Jean-Francois., Pun, Brenda T., Puntillo, Kathleen A., Riker, Richard R., Robinson, Bryce R. H., Shehabi, Yahya., Szumita, Paul M.; Winkelman, Chris., Centofanti, John E.; Price, Carrie., Nikayin, Sina., Misak, Cheryl J., Flood, Pamela D., Kiedrowski, Ken MA; Alhazzani, Waleed. (2018) Clinical Practice Guidelines for the Prevention and Management of Pain, Agitation/Sedation, Delirium, Immobility, and Sleep Disruption in Adult Patients in the ICU. *Critical Care Medicine 46(9):p e825-e873,.* | DOI: 10.1097/CCM.0000000000003299

Dirks, J. L. (2019). Effective Strategies for Teaching Teamwork. *Critical Care Nurse*, *39*(4), 40–47. https://doi.org/10.4037/ccn2019704

Egan, R., MacLeod, R., Jaye, C., McGee, R., Baxter, J., Herbison, P., & Wood, S. (2017). Spiritual beliefs, practices, and needs at the end of life: Results from a New Zealand national hospice study. *Palliative & Supportive Care*, *15*(2), 223–230. https://doi.org/10.1017/S147895151600064X

Ekberg, S., Parry, R., Land, V., Ekberg, K., Pino, M., Antaki, C., Jenkins, L., & Whittaker, B. (2021). Communicating with patients and families about illness progression and end of life: A review of studies using direct observation of clinical practice. *BMC Palliative Care*, *20*(1), 186. https://doi.org/10.1186/s12904-021-00876-2

Fan, S.-Y., Wang, Y.-W., & Lin, I.-M. (2018). Allow natural death versus do-not-resuscitate: Titles, information contents, outcomes, and the considerations related to do-not-resuscitate decision. *BMC Palliative Care*, *17*, 114. https://doi.org/10.1186/s12904-018-0367-4

Fernandez, R., Lord, H., Halcomb, E., Moxham, L., Middleton, R., Alananzeh, I., & Ellwood, L. (2020). Implications for COVID-19: A systematic review of nurses' experiences of working in acute care hospital settings during a respiratory pandemic. *International Journal of Nursing Studies*, *111*, 103637. https://doi.org/10.1016/j.ijnurstu.2020.103637

Finucane, A. M., Swenson, C., MacArtney, J. I., Perry, R., Lamberton, H., Hetherington, L., Graham-Wisener, L., Murray, S. A., & Carduff, E. (2021). What makes palliative care needs "complex"? A multisite sequential explanatory mixed methods study of patients referred for specialist palliative care. *BMC Palliative Care*, *20*(1), 18. https://doi.org/10.1186/s12904-020-00700-3

Frechette, J., Bitzas, V., Aubry, M., Kilpatrick, K., & Lavoie-Tremblay, M. (2020). Capturing Lived Experience: Methodological Considerations for Interpretive Phenomenological Inquiry. *International Journal of Qualitative Methods*, *19*, 1609406920907254. https://doi.org/10.1177/1609406920907254

Granek, L., Nakash, O., Ariad, S., Shapira, S., & Ben-David, M. (2019). Mental Health Distress: Oncology Nurses' Strategies and Barriers in Identifying Distress in Patients With Cancer. *Clinical Journal of Oncology Nursing*, *23*(1), 43–51. https://doi.org/10.1188/19.CJON.43-51

Griffith, S. (2018). Prepared for end-of-life care: A concept analysis. *International Journal of Palliative Nursing*, *24*(8), 399–410. https://doi.org/10.12968/ijpn.2018.24.8.399

Groenewald PHENOMENOLOGICAL DESIGN. (n.d.). Retrieved 29 June 2023, from https://sites.ualberta.ca/~iiqm/backissues/3_1/html/groenewald.html

Guo, Q., & Jacelon, C. S. (2014). An integrative review of dignity in end-of-life care. *Palliative Medicine*, *28*(7), 931–940. https://doi.org/10.1177/0269216314528399

Hall, M. A. (2020). Critical Care Registered Nurses' Preparedness in the Provision of End-of-Life Care. *Dimensions of Critical Care Nursing*, *39*(2), 116. https://doi.org/10.1097/DCC.0000000000000406

Hassan, N. E., Reischman, D. E., Fitzgerald, R. K., Faustino, E. V. S., & Prophylaxis Against Thrombosis Practice (PROTRACT) Study Investigators and the Pediatric Acute Lung Injury and Sepsis Investigators (PALISI)/BloodNet Investigators. (2018). Hemoglobin Levels Across the Pediatric Critical Care Spectrum: A Point Prevalence Study. *Pediatric*

Critical Care Medicine: A Journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies, *19*(5), e227–e234. https://doi.org/10.1097/PCC.0000000000001467

Jiménez-Giménez, M., Sánchez-Escribano, A., Figuero-Oltra, M. M., Bonilla-Rodríguez, J., García-Sánchez, B., Rojo-Tejero, N., Sánchez-González, M. Á., & Muñoz-Lorenzo, L. (2021). Taking Care of Those Who Care: Attending Psychological Needs of Health Workers in a Hospital in Madrid (Spain) During the COVID-19 Pandemic. *Current Psychiatry Reports*, *23*(7), 44. https://doi.org/10.1007/s11920-021-01253-9

Kalyan, G., Bibi, R., Kaur, R., Bhatti, R., Kumari, R., Rana, R., Kumari, R., Kaur, M., & Kaur, R. (2020). Knowledge and Practices of Intensive Care Unit Nurses Related to Prevention of Ventilator Associated Pneumonia in Selected Intensive Care Units of a Tertiary Care Centre, India. *Iranian Journal of Nursing and Midwifery Research*, *25*(5), 369–375. https://doi.org/10.4103/ijnmr.IJNMR_128_18

Kamal, A. H., Bull, J. H., Wolf, S. P., Swetz, K. M., Shanafelt, T. D., Ast, K., Kavalieratos, D., Sinclair, C. T., & Abernethy, A. P. (2016). Prevalence and Predictors of Burnout Among Hospice and Palliative Care Clinicians in the U.S. *Journal of Pain and Symptom Management*, *51*(4), 690–696. https://doi.org/10.1016/j.jpainsymman.2015.10.020

Kgosana, A. I. (2017). *Experiences and practises of professional nurses caring for terminally ill cancer patients in Pietersburg Provincial Hospital, Capricorn District of the Limpopo Province* [Thesis]. http://ulspace.ul.ac.za/handle/10386/3952

Kgosana, A. I., Mamogobo, P. M., Mothiba, T. M., & Okafor, U. B. (2019). Experiences and Practices of Nurses Caring for Terminally Ill Cancer Patients: A Qualitative Study. *Global Journal of Health Science*, *11*(3), 44. https://doi.org/10.5539/gjhs.v11n3p44

Klopfenstein, T., Zayet, S., Lohse, A., Balblanc, J.-C., Badie, J., Royer, P.-Y., Toko, L., Mezher, C., Kadiane-Oussou, N. J., Bossert, M., Bozgan, A.-M., Charpentier, A., Roux, M.-F., Contreras, R., Mazurier, I., Dussert, P., Gendrin, V., & Conrozier, T. (2020). Tocilizumab therapy reduced intensive care unit admissions and/or mortality in COVID-19 patients. *Medecine et Maladies Infectieuses*, *50*(5), 397–400. https://doi.org/10.1016/j.medmal.2020.05.001

Lafond, D. A., Bowling, S., Fortkiewicz, J. M., Reggio, C., & Hinds, P. S. (2019). Integrating the Comfort Theory™ Into Pediatric Primary Palliative Care to Improve Access to Care. *Journal of Hospice and Palliative Nursing: JHPN: The Official Journal of the Hospice and Palliative Nurses Association*, *21*(5), 382–389. https://doi.org/10.1097/NJH.0000000000000538

Lai, X. B., Wong, F. K. Y., & Ching, S. S. Y. (2018). The experience of caring for patients at the end-of-life stage in non-palliative care settings: A qualitative study. *BMC Palliative Care*, *17*(1), 116. https://doi.org/10.1186/s12904-018-0372-7

Lalani, H. S., Waweru-Siika, W., Mwogi, T., Kituyi, P., Egger, J. R., Park, L. P., & Kussin, P. S. (2018). Intensive Care Outcomes and Mortality Prediction at a National Referral Hospital in Western Kenya. *Annals of the American Thoracic Society*, *15*(11), 1336–1343. https://doi.org/10.1513/AnnalsATS.201801-051OC

Lima, A., Moreira, M. T., Fernandes, C., Ferreira, M. S., Ferreira, M., Teixeira, J., Silva, M., Parola, V., & Coelho, A. (2023). The Burnout of Nurses in Intensive Care Units and the Impact of the SARS-CoV-2 Pandemic: A Scoping Review. *Nursing Reports*, *13*(1), 230–242. https://doi.org/10.3390/nursrep13010022

Lin, Y., Zhou, Y., & Chen, C. (2023). Interventions and practices using Comfort Theory of Kolcaba to promote adults' comfort: An evidence and gap map protocol of international effectiveness studies. *Systematic Reviews*, *12*(1), 33. https://doi.org/10.1186/s13643-023-02202-8

Liu, Y.-E., Zhai, Z.-C., Han, Y.-H., Liu, Y.-L., Liu, F.-P., & Hu, D.-Y. (2020). Experiences of front-line nurses combating coronavirus disease-2019 in China: A qualitative analysis. *Public Health Nursing (Boston, Mass.)*, *37*(5), 757–763. https://doi.org/10.1111/phn.12768

Lödel, S., Ostgathe, C., Heckel, M., Oechsle, K., & Gahr, S. (2020). Standard Operating Procedures (SOPs) for Palliative Care in German Comprehensive Cancer Centers—An evaluation of the implementation status. *BMC Palliative Care*, *19*(1), 62. https://doi.org/10.1186/s12904-020-00565-6

Martín-Martín, J., López-García, M., Medina-Abellán, M. D., Beltrán-Aroca, C. M., Martín-de-Las-Heras, S., Rubio, L., & Pérez-Cárceles, M. D. (2021). Physicians' and Nurses' Knowledge in Palliative Care: Multidimensional Regression Models. *International Journal of Environmental Research and Public Health*, *18*(9), 5031. https://doi.org/10.3390/ijerph18095031

Moradi, Y., Baghaei, R., Hosseingholipour, K., & Mollazadeh, F. (2021). Challenges experienced by ICU nurses throughout the provision of care for COVID-19 patients: A qualitative study. *Journal of Nursing Management*, *29*(5), 1159–1168. https://doi.org/10.1111/jonm.13254

Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. *The European Journal of General Practice*, *24*(1), 9–18. https://doi.org/10.1080/13814788.2017.1375091

Muskat, B., Greenblatt, A., Anthony, S., Beaune, L., Hubley, P., Newman, C., Brownstone, D., & Rapoport, A. (2020). The experiences of physicians, nurses, and social workers providing end-of-life care in a pediatric acute-care hospital. *Death Studies*, *44*(2), 105–116. https://doi.org/10.1080/07481187.2018.1526829

Nienaber, K., & Goedereis, E. (2015). Death Anxiety and Education: A Comparison Among Undergraduate and Graduate Students. *Death Studies*, *39*(8), 483–490. https://doi.org/10.1080/07481187.2015.1047057

Noome, M., Beneken Genaamd Kolmer, D. M., van Leeuwen, E., Dijkstra, B. M., & Vloet, L. C. M. (2016). The nursing role during end-of-life care in the intensive care unit related to the interaction between patient, family and professional: An integrative review. *Scandinavian Journal of Caring Sciences*, *30*(4), 645–661. https://doi.org/10.1111/scs.12315

O'Brien, M. R., Kinloch, K., Groves, K. E., & Jack, B. A. (2019). Meeting patients' spiritual needs during end-of-life care: A qualitative study of nurses' and healthcare professionals'

perceptions of spiritual care training. *Journal of Clinical Nursing*, *28*(1–2), 182–189. https://doi.org/10.1111/jocn.14648

Ong, C.-K., & Forbes, D. (2005). Embracing Cicely Saunders's concept of total pain. *BMJ (Clinical Research Ed.)*, *331*(7516), 576. https://doi.org/10.1136/bmj.331.7516.576-d

Ozga, D., Woźniak, K., & Gurowiec, P. J. (2020). Difficulties Perceived by ICU Nurses Providing End-of-Life Care: A Qualitative Study. *Global Advances in Health and Medicine*, *9*, 2164956120916176. https://doi.org/10.1177/2164956120916176

Parandeh, A., Khaghanizade, M., Mohammadi, E., & Mokhtari-Nouri, J. (2016). Nurses' human dignity in education and practice: An integrated literature review. *Iranian Journal of Nursing and Midwifery Research*, *21*(1), 1–8. https://doi.org/10.4103/1735-9066.174750

Park, E.-J., & Lee, Y.-M. (2018). Effect of Professional Autonomy, Communication Satisfaction, and Resilience on the Job Satisfaction of Intensive Care Unit Nurses. *Journal of Korean Critical Care Nursing*, 63–74.

Perrin, K., & MacLeod, C. E. (2016). *Understanding the Essentials of Critical Care Nursing*. Pearson Education.

Pfeifer, M., & Head, B. A. (2018). Which Critical Communication Skills Are Essential for Interdisciplinary End-of-Life Discussions? *AMA Journal of Ethics*, *20*(8), 724–731. https://doi.org/10.1001/amajethics.2018.724

Phenomenology—Research Methodology. (n.d.). Research-Methodology. Retrieved 13 September 2023, from https://research-methodology.net/research-philosophy/phenomenology/

Piryani, R. M., & Piryani, S. (2018). Do-Not-Resuscitate (DNR). *Journal of Kathmandu Medical College*, *7*(4), Article 4. https://doi.org/10.3126/jkmc.v7i4.23327

Pun, J., Chow, J. C. H., Fok, L., & Cheung, K. M. (2023). Role of patients' family members in end-of-life communication: An integrative review. *BMJ Open*, *13*(2), e067304. https://doi.org/10.1136/bmjopen-2022-067304

Ramírez-Elvira, S., Romero-Béjar, J. L., Suleiman-Martos, N., Gómez-Urquiza, J. L., Monsalve-Reyes, C., Cañadas-De la Fuente, G. A., & Albendín-García, L. (2021). Prevalence, Risk Factors and Burnout Levels in Intensive Care Unit Nurses: A Systematic Review and Meta-Analysis. *International Journal of Environmental Research and Public Health*, *18*(21), 11432. https://doi.org/10.3390/ijerph182111432

Reyniers, T., Houttekier, D., Cohen, J., Pasman, H. R., & Deliens, L. (2014). The acute hospital setting as a place of death and final care: A qualitative study on perspectives of family physicians, nurses and family carers. *Health & Place*, *27*, 77–83. https://doi.org/10.1016/j.healthplace.2014.02.002

S, M., C, G., & A, C. (2018). Palliative care in intensive care units: Why, where, what, who, when, how. *BMC Anesthesiology*, *18*(1). https://doi.org/10.1186/s12871-018-0574-9

Salins, N., Gursahani, R., Mathur, R., Iyer, S., Macaden, S., Simha, N., Mani, R. K., & Rajagopal, M. R. (2018). Definition of Terms Used in Limitation of Treatment and Providing Palliative Care at the End of Life: The Indian Council of Medical Research Commission Report. *Indian Journal of Critical Care Medicine: Peer-Reviewed, Official Publication of Indian Society of Critical Care Medicine*, *22*(4), 249–262. https://doi.org/10.4103/ijccm.IJCCM_165_18

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, *52*(4), 1893–1907. https://doi.org/10.1007/s11135-017-0574-8

Sihre, H. K., Gill, P., Lindenmeyer, A., McGuiness, M., Berrisford, G., Jankovic, J., Patel, M., Lewin, J., & Fazil, Q. (2019). Understanding the lived experiences of severe postnatal psychiatric illnesses in English speaking South Asian women, living in the UK: A qualitative study protocol. *BMJ Open*, *9*(8), e025928. https://doi.org/10.1136/bmjopen-2018-025928

Sjöberg, M., Edberg, A.-K., Rasmussen, B. H., & Beck, I. (2021). Documentation of older people's end-of-life care in the context of specialised palliative care: A retrospective review of patient records. *BMC Palliative Care*, *20*(1), 91. https://doi.org/10.1186/s12904-021-00771-w

Suba S, Sandoval CP, Hu X, Pelter MM. ECG Monitoring during End of Life Care: Implications on Alarm Fatigue. *Multimodal Technologies and Interaction*. 2019; 3(1):18. https://doi.org/10.3390/mti3010018

Subih, M., Al-Amer, R., Malak, M. Z., Randall, D. C., Darwish, R., Alomari, D., & Mosleh, S. (2022). Knowledge of Critical Care Nurses about End-of-Life Care towards Terminal Illnesses: Levels and Correlating Factors. *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, *59*, 469580221080036. https://doi.org/10.1177/00469580221080036

Sundler, A. J., Lindberg, E., Nilsson, C., & Palmér, L. (2019). Qualitative thematic analysis based on descriptive phenomenology. *Nursing Open*, *6*(3), 733–739. https://doi.org/10.1002/nop2.275

The Importance of Effective Communication at End of Life | Pathways. (n.d.). *Pathways Home Health and Hospice*. Retrieved 30 June 2023, from https://pathwayshealth.org/hospice-topics/the-importance-of-effective-communication-at-end-of-life/

Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: Systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*, *18*(1), 148. https://doi.org/10.1186/s12874-018-0594-7

Vijenthira, A., Chiu, N., Jacobson, D., Freedman, Z., Cheung, M. C., Goddard, S., Fowler, R., & Buckstein, R. (2020). Predictors of intensive care unit admission in patients with hematologic malignancy. *Scientific Reports*, *10*(1), Article 1. https://doi.org/10.1038/s41598-020-78114-7

Vincent, J.-L., Sakr, Y., Singer, M., Martin-Loeches, I., Machado, F. R., Marshall, J. C., Finfer, S., Pelosi, P., Brazzi, L., Aditianingsih, D., Timsit, J.-F., Du, B., Wittebole, X., Máca, J., Kannan, S., Gorordo-Delsol, L. A., De Waele, J. J., Mehta, Y., Bonten, M. J. M., … EPIC III Investigators. (2020). Prevalence and Outcomes of Infection Among Patients in Intensive Care Units in 2017. *JAMA*, *323*(15), 1478–1487. https://doi.org/10.1001/jama.2020.2717

Witkamp, F. E., van Zuylen, L., Borsboom, G., van der Rijt, C. C. D., & van der Heide, A. (2015). Dying in the hospital: What happens and what matters, according to bereaved

relatives. *Journal of Pain and Symptom Management*, *49*(2), 203–213. https://doi.org/10.1016/j.jpainsymman.2014.06.013

Wolfe, I. D., & Kon, A. A. (2022). Medical Futility in Pediatrics: Goal-Dissonance and Proportionality. In N. Nortjé & J. C. Bester (Eds.), *Pediatric Ethics: Theory and Practice* (pp. 253–273). Springer International Publishing. https://doi.org/10.1007/978-3-030-86182-7_16

World Health Organization report (2020). *Palliative care.* https://www.who.int/news-room/fact-sheets/detail/palliative-care

Yazdi, K., & Ebrahimpour, Z. (2021). A Review of kolcaba Comfort Theory of Nursing. *Yafteh*, *23*(0), 170–179.

Yoon, S. L., Scarton, L., Duckworth, L., Yao, Y., Ezenwa, M. O., Suarez, M. L., Molokie, R. E., & Wilkie, D. J. (2021). Pain, symptom distress, and pain barriers by age among patients with cancer receiving hospice care: Comparison of baseline data. *Journal of Geriatric Oncology*, *12*(7), 1068–1075. https://doi.org/10.1016/j.jgo.2021.04.008

Zhong, Y., Cavolo, A., Labarque, V., & Gastmans, C. (2022). Physician decision-making process about withholding/withdrawing life-sustaining treatments in paediatric patients: A systematic review of qualitative evidence. *BMC Palliative Care*, *21*(1), 113. https://doi.org/10.1186/s12904-022-01003-5

APPENDIX 1: INFORMED CONSENT FORM FOR PARTICIPANTS

Title of the study: Experiences of critical care nurses in end-of-life care to adult patients in the Critical Care Unit at Kenyatta National Hospital.

Researchers: Linet Akoth Okore, Master of Science in Critical Care Nursing of the University of Nairobi P.O Box 30197-00400 Nairobi, Dr Eunice Omondi, Department of Nursing Sciences of the University of Nairobi, Dr Dorcas Maina, Department of Nursing Sciences of the University of Nairobi**.**

Introduction

I am a student at the department of Nursing Sciences, University of Nairobi pursuing a Master of Science in Critical Care Nursing. I am conducting a study titled experiences of critical care nurses in end-of-life care to adult patients in the Critical Care Unit at Kenyatta National Hospital

Purpose of the study

This study seeks to explore the experiences of critical care nurses in end-of-life care in the Critical Care Unit at Kenyatta National Hospital. The findings of this study may provide a better understanding of experiences of critical care nurses in Critical Care Unit and thus inform policy formulation and implementation for better experiences.

Risks

You will not be predisposed to any physical nor economic risks when taking part in the study. However, the study will require you to take some time off your busy schedule for an interview. Similarly, some questions may require you to provide personal information that may be sensitive to you. If such questions involve painful emotions or any psychological disturbance, several measures will be implemented to ensure your well-being and emotional welfare. First, during data collection, a skilled and experienced researcher will conduct the interviews in a supportive and

empathetic manner. You will be encouraged to express your thoughts, feelings, and experiences at your own pace and comfort level. The researcher will actively listen, provide reassurance, and validate your emotions throughout the interview process. If, during the interview, you become emotionally distressed or express a need for additional support, the researcher will be prepared to halt the interview and provide appropriate assistance. You will be given the option to pause, continue at a later time, or withdraw from the study if necessary. In cases where professional psychological support is required, the researcher will promptly refer you to the Critical Care Unit counselor, who will provide assistance free of charge.

Benefits

Participating in this study does not generate direct monetary benefits. However, the findings of this study may provide a better understanding of experiences of Critical Care Nurses in Critical Care Unit and thus inform policy formulation and implementation for better experiences.

Confidentiality

It is important to note that confidentiality and anonymity will be maintained throughout the study, and any personal information shared will be handled with the utmost care and in compliance with relevant data protection laws and ethical guidelines. The information you provide in this study will only be used for the intended purpose – academics. The information and voice recorded (with your permission) will be stored in a personal drive that no other external party can access. The electronic files will have saved security passwords.

Voluntary Participation

It is voluntary to take part in this study. There is no any implication for refusing to take part in the study. Further, you have the right to withdraw from this study any time and this will not attract any penalty.

Compensation

Taking part in this study does not carry compensation in any form.

Sharing the results

The findings of this study will be disseminated to all relevant stakeholders. For instance, it will be published in journals, presented to the KNH-UON ERC, research department of KNH, and the University of Nairobi (UoN) department of Nursing Sciences.

Contact person

If you have any further questions during or after the research feel free to contact the investigator, the supervisor or the KNH/UON ethics and research committee on the contacts given below

1. Investigator

Name: Linet Akoth Okore

Phone No: 0715774720

Email: linetokore@students.uonbi.ac.ke

Physical address: Department of Nursing Sciences.

Faculty of Health Sciences, University of Nairobi.

Kenyatta National Hospital Campus.

2. Supervisors

Name: Dr Eunice Omondi

Phone No: 0722728123

Email: eaomondi@uonbi.ac.ke

Physical address: Department of Nursing Sciences

Faculty of Health Sciences, University of Nairobi.

Kenyatta National Hospital Campus.

Name: Dr Dorcas Maina

Phone No:0724440843

Email: mainad@uonbi.ac.ke

Physical address: Department of Nursing Sciences

Faculty of Health Sciences, University of Nairobi

Kenyatta National Hospital Campus.

3. Ethics Committee

KNH-UON Ethics and research committee

P.O. Box 20723-00202, Nairobi.

Email: uonknh_erc@uonbi.ac.ke

APPENDIX 11: CONSENT FORM

Participant's statement

I have read this consent form and discussed the purpose of the study with the researcher. The discussion was in the language that I understand. I also understand the benefits and risks of taking part in this study as they have been explained to me. Further, I understand that taking part in this study is voluntary and also that I have the right to withdraw at any stage of the study without any penalty. Therefore, I freely agree to take part in this study.

I understand that the researcher will make all efforts to keep my information and identity confidential and unanimous respectively.

By signing this consent form, my legal rights as a participant in a research study are still intact.

Participant signature/ Thumb stamp _____ Date _____

Researcher's statement

I, the undersigned, has fully explained the relevant details of this research study to the above-named participant and believe that he/she understood and has willingly and freely given his/her consent.

Researcher's name_____ Date_____

Signature _____

APPENDIX III: INTERVIEW GUIDE

Research Title: Experiences of critical care nurses in end-of-life care to adult patients in the Critical Care Unit at Kenyatta National Hospital.

MAIN QUESTIONS	PROBING QUESTIONS
1.What is your understanding of EOLC provision? *The following questions aim to gather your perspectives and insights on end-of-life care (EOLC) provision. We will start by exploring your understanding of this concept.*	1. Please share what EOLC means to you. *The following question aims to gather your perspective on end-of-life care (EOLC) and its significance in your professional practice.* 2. Take me through some of the approaches you employ in providing EOLC. *The next question focuses on the various approaches you utilize in delivering end-of-life care (EOLC).* 3. Share your training journey on EOLC. *In this section, we would like to explore your training experiences and background related to end-of-life care (EOLC).* 4. How do you feel handling EOL patients in CCU? *We are interested in understanding your emotions and perspectives regarding the provision of end-of-life care (EOLC) specifically in the critical care unit (CCU).* 5. What skills do you employ in EOLC? *The question aims to identify the specific skills you utilize when providing end-of-life care (EOLC) to patients*.

	6. Do you get involved in the formulation and implementation of EOLC interventions? *This section explores your level of involvement in the development and execution of end-of-life care (EOLC) interventions.*
2. How prepared do you feel in providing EOLC? *This section focuses on assessing your level of preparedness in delivering end-of-life care (EOLC). Please provide your honest assessment of your preparedness in this area.*	1. What is the status of your preparedness in providing EOLC? *The following question aim to assess your current level of preparedness in delivering end-of-life care (EOLC).* 2. Does the training in EOLC give you confidence in providing EOLC? *In this section, we would like to gauge your level of confidence in providing end-of-life care (EOLC) based on the training you have received.* 3. Do you have any standard operating procedures (SOPs) on the provision of EOLC in the facility that you can always refer to? *We would like to know if there are any policies that govern EOLC in your unit* 4. Do you feel that you need more training so that you can effectively provide EOLC? *We are interested in understanding whether you perceive the need for additional training in order to enhance your ability to provide effective end-of-life care (EOLC).*

	5. What is your perception of the quality of communication between CCNs and patients and their families in EOLC? *The subsequent questions aim to gather your perceptions regarding the quality of communication between CCNs, patients, and their families in the context of end-of-life care (EOLC).* 6. Share your views on the use of EOLC approaches and equipment by CCNs in the CCU. *This section explores your opinions and perspectives on the utilization of end-of-life care (EOLC) approaches and equipment by CCNs specifically in the critical care unit (CCU).*
3.What barriers do you face in providing EOLC? *The subsequent questions aim to identify and understand the challenges and barriers you encounter when providing end-of-life care (EOLC). Kindly share your experiences and*	1. Kindly share some of the challenges you face when providing EOLC in CCU. *The following questions aim to gather information about the specific challenges you encounter when delivering end-of-life care (EOLC) in the critical care unit (CCU).* 2. Have you ever been directly affected while offering EOLC? *We would like know the kind of personal challenges you have faced d while offering EOLC.* 3. How do you deal with the internal (personal) challenges you face in the provision of EOLC?

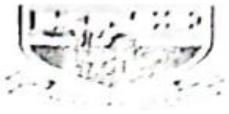
perceptions regarding these obstacles.	*In this section, we are interested in understanding how you cope with the internal or personal challenges that arise during the provision of end-of-life care (EOLC).* 4. Please share about the kind of support you receive from the institution. *The subsequent questions aim to explore the support you receive from your institution in relation to providing end-of-life care (EOLC).* 5. What is your opinion on the use of the CCU for the provision of EOLC? *This section aims to gather your opinions and perspectives on utilizing the critical care unit (CCU) for the provision of end-of-life care (EOLC).* 6. What do you think should be done better to address these challenges? *The final set of questions seeks your insights on potential improvements that can be made to address the challenges you have identified in delivering end-of-life care (EOLC).*

APPENDIX IV: RESEARCH APPROVAL

UNIVERSITY OF NAIROBI
FACULTY OF HEALTH SCIENCES
P O BOX 19676 Code 00202
Telegrams: varsity
Tel (254 020) 2726300 Ext 44355

KNH UON ERC
Email: uonknh.erc@uonbi.ac.ke
Website: http://www.erc.uonbi.ac.ke
Facebook: https://www.facebook.com/uonknh.erc
Twitter: @UONKNH_ERC https://twitter.com/UONKNH_ERC

KENYATTA NATIONAL HOSPITAL
P O BOX 20723 Code 00202
Tel 726300 5
Fax 725272
Telegrams: MEDSUP, Nairobi



Ref: KNH-ERC/A/230

5th June, 2023

Linet Akoth Okore
Reg No. H56/40807/2021
Dept of Nursing Sciences
Faculty of Health Sciences
University of Nairobi

Dear Linet,

ETHICAL APPROVAL-RESEARCH PROPOSAL: EXPLORING EXPERIENCES OF CRITICAL CARE NURSES IN PROVIDING END-OF – LIFE CARE IN THE CRITICAL CARE UNIT, KENYATTA NATIONAL HOSPITAL (P217/03/2023)

This is to inform you that KNH-UoN ERC has reviewed and approved your above research proposal. Your application approval number is **P217/03/2023.** The approval period is 5th June 2023 –4th June 2024

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by KNH-UoN ERC.
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KNH-UoN ERC 72 hours of notification.
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH-UoN ERC within 72 hours.
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to KNH-UoN ERC.

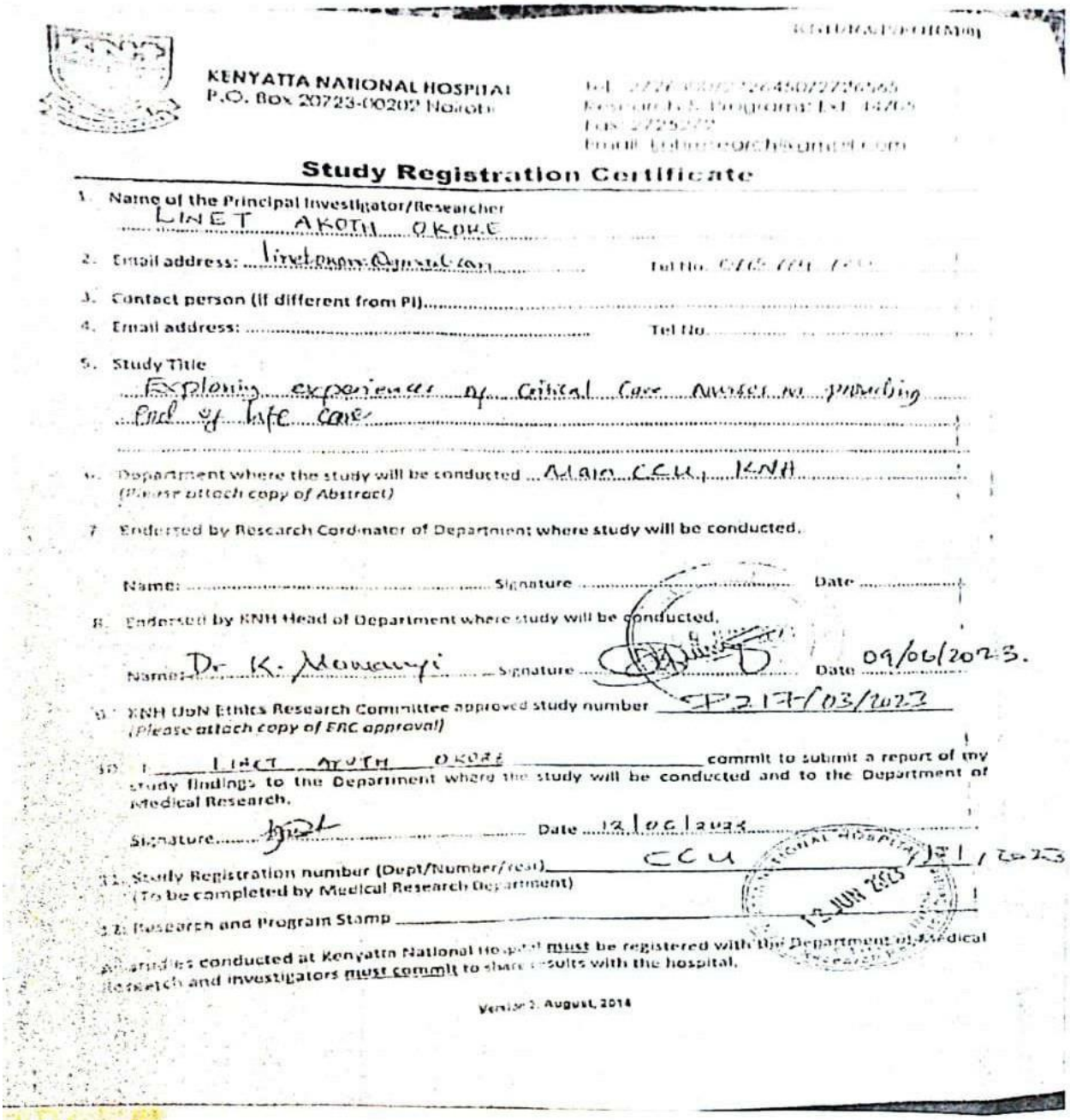
Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

DR. BEATRICE K.M. AMUGUNE
SECRETARY, KNH- UoN ERC

c.c. The Dean, Faculty of Health Sciences, UoN
The Senior Director, CS, KNH
The Chairperson, KNH- UoN ERC
The Assistant Director, Health Information Dept., KNH
The Chair, Dept. of Nursing Sciences, UoN
Supervisors: Dr. Eunice Omondi, Dept of Nursing Sciences, UoN
Dr. Dorcas Maina, Dept of Nursing Sciences, UoN

APPENDIX V: STUDY REGISTRATION CERTIFICATE FROM KNH



KENYATTA NATIONAL HOSPITAL
P.O. Box 20723-00202 Nairobi

Study Registration Certificate

1. Name of the Principal Investigator/Researcher
   LINET AKOTH OKOTH
2. Email address: livelynow@gmail.com Tel No.
3. Contact person (if different from PI).....
4. Email address: ..... Tel No. .....
5. Study Title
   Exploring experiences of Critical Care Nurses in providing End of life Care.
6. Department where the study will be conducted ... Adult CCU, KNH
   (Please attach copy of Abstract)
7. Endorsed by Research Cordinator of Department where study will be conducted.
   Name: ..... Signature ..... Date .....
8. Endorsed by KNH Head of Department where study will be conducted.
   Name: Dr K. Mwaniki Signature ..... Date 09/06/2023.
9. KNH UoN Ethics Research Committee approved study number KP217/03/2023
   (Please attach copy of ERC approval)
10. I LINET AKOTH OKOTH commit to submit a report of my study findings to the Department where the study will be conducted and to the Department of Medical Research.
    Signature ..... Date 12/06/2023
11. Study Registration number (Dept/Number/Year) CCU /21/2023
    (To be completed by Medical Research Department)
12. Research and Program Stamp
    All studies conducted at Kenyatta National Hospital must be registered with the Department of Medical Research and investigators must commit to share results with the hospital.

Version 2: August, 2014