CHALLENGES EXPERIENCED BY INTENSIVE CARE NURSES IN PROVIDING SUPPORT TO FAMILIES OF CRITICALLY ILL PATIENTS AT KENYATTA NATIONAL HOSPITAL

By

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DECLARATION

This thesis is my own personal work and has not been offered in any other institution for examination purposes.

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DEDICATION

I dedicate this thesis to my beloved family. I am deeply grateful for your patience, love and understanding and for walking with me in this journey.

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ABBREVIATIONS

CCFNI	Critical Care Family Needs Inventory
CCU	Critical Care Unit
ED	Emergency Department
FCC	Family Centred Care
FGDs	Focus Group Discussions
FINC-NA	Family Importance in Care - Nurses' Attitudes
FNPS	Family Nursing Practice Scale
HCPs	Health Care Providers
ICU	Intensive Care Unit
KNH	Kenyatta National Hospital
SPSS	Statistical Package for Social Sciences
UoN	University of Nairobi
US	United States
WFICC	World Federation of Intensive and Critical Care
WHO	World Health Organization

OPERATIONAL DEFINITIONS

Intensive care unit: A specialized area in Kenyatta National Hospital where patients with severe illnesses, that threaten their life, are treated and cared for.

Intensive care nurses: Are nurses who work in Kenyatta National Hospital's intensive care units.

Critical illness or injury: Refers to a health condition or event that severely compromises a person's major organ system(s) in a manner that is life threatening.

Critically ill patients: Persons suffering from a critical illness or injury being treated at Kenyatta National Hospital.

Family: Are individuals/persons actively engaged or involved in the care of severely ill patients being treated at Kenyatta National Hospital.

Family centred care: Refers to a health care paradigm that places emphasis on meeting or addressing the values and needs of individual patients' families.

Support needs: Refers to any form of help accorded to families of ICU patients admitted at KNH by the hospital's intensive care nurses.

Challenges: Refers to the difficulties or barriers experienced by individual nurses who work in KNH's intensive care units as they offer support to families of patients with severe illness being treated in the hospital.

Work-related challenges: Refers to any difficulties or barriers that relate to the operating environment which are experienced by ICU nurses at KNH in offering support to families of ICU patients receiving treatment in the hospital.

Capacity-related challenges: Refers to any difficulties or barriers experienced by ICU nurses at KNH that relate to their training, expertise and experience in offering family support within the intensive care setting.

Psychosocial challenges: Refers to any mental and social related difficulties experienced by intensive care nurses at KNH in their work with respect to providing support to families of ICU patients.

ABSTRACT

Background: In critical care settings, patients often cannot communicate with the care providers and hence the critical care team heavily relies on their family members to speak on the patient's behalf including making crucial decisions. Critical care nurses therefore closely interact and work with the intensive care unit (ICU) patients' families in their care role. Providing support to families of ICU patients, thus, constitutes a critical responsibility of nurses working in intensive care settings.

Broad objective: To explore challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital.

Methodology: The study design was descriptive cross-sectional employing mixed-methods with qualitative data embedded in quantitative data. The study site was Kenyatta National Hospital's intensive care units (ICUs). The study's participants consisted of 112 intensive care nurses and ten ICU nurse managers. The sampling technique for the nurses was stratified random sampling technique and the sampling method for the managers was the census method. Quantitative data was collected using a validated questionnaire which sought data on the nurses' demographic information, work-related, capacity-related and psychosocial challenges experienced. Qualitative data was obtained using an interview guide administered on the ICU nurse managers. The study's quantitative data was analyzed using descriptive measures that included percentages and frequencies using SPSS version 24. Further, association between study variables, based on the quantitative data, was evaluated using chi-square test statistic at 95% confidence interval. Results were shown in tables. In addition, content analysis by developing relevant themes on the basis of the study objectives, using NVivo 12, was used in analyzing the study's qualitative data which was then presented in narrative form.

Results: High intensity of ICU work demands (X^2 = 11.636, df = 1 and p = 0.000); excessive workload (X^2 = 7.723, df = 1 and p = 0.004) and lack of clear family support protocols (X^2 = 6.163, df = 1 and p = 0.014) were the leading work-related challenges identified. Nurses' inadequate training on ICU based family support (X^2 = 6.708, df = 1 and p = 0.000) and their poor awareness of family support protocols (X^2 = 8.161, df = 1 and p = 0.000) were the leading capacity related challenges identified. Persistent worries and fears over patient's poor/uncertain prognosis (X^2 = 7.118, df = 1 and p = 0.000) and mental distress over possible loss of patients(X^2 = 6.702, df = 1 and p = 0.005) were the leading psychosocial challenges identified.

Conclusion: Intensive care nurses at KNH experienced a wide range of work-related, capacity related and psychosocial challenges in providing support to families of critically ill patients in the hospital.

Recommendations: The management of KNH should also ensure that intensive care nurses working in the hospital are adequately trained, supported and facilitated in their role of offering support to families of ICU patients admitted in the hospital.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This is the introductory chapter of the study and includes: the study's background, statement of the problem, justification of the study, research questions and objectives of the study, research hypothesis as well as the significance of the study.

1.2 Background to the Study

Intensive care is designed to offer quick intervention, keen monitoring closely as well as continuous care for persons diagnosed with severe acute dysfunction of vital organ(s). As such, its primary object is supporting and maintaining the continuous functioning of core bodily functions with the intent of preventing greater physiological deteriorationas well as preventing or lowering mortality and morbidity in critically ill patients (Kiwanuka, Shayan & Tolulope, 2019). Critical care is therefore deemed to be most beneficial for patients with single or multiple organ systems failure, either acute or chronic, and who often required advanced life support to reverse the failing organ(s) systems (Al-Mutair et al., 2018). Being able to support, and if need be replace on a temporary basis, failing organ systems' functions especially the respiratory system, cardiovascular system, central nervous system and renal system, through basic and advanced organ system monitoring and support is what underscores intensive care medicine (Alsharari, 2019).

Critical care denotes the kind of care that is earmarked for patients with severe or critical illness which has the potential to be treated despite it being life threatening (Kynoch & Ramis, 2021). Critical illness or injury, as defined by the World Health Organization (WHO), refers to a health condition or event leading to significant impairment of a person's major organ systems and which if not urgently managed puts the person's life at risk (WHO, 2021). Consequently, intensive care is an inter-professional as well as a multi-discipline specialty whose primary object is to offer desired care among patients with critical illness and particularly those with single or multiple organ failure which is life threatening (Diaz et al., 2019). Some of the basis for intensive care consideration include an obstructed airway, all

respiratory arrests, all cardiac arrests, abnormally high (≥40 breaths/min) or low (≤8 breaths/min) rates of breathing, those requiring inspired oxygen concentration of ≥50%, abnormal heart rates precisely those above 140 or those below 40 beats/min, <90 mmHg systolic blood pressure, unexpected rapid unconsciousness, uncontrolled seizures, increasing levels of CO_2 in the blood or generally patients presenting with any symptoms of acute illness (Chhetri & Thulung, 2018; Ludmir & Netzer, 2019).

Some of the variables looked at in evaluation of whether a patient is suitable for ICU admission are diagnosis, how severely ill is the patient, the patient's functional status and age, whether the patient has other pre-existing illness(es), physiological reserve, recovery projections, whether desired treatment is available, how the patient has responded to treatment this far, whether the patient has had recent cardiopulmonary arrest, expected quality of life following treatment and the wish of the patient (Harlan et al., 2020). However, as is with all other forms of care, the concept of potential gain should form the basis of deciding on whether a patient is admissible to ICU. The rule of thumb being those without any hope of getting any better after treatment and those too well to benefit do not qualify for ICU based care (Alsharari, 2019). Early referral to the intensive care is particularly important as any delay puts at risk a patient's chances of full recovery. Indeed, referring a severely ill patient for intensive care on a timely basis is associated with better survival chances, reduced risk of organ failure, reduced ICU and hospital stay, as well as reduced healthcare related costs (Mahran, Taher& Saleh, 2017).

Within the intensive care setting, critical care nurses, also referred to as intensive care nurses, perform different roles aimed at restoring, rehabilitating, curing, maintaining, or palliating patients admitted in critical care settings across their lifespan (Kohi, Obogo & Mselle, 2016). As such, their leading role is to support other critical care health professionals in administering care and support toICU admitted patients (Elay et al., 2020). Normally, the medical conditions of ICU patients are highly dynamic, extremely complex, intense and demanding and thus ICU nurses need to possess specialized knowledge and expertise particularly on how the human body interacts

with various treatments (McAndrew, Mark & Butler, 2020). Critical care nurses make decisions and implement actions necessary to achieve care that is safe, appropriate and ethical for the patient's age and which is in line with the patient's and his/her family's values and needs (Burns et al., 2018).The scope of practice for ICU nurses therefore requires application of evidence-based critical care practice in delivery of care to patients admitted in intensive care settings. Importantly too, critical care nurses should be committed to maintaining a respectful, healing and caring environment, and should dedicate to respond to the unique needs of the patients and their families (Jafarpoor, Vasli & Manoochehri, 2020).

Critical care nurses' role in providing support to families of patients in ICU remains an area of great interest in critical care nursing (Ludmir & Netzer, 2019). In the critical/intensive care environment, owing to the diminished health status of the patient, the critical care team heavily relies on members of the patient's family to speak on the patient's behalf including making crucial decisions such as consenting for much needed and often complex care procedures and/or approving an end to efforts to save the patient's life (Imanipour et al., 2019). Given that severe/acute illness often happens abruptly, members of critically ill patients' families often experience feelings of helplessness, distress and vulnerability as they are often unclear on how things will turn out for their loved one (Burns et al., 2018). Hence, addressing the ICU patients' families support needs forms an important responsibility of critical care nurses as part of their efforts to ease the pain and suffering of the patients' family (Naef et al., 2021).

Evidence from critical care nursing research indicates that ICU-admitted patients' family members have several needs that relate to their experience in the ICU setting. These needs have been identified as including the needs for (re)assurance, support, information, closeness (or proximity) and comfort (Elay et al., 2020). Unfortunately, despite these needs being commonly known to health care personnel working in intensive care settings including the intensive care nurses, they often are unaddressed or not met, as they tend to mainly focus on the immediate care needs of the severely ill patients (Jafarpoor et al., 2020; Kynoch & Ramis, 2021). It seems that critical care

nurses find it a challenge to effectively balance the treatment needs of the ICU patients and these patients' family needs (Kiwanuka et al., 2019). This notwithstanding, the challenges the critical care nurses encounter in providing support to families of the patients they care were unclear locally. In view of this, the current study explored the challenges experienced by intensive care nurses in providing support to families of critically ill patients in the local context.

1.3 Statement of the Problem

When a member of a family is admitted to the intensive care unit, it significantly impacts the family psychologically, emotionally and at times financially. This manifests through psychological stress, mental distress, being anxious, uncertainty and worry/fear that the loved one could die (Burns et al., 2018). Many critical care nurses often do not accord much emphasis to the ICU patients' families' needs as they only perceive family members as mere extensions of the patient. The perception is however turning increasingly untenable as critical care nursing profession moves towards more holistic care, where the role of the family on patient care is greatly emphasized (Ludmir & Netzer, 2019). Accordingly, providing support to the ICU patients' families and meeting their needs is now an integral part of ICU patients' care. This is achievable through greater collaboration, engagement and supporting of families while caring for the ICU patient (Naef et al., 2021).

Offering support to ICU patients' families therefore constitutes acritical obligation of critical care nurses. However, despite the fact that critical care nurses serve ICU patients and the patients' families, their main attention/focus is usually on the patients often complex care demands essential for the patients' potential recovery and survival (Kynoch & Ramis, 2021). This in turn implies that an important component of the patient's care which is providing support and meeting the needs of the patient's family remains largely ignored or unattended (McAndrew et al., 2020).

Despite provision of support to critical care patients' families by healthcare providers being identified as a leading area of concern in surgical care settings as espoused in studies by Jordan (2018), Alsharari (2019) and Kynoch and Ramis (2021), the

challenges faced by the critical care nurses in this respect were yet to be thoroughly documented particularly in the local context. A review of annual ICU reports of KNH indicated that the hospital had a protocol on support of families of ICU patients that should be applied by the critical care team to guide their interactions with families of ICU-admitted patients in the hospital. The hospital also offered an opportunity for families of ICU patients to offer their feedback regarding their ICU experience through suggestion boxes located in waiting areas within the facility. Despite these efforts, feedback from the ICU patients' family members denoted gaps with respect to nature and level of support that they receive from the critical care nurses (KNH ICU Reports, 2021).

In the local context, Maina, Kimani and Omuga (2018) explored how families of severely ill patients at KNH got engaged in the patients' care, with study participants agreeing with unanimity that family members should take part in caring for the ICU-admitted patients via counseling and information-sharing. Mutinda (2012) examined ethical dilemmas experienced by nurses in KNH's CCUs and reported that the level of disclosure about a patient's deteriorating health status to family members remained an area of concern. Ngui (2006) assessed the needs of families of ICU patients at KNH and reported that families of ICU patients had need for support though there were differences in perception as to extent to which this need was met between ICU nurses and the patients' families. However, these studies did not explore challenges experienced by intensive care nurses in providing support to families of critically ill patients in the hospital, a research gap this study sought to address.

1.4 Justification of the Study

This study aimed to contribute to efforts of enhancing provision of support to families of critically ill patients at Kenyatta National Hospital. This was by investigating the challenges experienced by intensive care nurses in providing support to families of patients with critical illness at Kenyatta National Hospital. This was in recognition of the fact that provision of support to families of ICU patients constituted an integral part of family centred care approach in critical care settings (Jordan, 2018). It was also in appreciation that members of family constituted a crucial link in the care of

critically ill patients, and meeting their support needs impacted patient care outcomes (Alsharari, 2019).

It was also in cognizance of the fact that family members often rated their ICU experience and perceived quality of care their loved one received based on the level of support accorded to them as well as nature of interactions they had with critical care staff while they visited the unit (Elay et al., 2020). It was also in recognition of the view that family support in terms of timely, clear, and regular updates about a patient's condition helped alleviate part of the family's anxiety, distress and fear (McConnell & Moroney, 2015). In essence, health care providers' (HCPs) commitment to meeting the support needs of families of ICU patients was an essential part of family-centered care in ICU settings.

Exploring the challenges experienced by intensive care nurses in providing support to families of critically ill patients provided an opportunity to identify areas in critical care delivery in KNH where improvements could be made in order to foster a family-centered care approach for better patient care outcomes. This study hopes that its findings will inform development of necessary policies and interventions for greater and effective support to families of ICU-admitted patients in KNH.

1.5 Research Questions

This research study answered these study questions;

1. What are the work-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital?

2. What are the capacity-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital?

3. What are the psychosocial challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital?

1.6 Objectives of the Study

1.6.1 Broad Objective

To establish challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital.

1.6.2 Specific Objectives

The study's specific objectives included;

1. To identify the work-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital.

2. To establish the capacity-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital.

3. To establish the psychosocial challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital.

1.7 Significance of the Study

This study's results could inform or influence policy review by shedding light on challenges encountered by critical care nurses in offering support to families of ICU patients. This may in turn lead to greater incorporation of family support into the country's critical care nursing protocols.

The findings from this study may also inform nursing practice in care of KNH's ICU-admitted patients with increased emphasis on meeting the support needs of families of ICU patients.

The findings from this study may also inform nursing education with insights generated from this study acting as a basis for formulation of training tools to help ICU nurses better meet the support needs of the ICU patients' families.

Last but not least, the findings from this study may inform research, as this study adds to existing literature on family support for ICU-admitted patients, hence offers a reference point and a basis to other academicians and scholars for further research on the study subject.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter offers insight on existing literature based on the study objectives. The chapter begins with an overview of family support needs for critically ill patients. The chapter also contains a review of empirical literature on work related, capacity related and psychosocial challenges experienced by health care providers in providing support to families of critically ill patients. This chapter also provides a summary of gaps identified in the reviewed literature, and then ends with a description of the theory that guided the study as well as the study's conceptual framework.

2.2 Family Support Needs for Critically Ill Patients

Regardless of the fact that an increasing proportion of care seekers are seeking to be actively involved in decisions regarding their own healthcare, this is usually not the case with patients in critical conditions (Brown et al., 2015). Owing to their acute medical condition, ICU-admitted patients are often not in a position to actively participate in discussions relating to their own care planning and decision-making (Mitchell et al., 2016). Consequently, within critical care settings, severely ill patients' members of family play a crucial role in substitute decision-making, patient support and follow-up care. Families of ICU patients thus constitute a very significant part/element of the care of critically ill patients (Jordan, 2018).

Families of patients admitted in ICUs have a broad range of support needs. The support needs, as identified in the "Critical Care Family Needs Inventory (CCFNI)" formulated by Nancy Molter and Jane Leskein 1983 include the needs for information - the necessity of members of the family to be regularly, accurately and honestly appraised of the patient's health status and progress in treatment; proximity -the necessity of family members to remain in close contact with the patient; assurance - being assured that the patient is being offered the best care possible; support - being offered help to resolve any financial, emotional and family related problems arising from the admission of the loved one in the ICU; and comfort - having a readily available person that the family members can talk to at any point regarding any

concerns that they may have(Alsharari, 2019; Ocak & Avsarogullari, 2019; Elay et al., 2020).It is critical that these support needs are correctly identified and met, as this strengthens family members' interactions and support for the patient; it enhances their satisfaction with care offered as well as helps enhance trust and confidence in the family-care team relations (Padilla-Fortunatti et al., 2018).

In ICU setting, intensive care nurses often have to make decisions that are simultaneously swift and correct. In this volatile and complex operating environment, the needs of the patients' relatives can easily be neglected (McConnell &Moroney, 2015). Intensive care nurses are best positioned to offer support to families of critically ill patients as they have the most frequent encounters with ICU patients' families. As such their focus should not be restricted to caring for the patient only, but should also include provision of appropriate support to these patients' families with a view of meeting their information, proximity, assurance and comfort needs (Burns et al., 2018). However, greater synergy and a more reassuring work environment are required so as to create a shared culture that emphasizes on meeting the various support needs of families of patients admitted in the intensive care settings (Kynoch & Ramis, 2021).

Determining the challenges experienced by intensive care nurses in providing support to families of critically ill patients is an important step towards improving the quality of care in intensive care settings.

2.3 Work-Related Challenges experienced by Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

In a study undertaken in Saudi Arabia, the support needs of families of patients under admission in local ICU units were investigated. Critical care nurses serving in four local health facilities from north of the country constituted the study respondents. Data for the study was obtained via questionnaires. Descriptive statistics were used in analysis of the data with analysis of variance and t-test also applied. From the findings, the support needs identified as being most critical to families of ICU-admitted patients included being adequately appraised of the patient's health status

both accurately and regularly; an assurance that the patient was being accorded the best possible care; being allowed to remain close to the patient during the ICU stay and being listened to and counseled throughout the ICU experience. Open and effective communication and close collaboration with the patients' families were positive enablers while excessive workload, understaffing, time and space restrictions and sub-optimal team culture impeded family support in the ICU settings. It was concluded that provision of family support within intensive care settings in the country required greater emphasis (Alsharari, 2019).

In Nepal, Chhetri and Thulung (2018) explored the support needs of members of families of ICU-admitted patients in a local teaching hospital. This was a cross-sectional descriptive study with 65 critical care nurses drawn from a local medical teaching hospital as respondents. The CCFNI was the research tool and data were evaluated descriptively and via inferential statistics. From the findings, the support needs ranked in order of significance as perceived by the nurses were needs for assurance, for information, for comfort, for proximity and for support. Adequate institutional support for the work of critical care nurses and a positive work environment facilitated effective delivery of family support while restrictive ICU policies and structures impeded the nurses' provision of family support.

An Egyptian study explored the challenges that intensive care nurses faced in their work. The study adopted a descriptive, exploratory, qualitative research design. The study site was ICUs in Assiut University Hospital. The study participants were 45 nurses who worked in the hospital's ICUs. A structured questionnaire formed the data gathering tool. From the results, the nurses unanimously agreed that provision of support to families of ICU-admitted patients was paramount. However, they cited increased workloads, high intensity of ICU care demands, disharmony among the critical care team and failing equipments as part of the work-related challenges that impeded their provision of support to the ICU patients' family members (Mahran, Taher & Saleh, 2017).

In US, Jacob et al. (2016) undertook a study whose objective was to assess support needs of members of family of patients admitted in an ICU. The study adopted a

descriptive exploratory research design with the study participants being 45 family members. They were interviewed using questionnaires and data obtained analyzed descriptively. Being offered accurate and timely information about a patient's condition and a guarantee that the patient was receiving the best possible care were cited as the two most important support needs of families of ICU patients. Delivering on these support needs was however impeded by high intensity of ICU work demands, under-staffing and communication lapses while unrestricted visitation policy and positive HCPs' attitudes helped enhance family support in the ICU.

A study performed in Spain sought to elaborate on support needs of families of ICU patients as perceived by ICU nurses and the patients' relatives. The study was descriptive and prospective in nature and was undertaken at a public teaching hospital ICU. Study respondents were relatives of admitted ICU patients and nurses working in the ICU. Data was collected using a self-administered questionnaire and were analyzed using descriptive statistics. From the results, there was consensus among the ICU nurses and the patients' relatives that regular, accurate and honest updates regarding the patient's response to treatment was the important support need for the ICU patients' families. However, the nurses' provision of support to the families of the ICU patients was impeded by a restrictive visitation policy and their poor communication skills (Sánchez-Vallejo et al., 2016).

An empirical study undertaken in Malaysia explored the support needs of families whose loved ones were receiving treatment in an intensive care unit. The study site was an adult general ICU in a local public hospital. A total of a hundred intensive care nurses were enrolled. Data were gathered-using self-administered questionnaires and were evaluated descriptively using SPSS v. 20. From the findings, the nurses perceived informational support, support to maintain closeness with the patient and psychosocial support as being the most critical. The study also showed that good communication skills on the part of nurses facilitated their provision of support to families of ICU patients while understaffing, tight ICU schedules, poor institutional facilitation and communication-breakdown among the care teams adversely affected their ability to offer required family support (Hashim & Hussin, 2012).

2.4 Capacity-Related Challenges Experienced by Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

In Turkey, a descriptive investigation explored ICU nurses' perceptions of ICU patients' relatives needs. The study was conducted among 54 ICU nurses working in one of the local university hospital. A self-formulated questionnaire and local version of CCFNI were applied in data collection. Analyzing of the data was via descriptive along with t-test. From the findings, the capacity related factors found to inhibit the nurses' provision of family support included the nurses' inadequate training on ICU based family centred care; lack of protocols on management of ICU patients' family needs and inability to effectively balance patient care with family support needs. The study recommended that family centred care education to be embodied in the nurses' work-based training (Büyükçoban et al., 2021).

An analytical cross section study performed in Palestine examined the support needs of families whose loved ones were ICU- admitted. The study site was ICUs of 4 local hospitals. 240 respondents were interviewed using the CCFNI questionnaire. Descriptive and inferential analyses were performed. From the findings, the most crucial support needs for the families of the ICU patients related to the assurance domain followed by informational, proximity and support domains respectively. Though most of the nurses acknowledged that family support was integral to patient care in the ICU, their family support practices were minimal due to inexistence of guidelines on ICU based family support and their inadequate training on ICU based family support (Salameh et al., 2020).

Across-sectional descriptive study evaluated the practice of family-based nursing in adult ICUs along with associated challenges in its delivery from the perspective of 150 selected critical care nurses. The Family Nursing Practice Scale (FNPS) and the Family Importance in Care-Nurses' Attitudes (FINC-NA) were the study tools. Both descriptive statistics and Pearson's correlation were utilized in analysis. The findings revealed that though most of the ICU nurses positively perceived family support in ICU patient care, their family support practices were sub-optimal. This was attributed to their lack of training on ICU based family support. Consequently, the study called

for increased nurses training on family support as a key component of ICU based care (Imanipour & Kiwanuka, 2020).

A cross-sectional prospective investigation performed in Turkey explored severely ill patients' relatives' needs in a local hospital's emergency department (ED). The study was conducted among relatives of severely ill patients and ED nurses. A local version of CCFNI was applied in data collection. Analyzing of the data was via descriptive statistics. From the findings being informed of the patient's health status on a regular basis and assurance that the patient was being accorded the best possible care were identified as the most significant support needs of these patients' families. However, nurses' inadequate training on ICU based family support and lack of protocols on management of ICU patients' family support needs were found to impede nurses' provision of support to these patients' families (Ocak & Avsarogullari, 2019).

In Chile, an assessment of the support needs of family members of patients with critical illness was undertaken. The study site was a university hospital in Santiago. Study participants were critically ill patients' family members and ICU nurses at the hospital. The CCFNI tool was applied in data collection. ANOVA, t test and descriptive measures were applied in analyzing of the data. Results showed that there was unanimity among the patients' relatives and the ICU nurses that support needs related to patient safety and information were the most important. While the nurses acknowledged the significance of family support in ICU care, their provision of family support was impeded by huge patient care needs and their poor training on ICU based family support (Padilla-Fortunatti et al., 2018).

A study undertaken in Malawi examined challenges faced by intensive care nurses in offering support to families of patients with critical illness. The study adopted a descriptive, exploratory, qualitative research design. Ten randomly selected ICU nurses participated in the study. Though majority of the ICU nurses positively perceived family support in the ICU setting, several factors impeded their effective provision of support to the ICU patients' families. These included inadequate training on provision of support to families of ICU patients; non-existence of documented guidelines regarding family support in ICU context; ill preparation on how to

communicate with the patients' family members and being unable to effectively handle families and patients diverse exigencies (Gondwe, Bultemeier & Bhengu, 2011).

2.5 Psychosocial Challenges Experienced by Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

Kynoch and Ramis (2021) undertook a research study to identify challenges in meeting support needs of families of patients admitted in ICUs. Data was collected using focus group discussions (FGDs) conducted among 75 critical care nurses. The data was probed via thematic content analysis. Findings revealed that though most of the nurses were keen and positive about offering support to members of families of ICU-admitted patients, their family support practices were inadequate. Psychosocial challenges among the nurses which included feelings of depression, anxiety and mental distress were found to be prevalent. These were attributed to the nature and demands of their work and poor patient prognosis despite immense efforts.

An empirical study carried out in Turkey explored ICU nurses' perceptions of support needs of families whose loved ones were receiving treatment in intensive care settings. A cross sectional descriptive research design was utilized. It was done among 68 intensive care nurses who worked in a general ICU for adults in one of the local teaching and referral hospital. Gathering of data was through questionnaires and was descriptively explored using SPSS v. 20. Results showed that the nurses' family support practices were below par. This was associated with psychosocial challenges they experienced in their work which included depression, distress and anxiety, attributable mainly to exhaustion due to excessive workload, high intensity of care demands and poor patient treatment outcomes (Elay et al., 2020).

Abdel-Aziz, Ahmed and Younis (2017) investigated the needs of families whose patients were admitted in ICU as perceived by the patients' family members and ICU nurses. It was performed at Tanta University's Emergency Hospital ICU in Egypt. Respondents included ICU nurses and members of family of admitted patients. Findings showed that there was agreement among the study participants that

informational, assurance and proximity support needs were the most important to ICU patients' families. While the nurses were unanimous that family support was critical to ICU patients' care processes, their family support practices were largely sub-optimal and this was partly blamed on psychosocial challenges that included depression, mental distress and anxiety due to a tough work environment.

A cross-sectional study carried out in South Africa explored the needs of families during a loved one's illness which was critical. The study's methodological approach was the theory by Strauss and Corbin. Data was collected via interviews among intensive care nurses and physicians and close relatives of ICU-admitted patients. The support needs of the ICU patients' families identified as critical related to dissemination of information, reassurance, being consoled, resource mobilization and emotional support. However, the HCPs' provision of family support was found to be impeded by psychosocial challenges that included mental distress, anxiety, fear for the worst and feeling depressed which were attributed to complexities of their working environment (De Beer & Brysiewicz, 2016).

A study performed in Israel evaluated the support needs of families of ICU-admitted patients and challenges experienced by ICU nurses in meeting these needs. From the findings, the support needs of family members of ICU patients deemed as most critical related to being adequately briefed about the patient's condition and response to treatment, being assured that the best available care was being extended to the patient and family members being allowed to remain close to their loved one even in the severe illness state. On aggregate, it was established that the nurses' family support practices were sub-optimal with psychosocial challenges including depression, mental distress, anxiety and uncertainty impeding nurses' provision of the much needed support to these patients' families (Khalaila, 2014).

An exploratory study, done in Rwanda, explored the needs of families of patients admitted in intensive care unit. It was carried out in a Kigali hospital ICU. The study adopted quantitative data approaches. A sample of 40 respondents was recruited. Data was collected using the CCFNI questionnaire and was analyzed descriptively. According to the findings, support need on assurance that the patient was receiving

best possible care was the most important while other support needs included informational, closeness, comfort and support. These support needs were however barely met with psychosocial challenges including anxiety and stress impeding nurses' ability to effectively offer family support (Munyiginya & Brysiewicz, 2014).

2.6 Gaps in Literature Review

From the reviewed empirical literature, it was apparent that, within critical care settings, severely ill patients' families had a wide range of needs and that intensive care nurses had an important role of meeting some of these needs such as keeping the family members well informed of the patient's health status on an ongoing basis, assuring the patients' families that the patient was being accorded the best possible care and allowing the family members to remain close to the patient despite the patient's acute health condition.

The reviewed empirical studies however demonstrated that critical care nurses, in their work, experienced various work-related challenges such as excessive workload, understaffing, time and space restrictions, communication breakdown and restrictive ICU policies and structures. They also experienced capacity-related challenges such as inadequate training on ICU based family support, lack of protocols to guide nurses' provision of family support, nurses' poor perception of persistent family presence in the ICU environ and inability to effectively balance patient care demands with family support needs. They also experienced psychosocial challenges such as depression, mental distress, anxiety and uncertainty. These challenges impeded the nurses' practice of family support within the intensive care setting.

Further, out of the 17 studies reviewed, 4 were from the developed countries in Europe and North America while 10 were from the developing countries in Asia, North Africa and Middle East. Only three were from the Sub-Saharan region and none from Kenya. This showed that most of the reviewed empirical studies evaluated in the literature were undertaken in other nations whose health care settings and systems differed with that of Kenya. It was therefore evident from the empirical literature review that there was paucity of empirical research on challenges

experienced by intensive care nurses in providing support to families of critically ill patients in the local context, hence the need for this study. In consequence, the current study reveals results on the challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital.

2.7 Theoretical Framework

This study was guided by the theory of nurse-promoted engagement with families in the intensive care unit (ICU). This theory was proposed by McAndrew, Schiffman and Leske in 2020 with the view of describing how various diverse variables either impede or facilitate critical care nurses' attempts of families involvement in ICU settings. The theory offers an explanation of how organization, families, critical care personnel along with ICU context factors dynamically interact to affect the manner in which family nursing care is administered within the ICU (McAndrew, Schiffman & Leske, 2020). This theory is premised on the argument or appreciation that family engagement, also referred to as family-centered care, is integral in developing a fulfilling collaboration between ICU-nurses and their clients' families especially in light of the fact that ICU patients' families' ICU experience is shaped by the level of support accorded by the nurses (Naef et al., 2021). The theory asserts that relatives of ICU patients feel valued and acknowledged when they are positively engaged in the care of their loved one (Büyükçoban et al., 2021). This theory thus offers an evolving blueprint for strengthening FCC in intensive care settings (McAndrew & Hardin, 2020).

This theory has four major propositions. Its first proposition postulates that engaging families in the care of patient does influence results for both the patients and their families. At the core of the theory is the appreciation of the significance of family involvement in patient's treatment or care. This proposition holds that engaging patients' families within the critical care setting is paramount to the ICU patients' wellbeing and care outcome (McAndrew et al., 2020). The second proposition of the theory avers that participation of families in patient care that is nurse-advanced is a means of creating nurse-family relations anchored on the nurses' appreciation of the important role of family in patient care. This proposition advances the view that

nurses have an important role to play in advancing FCC and are in a good position to positively influence and aid other caregivers to embrace ICU based family engagement (McAndrew et al., 2020).

The theory's third proposition identifies the factors that facilitate nurses in promoting families' involvement in critical care settings. These are: (a) responsiveness of an entity- a work environment in support of families' participation in care allows nurses to offer support to the patients' families much more appropriately; (b) unit support- critical care settings' care procedures and structures constitute fundamental predictors of nurses' ability to offer desired support for the families. This requires adequate staffing, clear leadership, genuine partnerships, right information exchanges, making decisions effectively and acknowledging each party; (c) ICU nursing culture- nurses' tendency to actively engage families in patient care depends on the level of integration of family engagement into ICU nursing culture. ICU nursing culture may support FCC through offering the nurses the chance to horn their skills and expertise in delivering family care by enhancing their moral resilience, and (d) family adaptation – strong bond between the patient and his/her family is crucial in helping the family effectively adapt and closely collaborate with the care team for positive patient care outcomes (McAndrew et al., 2020).

The theory's fourth proposition provides insights on factors that impede FCC and engaging of families in critical care settings. These are: disruptors related to system barriers which results from unsuitable work environments and their unresponsiveness to the needs of nurses and patients' families in the ICU. Disruptors relating to ethical conflicts which emanate from a nursing culture in ICU that is undesirable and unit leadership that's inadequately engaged in family care; disruptors relating to family distress attributable to inadequate support of patients' families by the nurses and families' vulnerability; as well as disruptors relating to family exclusion which emanate from critical care settings' and institutional policies along with conduct of nurses that undermines involvement of families in patient care. These barriers and their adverse impact could be addressed through effective application of the third proposition's identified facilitators (McAndrew et al., 2020).

This theory thus espouses the view that healthcare providers in intensive care settings should actively partner with patients' families in advancing patient care (Naef et al., 2021). The theory heralds a paradigm shift from the ancient focus on the disease only with care givers having the all the say in patient care to one where patients with their families have an active role in delivery of care in clinical settings. The theory thus emphasizes adoption of patient as well as family based care in ICUs as a means to improve critically ill patients' experiences and care outcomes (McAndrew et al., 2020). The theory points that future endeavours on enhancing greater participation of families in patient care within critical care settings should lay emphasis on nurse training on FCC, fostering a culture that promotes family engagement practices among all ICU care teams, along with ensuring sufficient facilitation of FCC practice in the ICU through necessary structures, resources, policies and strategies (Thirsk et al., 2021).

This theory applied to the current study for various reasons. First, it offered a workable framework of viewing the various aspects that related to critical care nurses' work that either facilitated or disrupted the process of offering support to families of critically ill patients within the ICU context. Secondly, the theory elaborated on how the various factors/aspects interacted dynamically to either support or curtail nurse's efforts in advancing family support in critical care contexts. Thirdly, the theory offered a basis for institutional and ICU related changes in policy, structure and processes to enhance critical care nurses' role of offering support to families of patients admitted in the intensive care environment. Therefore, this theory offered a viable mechanism for advancement of family support paradigm in patient care in ICU settings.

2.8 Conceptual Framework

The conceptual framework is a diagrammatic representation of the relationship between the study variables (Kothari, 2004). It presents a visual overview of the study's independent and dependent variables (or any other variables) and thus helps to provide a quick glimpse of the study's key variables (Mugenda & Mugenda, 2009). This study's independent variables included work-related challenges, capacity-related

challenges and psychosocial challenges. The dependent variable was intensive care nurses' provision of support to families of critically ill patients; the outcome variable was poor or inadequate family support practices in ICU setting while the intervening variable was hospital policy on family support within the intensive-care setting.

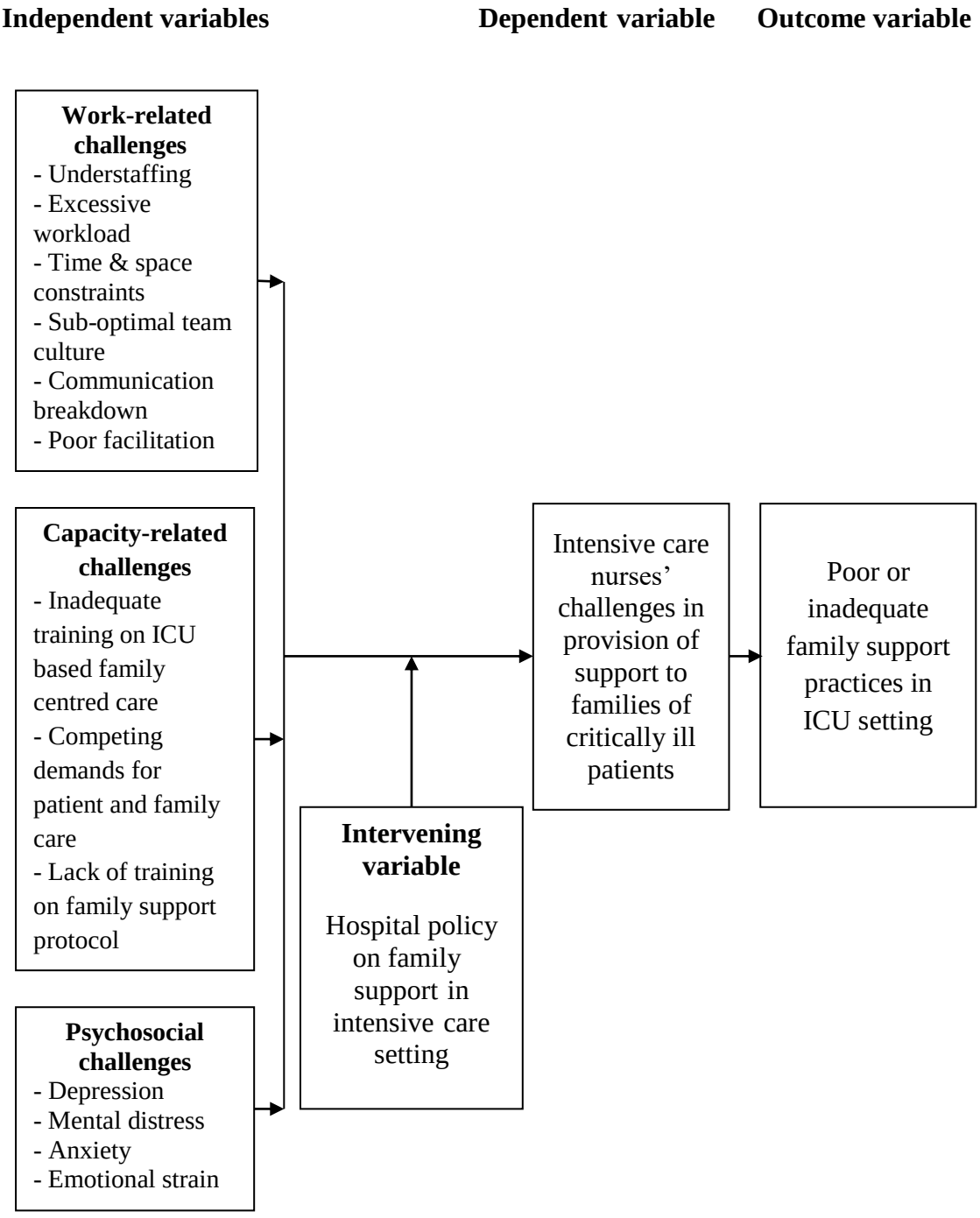

Figure 2.1 Conceptual framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The methodology chapter details the methods and materials used to execute the study. The chapter therefore highlights details on the study's adopted research design, where the study was done, who the study participants were and how the study sample was determined and selected, basis for being included or excluded from the study, study tools and how the data was collected, evaluation of the study tool's validity and reliability, how the data was analyzed, requirements on the study's ethical principles, study limitations and ways or forms in which the study's findings shall be disseminated.

3.2 Study Design

This empirical study adopted a cross sectional descriptive study design to explore the challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital. It was also a sequential mixed-methods study as it utilized data that was qualitative as well as quantitative and the two components were executed sequentially starting with the quantitative data then followed by collection of the qualitative data. As observed by Creswell (2012), an approach of undertaking a research that utilizes mixed methods implies that the study attempts to assess the research problem under review using both quantitative and qualitative data and research techniques. This method was preferred as it allowed the investigator to gather quantitative data on the study subject from ICU nurses at KNH and qualitative data from ICU nurse managers in the hospital hence deriving a better understanding of the subject under consideration (Kothari, 2004).

3.3 Study Area

This research study was undertaken at the Intensive Care Units of Kenyatta National Hospital. Kenyatta National Hospital (KNH) is situated along Hospital road, off Ngong road, and at approximately 4km from the center of the country's capital. It is Kenya's largest public referral health facility. The hospital sits on an area of 45.7

hectares and its current bed capacity is about 2,000. The hospital has 50 wards, 22 out-patient clinics and 24 theatres (16 of which are specialized), and has over 6,000 staff members (KNH, 2021). Kenyatta National Hospital provides a wide range of specialized healthcare services to its clients on an inpatient and outpatient basis. The healthcare services it offers include oncology, diabetic, orthopedics, cardiothoracic surgeries, hemodialysis and renal transplantation, neuro surgery, plastic and reconstructive surgeries, gynecology/obstetrics, general and pediatric surgeries and burns management among others. Further, the hospital also supports research and training for diverse cadres of healthcare personnel in the country as well as aids in planning of Kenya's health care system at the national level, in addition to its core obligation of offering specialized treatment to referral patients (KNH, 2021).

Kenyatta National Hospital has several ICUs. The Main ICU is situated on the first floor and has 21 beds; Neuro and Cardiology ICUs are in the fourth floor and each has 5 beds; Medical ICU is in the 7th and 8th floors and has 6 beds; Pediatric ICU (PICU) has 5 beds and is in the 2nd floor; Neonatal ICU (NICU) is in the first floor and has 9 beds and the Reproductive Health (RH) ICU is in Ground Floor part B and has 5 beds. The total number of ICU nurses in the hospital is 250, 10 of whom are ICU nurse managers. Most of the services offered in the ICUs related to advanced life support (KNH Intensive Care Department, 2021).

3.4 Study Population

The focus of this study was intensive care nurses who attended to patients with critical illness in the Intensive Care Units of Kenyatta National Hospital. KNH's Intensive Care Units records indicated that the hospital had 158 intensive care nurses working in its leading ICUs which included Main ICU, Neuro ICU, Cardiology ICU and Medical ICU. This constituted the study's main respondents. In addition, the study population also included the 10 ICU nurse managers drawn from the hospital's main ICU who acted as key informants for the qualitative part of the study.

3.5 Inclusion and Exclusion Criteria

The study included all intensive care nurses and ICU nurse managers who had worked in KNH's ICUs for a minimum period of one year, who were available at the time of the study and who voluntarily agreed taking part in the study.

The study excluded intensive care nurses and ICU nurse managers on official leave (for whatever reason), and intensive care nurses and ICU nurse managers that declined to agree participating in the study.

3.6 Sample Size and Sampling Technique

The sample size for the intensive care nurses was calculated using Fischer's formula, as outlined by Denscombe (2014), as follows;

$$no = \frac{z^2pq}{e^2}$$

Where;

no = Desired sample size (if the population was greater than 10,000).

Z = Standard normal deviation at the required confidence interval (1.96)

p = Proportion in the target population estimated to have characteristics being measured (0.5)

q= (1-p) = (1-0.5) = 0.5

e = The level of statistical significance (0.05)

Hence $$no = \frac{(1.96)^2 (0.5) (0.5)}{(0.05)^2}$$

$$no = (0.9604/0.0025)$$

$$no = 384$$

The population for the study (N= 158) being less than 10,000 was adjusted for using the Fischer's formula for smaller population sample size calculation as follows;

$n_f = n / [1 + n/N]$

Where n_f = desired sample size when the total population was less than 10,000

n = estimated sample size when the total population (N) was greater or equal to 10,000

N = estimated total population

Therefore, 384 / (1 + [384/158]) = 384/3.43 = 112.

Hence, 112 intensive care nurses at KNH constituted the study sample.

This study applied simple random sampling technique to identify the 112 intensive care nurses who were the study respondents. This offered members of the study population an equal chance of being selected. 'Yes' and 'No' words were written on pieces of paper where Yes was 112 and No was46. All the intensive care nurses meeting the inclusion criteria, who offered their consent and picked 'Yes' were allowed to participate in the study. Simple random sampling was deemed the best sampling technique for this study because it was impossible to test every single member in the population. It also saves time, money and effort while conducting the research (Kothari, 2004).

However, no sampling was done for the ICU nurse managers as they were few. Hence, census method was applied to select the 10 ICU nurse managers at KNH as part of the study sample. This was as argued by Kothari (2004) who averred that the entire population should be utilized as the study sample when it was small.

Hence, the 112 intensive care nurses and the 10 ICU nurse managers at KNH constituted this study's sample. The distribution of the intensive care nurses from the selected ICUs was as shown in Table 3.1;

Table 3.1: Distribution of the intensive care nurses per ICUs

Name of the ICU	Number of ICU nurses	Proportion (%)
Main ICU	90	60.0
Neuro ICU	21	13.3
Cardiology ICU	21	13.3
Medical ICU	26	13.4
Total	**158**	**100.0**

3.7 Data Collection Instruments

In this study, a questionnaireand an interview guidethat were administered by the researcher formed the study tools. The questionnaires were administered among the intensive care nurses working in KNH's ICUs while the interview guide was administered among the ICU nurse managers at KNH.

A questionnaire was chosen as the study tool as it was practical and easily applied to the subject under review as well as for was easy to administer to a large sample and for being affordable (Denscombe, 2014). The questionnaire contained questions that were close-ended and those that were open-ended. The questionnaire had 4 sections as follows: Section A had questions on the respondents' demographic information; Section B had questions on work-related challenges experienced by intensive care nurses in providing support to families of critically ill patients; Section C had questions on capacity-related challenges experienced by intensive care nurses in providing support to families of critically ill patients and Section D had questions on psychosocial challenges experienced by intensive care nurses in providing support to families of critically ill patients. This was as per the objectives of the study.

On its part, the interview guide sought to gather the opinions of the ICU nurse managers regarding the study subject. The interview guide provided the study's qualitative data whose purpose was to complement the study's quantitative data gathered through the questionnaires. It allowed the researcher to probe the study's key informants' responses in a more in-depth way while giving due emphasis to their

experiences and views of the subject under study. This way, it helped enrich the study's quantitative data. In addition to note-taking during the interviews with the ICU nurse managers, the interviews were also tape recorded on an audio tape recorder.

3.8 Data Collection Procedures

Following ethical clearance by the committee on research and ethics of KNH and UoN and necessary permit by relevant authorities in the study site - KNH, the study participants were allowed to respond to the study tool following their briefing on the intent of the research and following individual consenting. The study's quantitative data was gathered through administration of the questionnaire to the intensive care nurses working in KNH's ICUs and this was through allowing them to respond to the queries as contained in the questionnaire with the respondents' responses being noted down by the principal researcher.

The study's qualitative data was collected through administration of the Interview Guide among the ICU nurse managers at KNH. This was through one-on-one interviews of the principal researcher with the ICU nurse managers where the principal researcher was asking them the questions as contained in the Interview Guide and audio recording their responses on a tape recorder with opportunity offered to the ICU nurse managers to offer more in-depth views of the subject under study as guided by the research objectives.

To limit the risk of possible transmission of COVID-19 while performing the data collecting interviews among the study participants; the study participants (that is, the interviewer and the interviewee/respondent had to be masked during the interviews; they sanitized their hands using water and soap before the interview started and after it ended; there was no shaking of hands with the participant(s); they maintained a distance of 1.5 metres while undertaking the interview and masks were offered to any respondent without one on.

Upon completion of the interviews, each filled-in research instrument was scrutinized to ensure it was adequately completed, before being securely kept prior to the data getting analyzed. The researcher took a period of three weeks to gather the study data.

3.9 Pretesting of Study Tools

Pretesting of the study tool was carried out among intensive care nurses at the Moi Teaching and Referral Hospital in Eldoret. The pretest included eleven (11) questionnaires and two (2) interview guides, a proportion of ten percent of the study's sample, corresponding to the proposition that 10% of a study's sample size was sufficient to pretest a study tool as espoused by Mugenda and Mugenda (2003). Upon completion of pretesting, the study tools were modified where applicable and a final form of the study tools was made.

3.10 Validity and Reliability of the Research Instrument

As espoused by Kothari (2010) and Denscombe (2014), validity is a study tool's ability to effectively assess the subject for which it has been created or extent to which collected data reflects the subject being studied. Both face and content validity of the research instrument were evaluated. Face validity involves determining how representative a research instrument is on its face value and whether it appears to be a good research instrument. It thus involved determining whether the research instrument covered the concept it purported to measure. On the other hand, content validity involves matching the questions in the questionnaire to accurately evaluate the attributes of the study variables and concepts as intended to be measured. Validity of this study's research instrument was achieved through expert subject review of its content by the supervising lecturers.

Reliability evaluates whether a study tool is able to yield/generate similar results when it's tested over and over (Nsubuga, 2006). This study applied the Cronbach's Alpha Coefficient to evaluate whether the study tool was reliable. A coefficient of 0.7 and above was acceptable. Where need be, the right amendments to the study tool were effected to improve its reliability.

3.11 Data Analysis

The Statistical Package for Social Sciences (SPSS, version 25) was utilized to analyze the study's quantitative data. Coding of the data and data entry preceded the analysis of the data. Analyzing of the quantitative data was done descriptively using percentages and frequencies. Further, association between study variables, based on the quantitative data, was evaluated by applying the chi-square test statistic at 95% CI. Results from the study were shown in frequency tables.

Qualitative data from the Interview Guide responses given by the ICU nurse managers, collected via audio recording, was translated and transcribed thematically, typed using Microsoft office word and exported for coding and analysis to the NVivo (version 12) package for qualitative data analysis. Analyzing the qualitatively generated study data, emanating from the responses of the ICU nurse managers to the Interview Guide queries, entailed developing relevant themes, based on the research objectives, using content analysis and relating/discussing the findings with the study's literature. Qualitative data findings were presented in verbatim (that is, in narrative form) and helped enrich quantitative outcomes of the study.

3.12 Ethical Considerations

The researcher sought authority to undertake this empirical study from the committee on research and ethics of KNH and UoN. Data collection approval/permit was offered by relevant authorities at KNH. All participants were required to give own written consent before they participated in the study. All information offered by the participants in the study was held in confidence. Further, anonymity was achieved by coding all questionnaires and by not indicating the names or any other details that could personally identify the participant on the questionnaires and ensuring that all responses received were applied for the sole aim of the research study. Participating in the study was on one's own accord with the participants at liberty of terminating their engagement in the study at any stage/point without being penalized. The participants were not coerced or given any rewards to take part in the study. The participants did not suffer any harm for taking part in the study. To limit risk of Covid

19 transmission, the interviewer ensured firm adherence to prevention measures as outlined by relevant health authorities at the time of collecting data. The study tools, once responded to, were securely stored before the data was analysed.

3.13 Quality Assurance

Quality assurance in empirical studies denotes adopted strategies, procedures and policies to provide assurance about the care with which the research study is conducted (Kothari, 2004). It thus refers to the efforts and procedures that a researcher puts in place to ensure the integrity, quality, accuracy and reliability of data collected using adopted methodologies for the particular study (Cooper, S., & Schindler, 2011). Quality assurance in this study was ensured through clear project planning, use of validated data collection tools, full documentation of all study procedures and methods and giving due consideration to appropriate ethical principles.

3.14 Study Limitations

The study was based on results gathered from a single hospital in the country. Thus, the findings may not be generalized to all other hospitals in the country due to differences in sizes, geographical location and institution set up. To counter this limitation, a recommendation for a wider study involving other hospitals locally so that the results may be generalized has been made.

The study utilized a questionnaire as one of its data collections instruments and therefore instances of under- or over-reporting were likely. To counter this limitation, the researcher requested the study respondents to respond to the research tool honestly and assured them that responses given would be handled in confidence and for the sole aim of the research study.

Some cases of incomplete or missing data in the research tools were encountered. To counter this, data cleaning was carried out before the final analysis to ensure completeness of the information availed through questionnaires.

3.15 Study Findings Dissemination Plans

The researcher will share the study's findings documented in form of a thesis report to University of Nairobi's Department of Nursing Sciences, through publishing the study in an appraised journal as well as presenting its key findings in planned forums, workshops and conventions.

CHAPTER FOUR: RESULTS

4.1 Introduction

The study sought to establish the challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital. This chapter presents the study results as set out in the research methodology. The chapter begins with highlighting the response rate. It then provides results on the respondents' demographic characteristics before outlining the findings based on the research objectives.

4.1.1 Response Rate

The study targeted 112 intensive care nurses and the 10 ICU nurse managers at KNH as respondents. From the interviews held, the researcher was able to obtain adequate responses from 95 of the intensive care nurses and the 10 ICU nurse managers translating into a response rate of 84.8% for the intensive care nurses and 100% for the ICU nurse managers. The remaining 17 intensive care nurses were excluded from the final analysis on account of availing incomplete data. This response rate was, however, considered sufficient and representative and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 50% is adequate for analysis and reporting, a rate of 60% is good while a response rate of 70% and over is excellent.

4.2 Demographic Characteristics of the Intensive Care Nurses

The study sought to establish the demographic profile of the intensive care nurses. The demographic attributes considered were gender, age, education level, religion, marital status, duration worked as a critical care nurse and their area of work at KNH.

4.2.1 Gender Distribution of the Intensive Care Nurses

Results on the respondents' gender distribution are as illustrated in Figure 4.1.

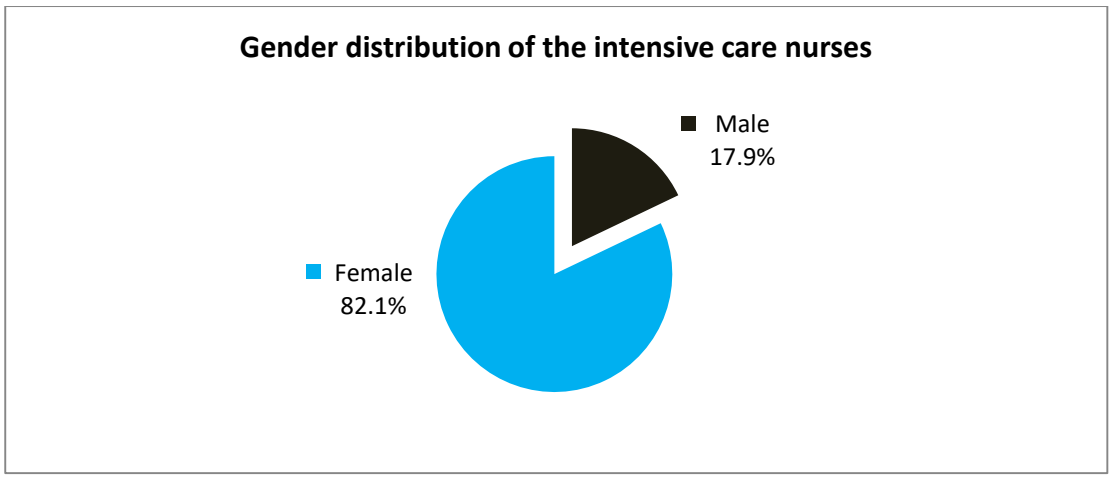

Figure 4.1: Gender distribution of the intensive care nurses

Most (82.1%, n = 78) of the intensive care nurses were female. Hence, more female intensive care nurses took part in the study than their male counterparts.

4.2.2 Age Distribution of the Intensive Care Nurses

Results on the intensive care nurses' age distribution are shown in Figure 4.2.

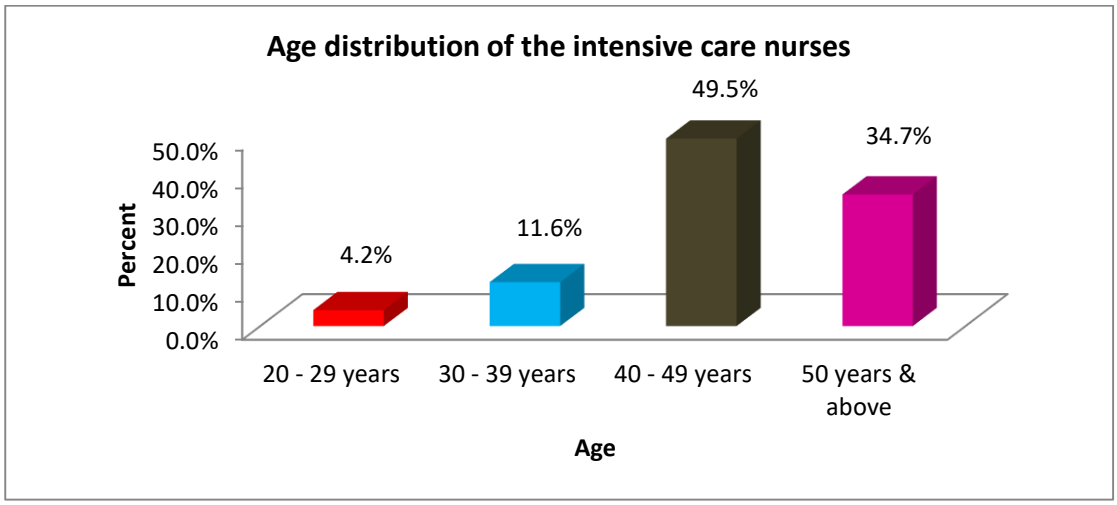

Figure 4.2: Gender distribution of the intensive care nurses

4.2.3 Education Level of the Intensive Care Nurses

Results on the intensive care nurses' education level are highlighted in Figure 4.3.

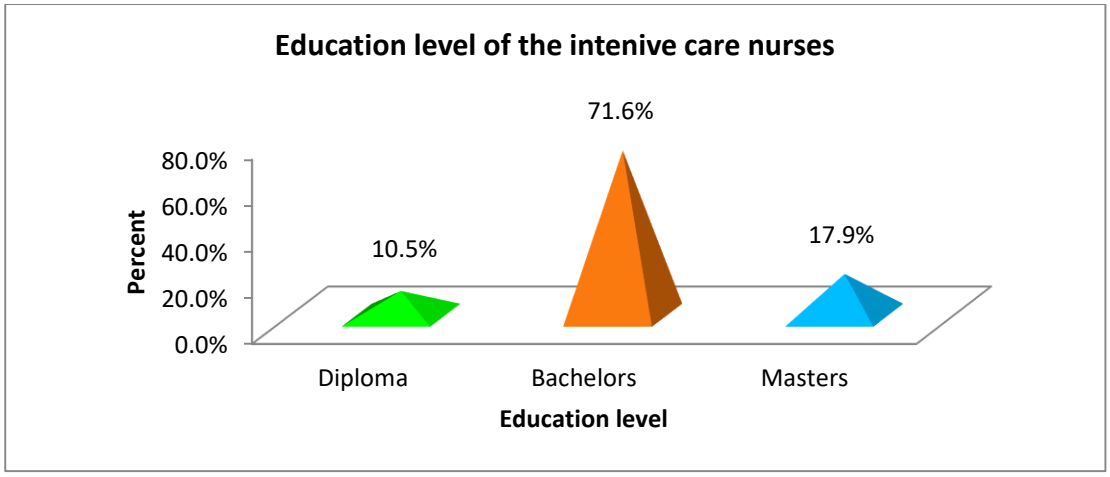

Figure 4.3: Education level of the intensive care nurses

4.2.4 The Intensive Care Nurses' Religion

Figure 4.4 contains findings on religion of the intensive care nurses' religion.

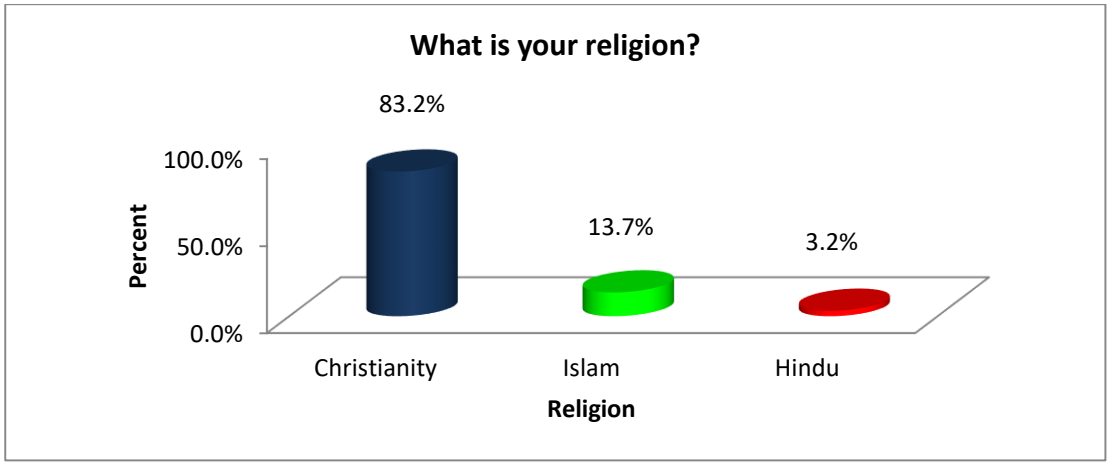

Figure 4.4: The intensive care nurses' religion

4.2.5 Marital Status of the Intensive Care Nurses

Results on the intensive care nurses' marital status are presented in Figure 4.5.

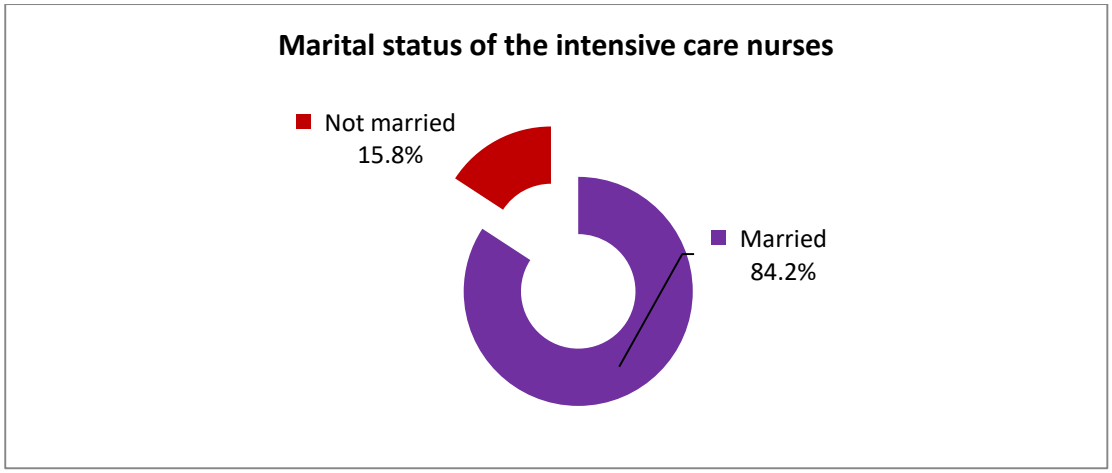

Figure 4.5: Marital status of the intensive care nurses

4.2.6 Duration Worked as a Critical Care Nurse

The intensive care nurses were requested to indicate the duration they had worked as a critical care nurse. Results are outlined in Figure 4.6.

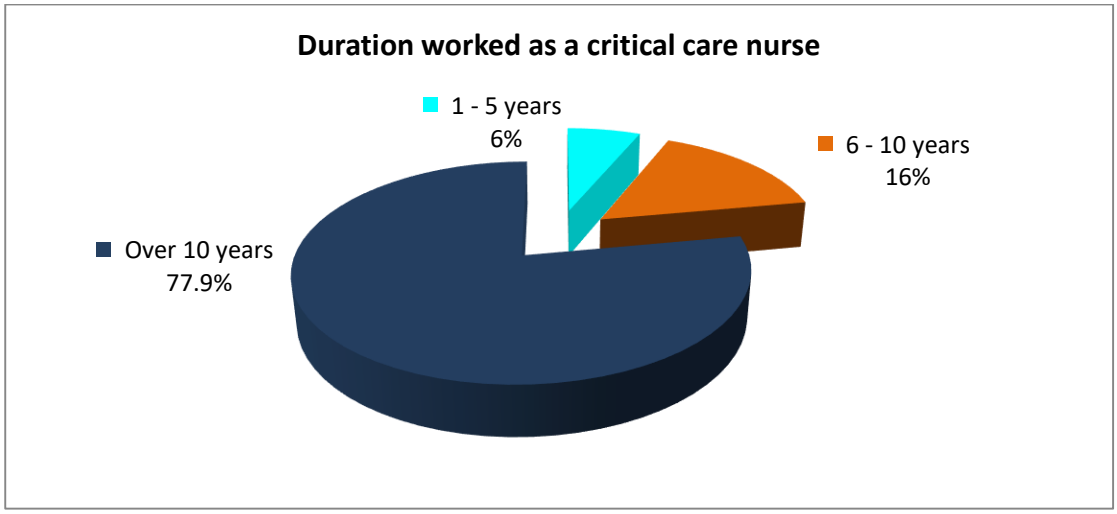

Figure 4.6: Duration worked as a critical care nurse

4.2.7 Area of Work at KNH for the Intensive Care Nurses

The intensive care nurses were requested to indicate the ICU in which they worked at KNH. Results are shown in Figure 4.7.

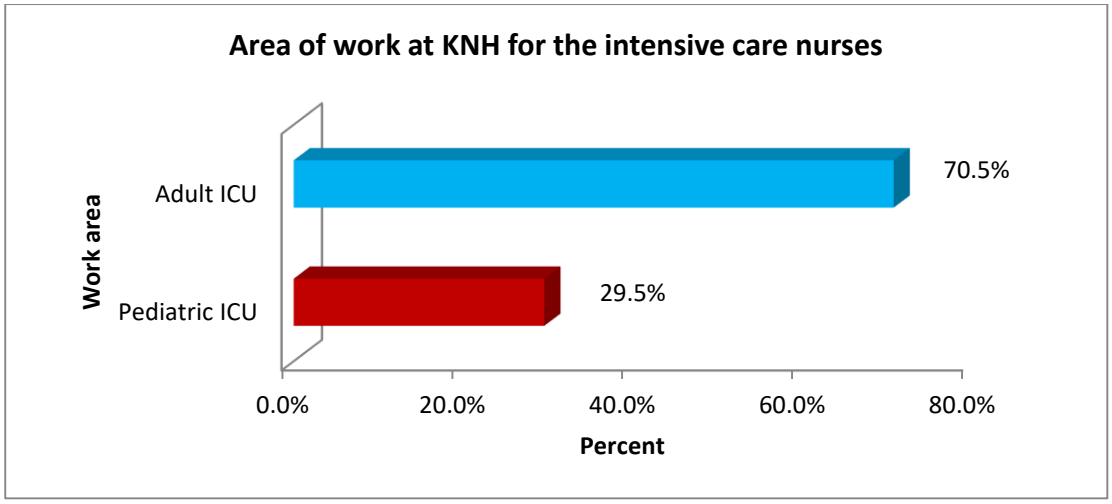

Figure 4.7: Area of work at KNH for the intensive care nurses

4.3 Demographic Characteristics of the ICU Nurse Managers

The study also sought to establish the demographic profile of the ICU nurse managers. The demographic attributes considered included their gender, age, duration worked in KNH and duration served as an ICU nurse manager at KNH. Results are shown in Table 4.1.

Table 4.1: Demographic characteristics of the ICU nurse managers (n=10)

		Frequency	Percent
Gender	Male	0	0.0
	Female	10	100.0
	Total	**10**	**100.0**
Age	40 - 49 years	4	40.0
	50 years & above	6	60.0
	Total	**10**	**100.0**
Duration worked at KNH	10 - 20 years	1	10.0
	Over 20 years	9	90.0
	Total	**10**	**100.0**
Duration served as an ICU nurse manager at KNH	Under 10 years	3	30.0
	Over 10 years	70	70.0
	Total	**10**	**100.0**

The results indicated that the 10 ICU nurse managers were all female and were long serving and experienced medical members at KNH.

4.4 Work-Related Challenges Experienced by Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

The first objective of the study sought to identify the work-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital. Results are as described in the subsequent sub-sections.

4.4.1 Respondents' View Regarding Existence of Work-Related Challenges in Provision of Support to Families of ICU Patients

The respondents were asked whether they would acknowledge that ICU nurses at KNH faced various work-related challenges in provision of support to families of critically ill patients in the hospital. From the findings, 100% of both the intensive care nurses (n = 95) and the ICU nurse managers (n = 10) agreed that ICU nurses at Kenyatta National Hospital did face various work-related challenges in provision of support to families of ICU patients in the hospital.

4.4.2 Work-Related Challenges Experienced by the Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

The intensive care nurses were requested to identify some of the work-related challenges which they experienced in providing support to families of critically ill patients at KNH. Results are as presented in Figure 4.8.

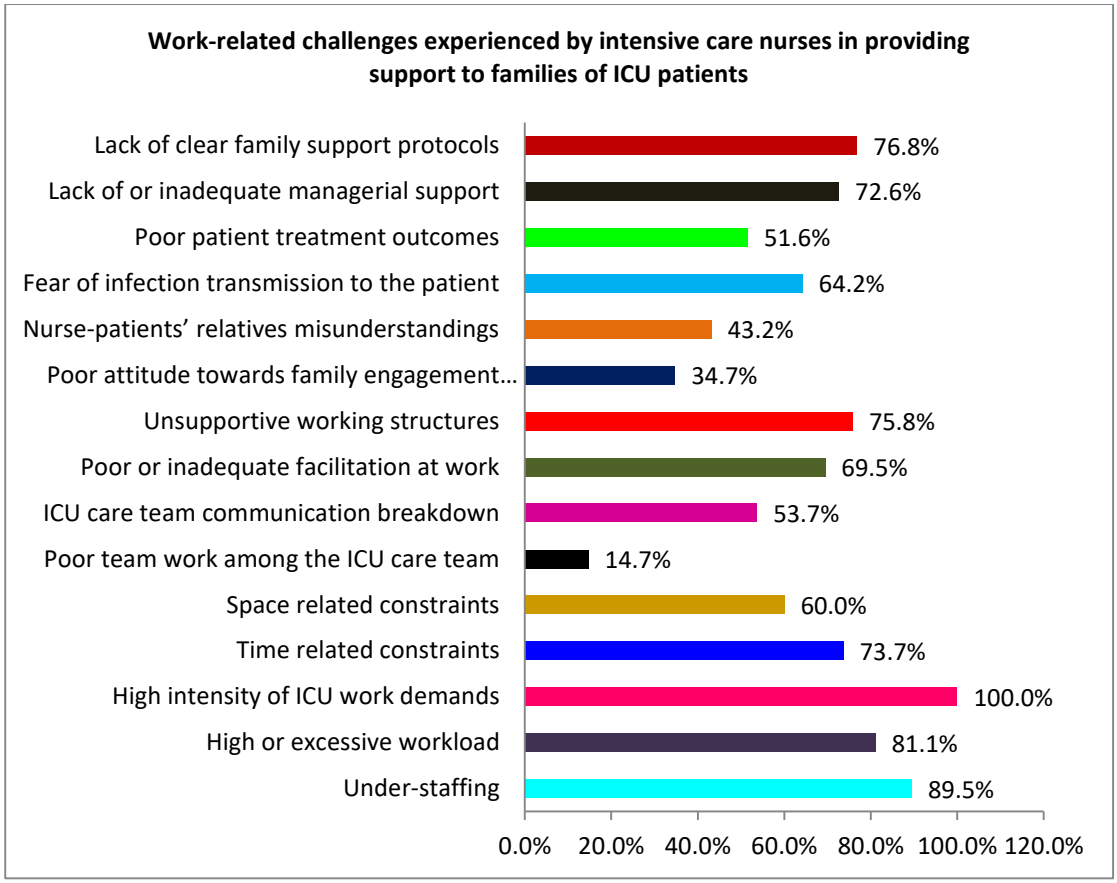

Figure 4.8: Work-related challenges experienced by intensive care nurses in providing support to families of ICU patients (n = 95)

From the findings presented in Figure 4.8, the work-related challenges experienced by the intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital included under-staffing as cited by 89.5% (n = 85) of the respondents; high or excessive workload as cited by 81.1% (n = 77) of the respondents; high intensity of ICU work demands as cited by all (100%, n = 95) of the respondents and time-related constraints as cited by 73.7% (n = 70) of the respondents.

Others included space related constraints as cited by 60% (n = 57) of the respondents; ICU care team communication breakdown as cited by 53.7% (n = 51) of the respondents; unsupportive working structures as cited by 75.8% (n = 72) of the respondents; fear of infection transmission to the patient as cited by 64.2% (n = 61) of the respondents; lack of or inadequate managerial support as cited by 72.6% (n = 69)

of the respondents and lack of clear hospital based family support protocols as cited by 76.8% (n = 73) of the respondents;

In addition, poor patient treatment outcomes as cited by 51.6% (n = 49) of the respondents; poor attitude towards family engagement in ICU care as cited by 34.7% (n = 33) of the respondents; nurse-patients' relatives misunderstandings as cited by 43.2% (n = 41) of the respondents; poor or inadequate facilitation at work as cited by 69.5% (n = 66) of the respondents and poor team work among the ICU care team as cited by 14.7% (n = 14) of the respondents were also cited as part of the work-related challenges which the intensive care nurses experienced in providing support to families of critically ill patients at KNH.

These observations on the work-related challenges experienced by critical care nurses in providing support to families of ICU patients were also evident from the verbal excerpts derived from the interviews with the ICU nurse managers. Major themes derived from the discussions with the ICU nurse managers included time and space constraints in the ICU setting, ICU staffing and workload related challenges, inadequate institutional support and inadequate emphasis on family support as a critical component of ICU patients' care. These are as outlined below;

Theme 1 - Time and space constraints in the ICU setting

> Participant m004: "In my view, what makes it hard for the nurses to provide support to families of these patients is time and space constraints within the ICU setting."
>
> Participant m010: "I guess we are unable to effectively offer support to the ICU patients' families due to time and space limitations in our work setting."

Theme 2 - ICU staffing and workload related challenges

> Participant m007: "It is difficult for the nurses to offer adequate support to the ICU patients' families owing to inadequate number of available nurses in our ICUs."
>
> Participant m005: "One of the leading work-related challenges that curtails critical care nurses' ability to offer support to families of critically ill patients here is under-staffing. We barely have enough nurses even to meet current work demands".

> Participant m001: "I would single out understaffing as a major barrier to our nurses' ability to offer support to families of our clients."

Theme 3 - Inadequate institutional support

> Participant m002: "Indeed, inadequate support and facilitation of nurses' work from the hospital's management is a major barrier to their ability to support families of the patients we care for."

> Participant m006: "My view is that as nurses we are not adequately supported and facilitated in our work. It becomes difficult for us to provide support to our patients' families as we already very strained."

Theme 4 - Inadequate emphasis on family support as a critical component of ICU patients' care

> Participant m003: "In my view, I feel like maybe we do not do enough in terms of offering support to families of our patients because family support is a less emphasized component in our work."

> Participant m001: "I would agree that family support is a component of critical care that is hugely neglected and not accorded its due consideration."

> Participant m009: "… unfortunately support to families of critically ill patients despite being a critical component of our work, does not get the attention and emphasis it deserves. That's an area no doubt we should do better."

Further, the study also evaluated the association of the work-related challenges with the intensive care nurses' provision of support to families of the critically ill patients using Chi-square test at 95% confidence interval as illustrated in Table 4.2.

Table 4.2: Association of the work-related challenges with intensive care nurses' provision of support to families of ICU patients

Work-related challenges	Pearson chi-sq. value (X) at 95% CI	df	Chi-sq. p value
Under-staffing	6.885	1	0.011*
High or excessive workload	7.723	1	0.004*
High intensity of ICU work demands	11.636	1	0.000*
Time related constraints	4.188	1	0.037*
Space related constraints	4.171	1	0.040*
Poor team work among the ICU care team	1.178	1	0.143
ICU care team communication breakdown	4.791	1	0.027*
Poor or inadequate facilitation at work	5.108	1	0.023*
Unsupportive working structures	6.362	1	0.016*
Poor attitude towards family engagement in ICU care	1.410	1	0.169
Nurse-patients' relatives misunderstandings	2.414	1	0.106
Fear of infection transmission to the patient	1.855	1	0.221
Poor patient treatment outcomes	4.415	1	0.033*
Lack of or inadequate managerial support	4.390	1	0.038*
Lack of clear family support protocols	6.163	1	0.014*

* Statistically significant at 95% CI

Results in Table 4.2 indicate that among the leading work-related challenges found to have a statistically significant association with the intensive care nurses' provision of support to families of critically ill patients included: high intensity of ICU work demands (X^2 = 11.636, df = 1 and p = 0.000); high or excessive workload (X^2 = 7.723, df = 1 and p = 0.004); under-staffing (X^2 = 6.885, df = 1 and p = 0.011); lack of clear family support protocols (X^2 = 6.163, df = 1 and p = 0.014); unsupportive working structures (X^2 = 6.362, df = 1 and p = 0.016) and poor or inadequate facilitation at work (X^2 = 5.108, df = 1 and p = 0.023).

Other work-related challenges also identified as having a statistically significant association with the intensive care nurses' provision of support to families of critically

ill patients were: time related constraints; space related constraints; ICU care team communication breakdown; poor patient treatment outcomes and lack of or inadequate managerial support as all yielded chi-square p-values < 0.05.

However, no statistically significant association was established between the intensive care nurses' provision of support to families of critically ill patients and these work-related challenges: poor attitude towards family engagement in ICU care; nurse-patients' relatives misunderstandings; fear of infection transmission to the patient and poor team work among the ICU care team, as all had Chi-square p values > 0.05.

4.4.3 Possible Actions to Address the Work-Related Challenges in Provision of Support to Families of ICU Patients

The respondents were also requested to indicate what could be done to address the identified work-related challenges to provision of support to families of critically ill patients in KNH's ICUs. From the interviews with the intensive care nurses and the ICU nurse managers, three major themes emerged with respect to possible actions and/or strategies that could help resolve the work-related challenges in providing support to families of critically ill patients at KNH. The three themes are as highlighted in the following verbatim;

Theme 1 - Need for greater support and adequate facilitation of the ICU nurses in their provision of the family support role

The theme emphasized on the need for critical care nurses to be adequately supported and facilitated in their work to enable them to be able to more effectively offer support to families of critically ill patients in the hospital. This is captured in the following verbal excerpts;

> Participant ccn046: "… no doubt, critical care nurses need a hand for them to be able to effectively perform the role of providing support to families of our patients."

> Participant m003: "There's need for deliberate effort on the part of the hospital's management to ensure critical care nurses are adequately supported and facilitated. That's where to start."

> Participant ccn061: “Critical care nurses need to be adequately supported and facilitated in their role of providing support to families of the ICU patients”.
>
> Participant m008: “I have no doubt that there is need for greater support and facilitation of the critical care nurses in their role of providing support to families of the critically ill patients”.

Theme 2 - Better management of ICU work load

This theme emphasized on the need for better management of the critical care nurses' work load so they could afford opportunities for provision of support to families of critically ill patients in the hospital. This is illustrated in the following verbal excerpts;

> Participant ccn27: “Better management of the work load in our ICUs is required. This could be achieved with more efficient work allocation”.
>
> Participant m009: “We need to recruit more nurses to support the work load in our ICUs”.
>
> Participant ccn3: “Better work structures that allow integration of family support into the work load of critical care nurses are required in the ICUs”.
>
> Participant ccn55: “I am of the view that critical care nurses' work should be organized in a manner that accords them an opportunity to provide support to families of the patients we care for.”

Theme 3 - Greater emphasis on provision of support to families of ICU patients as a critical component of ICU patients' care

> Participant m001: “I would suggest that there is need for creation of more time and space for closer and meaningful interactions between the ICU patients' families and the critical care team.”
>
> Participant ccn78: “My view is that there is need for greater emphasis on the significance of support to families of ICU patients among the critical care nurses.”
>
> Participant ccn50: “There is need for improved facilitation and greater support of the work of the critical care nurses.
>
> Participant m008: “I feel it's time family support was accorded its due emphasis. It's such an important element of care of critically ill patients, yet it's barely actualized in our care settings.”
>
> Participant ccn42: “support to families of severely ill patients is an area we have not been doing very well. More attention and action is indeed required on this critical component of care for these patients.”

4.5 Capacity-Related Challenges Experienced by Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

The second objective of the study sought to establish the capacity-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital. Results are as described in the subsequent sub-sections.

4.5.1 Respondents' View Regarding Existence of Capacity-Related Challenges in Provision of Support to Families of ICU Patients

The respondents were asked whether they would acknowledge that ICU nurses at KNH faced various capacity-related challenges in providing support to families of critically ill patients in the hospital. From the findings, all of the intensive care nurses (100%, n = 95) and the ICU nurse managers (100%, n = 10) acknowledged that ICU nurses at Kenyatta National Hospital experienced various capacity-related challenges in their efforts to provide support to families of critically ill patients in the hospital.

Further, the intensive care nurses were requested to rate their level of competence or expertise in providing support to families of critically ill patients admitted in KNH's ICUs. Findings are shown in Figure 4.9.

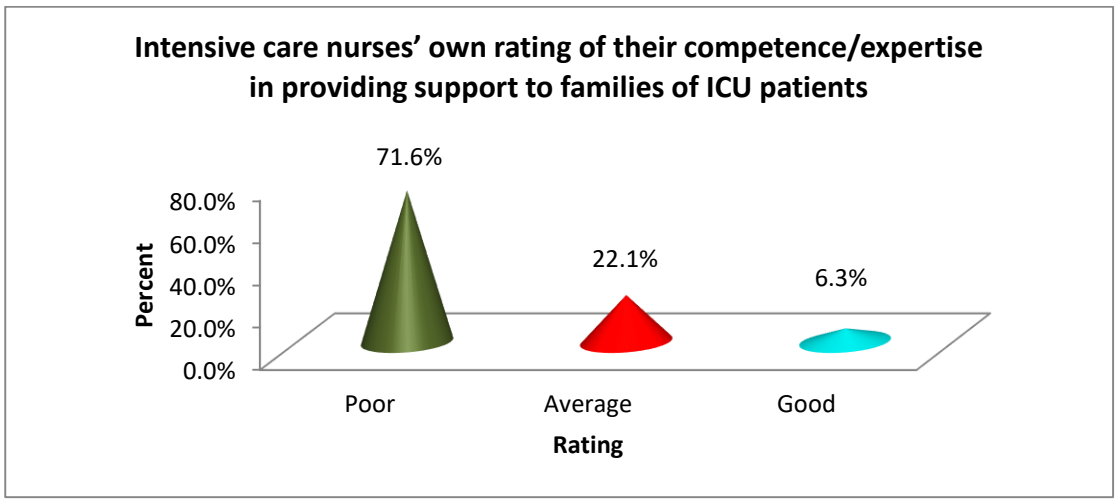

Figure 4.9: Intensive care nurses' own rating of their competence/expertise in providing support to families of ICU patients

From the results, most (71.6%, n = 68) of the intensive care nurses rated their level of competence or expertise in providing support to families of critically ill patients in the hospital as poor while 22.1% (n = 21) rated it as average, denoting appreciation of gaps in their capacity to offer support to the families of the ICU patients.

4.5.2 Capacity-Related Challenges Experienced by the Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

The intensive care nurses were requested to identify some of the capacity-related challenges which they experienced in providing support to families of critically ill patients at KNH. The results are as illustrated in Table 4.3.

Table 4.3: Work-related challenges experienced by intensive care nurses in providing support to families of ICU patients (n = 95)

	Capacity-related challenges	Frequency (n)	Percent (%)
a.	Nurses' inadequate training on ICU based family support	82	86.3
b.	Nurses' inadequate/poor awareness of family support protocols/guidelines in the ICU settings	95	100.0
c.	Communication breakdown among the critical care team	56	58.9
d.	Nurse's poor attitude towards persistent family presence in or around the ICU setting	63	66.3
e.	Nurses' poor communication skills	44	46.3
f.	Nurses' poor interpersonal skills	50	52.6
g.	Competing priorities in ICU settings	78	82.1

Results in Table 4.3 indicate that the leading capacity-related challenges experienced by the intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital related to the nurses' inadequate training on ICU based family support; their poor awareness of family support protocols/guidelines in the ICU settings and competing priorities in ICU settings.

These observations on the capacity-related challenges experienced by critical care nurses in providing support to families of ICU patients were also espoused by the ICU nurse managers. Major themes derived in this respect from the interviews with the ICU nurse managers included inadequate training of ICU nurses on family support, ICU nurses' unawareness of existing hospital protocols on support for families of ICU patients, competing work related priorities and gaps in ICU nurses communication and interpersonal skills. These are as demonstrated in the following interview excerpts;

Theme 1 - Inadequate training of ICU nurses on family support

> Participant m001: "My thinking is that our nurses are inadequately trained on family support within the critical care context."
>
> Participant m004: "As critical care nurses we are not well trained on this aspect in the critical care context."
>
> Participant m007: "What impedes nurses' ability to effectively provide support to the patient's families is poor training among the ICU nurses with respect to provision of family support in the care of ICU patients."

Theme 2 - ICU nurses' unawareness of existing hospital protocols on support for families of ICU patients

> Participant m003: "My observation has been that most of our critical care nurses are poorly aware of exiting hospital protocols regarding support to families of the ICU patients."
>
> Participant m001: "To be honest, I am not even aware of what are the hospital's protocols with respect to support of patients' families in the ICUs."

Theme 3 - Competing work related priorities

> Participant m006: "I would point to competing work related priorities as being major impediments to nurses' provision of support to our clients' families."
>
> Participant m008: "we have so much work to do while in the critical care wards and the work is quite demanding. Priorities are fluid depending on patients' conditions and hence it's hard to even get time for provision of support to families of the patients we care for."
>
> Participant m009: "Here it's all work work and more work, non-stop. How then would I be able to provide support to these patients' families?"

Theme 4 - Gaps in ICU nurses communication and interpersonal skills

> Participant m002: "Gaps in communication and interpersonal skills among most of the nurses act as major barriers to their provision of support to families of the patients we look after."
>
> Participant m007: "Nurses' poor attitude towards persistent family presence while caring for the ICU patients is a leading challenge. This could also point the gaps in their communication and interpersonal skills, an area that requires greater emphasis".
>
> Participant m010: "Personally, I would cite gaps in the critical care team's communication and interpersonal skills, communication breakdown among the critical care team as key challenges in this respect".

Further, the study also evaluated the association of the capacity-related challenges with the intensive care nurses' provision of support to families of the critically ill patients using Chi-square test at 95% confidence interval as presented in Table 4.4.

Table 4.4: Association of the capacity-related challenges with intensive care nurses' provision of support to families of ICU patients

Capacity-related challenges	Pearson chi-sq. value (X) at 95% CI	df	Chi-sq. p value
Nurses' inadequate training on ICU based family support	6.708	1	0.000*
Nurses' inadequate/poor awareness of family support protocols/guidelines in the ICU settings	8.161	1	0.000*
Communication breakdown among the critical care team	1.372	1	0.154
Nurse's poor attitude towards persistent family presence in or around the ICU setting	4.188	1	0.028*
Nurses' poor communication skills	5.513	1	0.015*
Nurses' poor interpersonal skills	4.820	1	0.019*
Competing priorities in ICU settings	6.391	1	0.001*

* Statistically significant at 95% CI

From the findings, among the leading capacity-related challenges found to have a statistically significant association with the intensive care nurses' provision of support to families of critically ill patients included: nurses' inadequate training on ICU based family support; nurses' inadequate or poor awareness of family support protocols/guidelines in the ICU settings and competing priorities in ICU settings as illustrated in Table 4.4 above.

4.5.3 Possible Actions to Address the Capacity-Related Challenges in Provision of Support to Families of ICU Patients

The respondents were also requested to indicate what could be done to address the identified capacity-related challenges experienced in providing support to families of critically ill patients in KNH's ICUs. The results are as presented in Table 4.5.

Table 4.5: Respondents' views on ways to address the capacity-related challenges to ICU nurses' provision of support to families of ICU patients (n = 95)

Measures to address the capacity-related challenges	Frequency (n)	Percent (%)
Regular trainings on family based support for ICU patients	91	95.8
Creating awareness among intensive care nurses on significance of offering support to families of ICU patients	83	87.4
Enhancing nurses' communication skills	76	80.0
Enhancing nurses' interpersonal skills	71	74.7
Enhancing close coordination among the critical care team	88	92.6
Placing emphasis on the crucial role families play in ICU patients' treatment and recovery	81	85.3

These observations on possible solutions to the capacity-related challenges experienced by critical care nurses in providing support to families of ICU patients were also highlighted in the interviews with the ICU nurse managers. Major themes derived included helping ICU nurses gain appreciation of the significance of support to families of ICU patients, adequate training of the ICU nurses on family based

support for ICU patients and enhancing intensive care nurses' communication, coordination and interpersonal skills. These are as highlighted in the following interview excerpts;

Theme 1 - Adequate training of the ICU nurses on family based support for ICU patients

> Participant m001: "These capacity-related challenges can be addressed through regular training of the critical care nurses on how to effectively support and meet the needs of families of the ICU patients."
>
> Participant m006: "Critical care nurses must be thoroughly trained on identifying and meeting the needs of the families of the ICU patients including on how to effectively support the ICU patients' families".
>
> Participant m010: "Trainings on family based support for ICU patients among the critical care nurses are indeed needed".

Theme 2 - Helping ICU nurses gain appreciation of the significance of support to families of ICU patients

> Participant m005: "There is need for greater awareness creation among critical care team members on the importance of providing adequate support to the ICU patients' families".
>
> Participant m002: "Emphasis should be placed on helping critical care nurses gain greater understanding of the significance of providing support to the families of ICU patients".
>
> Participant m004: "Interventions towards improving ICU nurses' perception of the importance of providing family support are indeed needed."

Theme 3 - Enhancing intensive care nurses' communication, coordination and interpersonal skills

> Participant m009: "Closer coordination among the critical care team is needed coupled with enhancing the communication and interpersonal skills of the critical care team members including nurses".
>
> Participant m003: "My view is that we can address these capacity-related challenges through enhancing the communication and interpersonal skills of the critical care nurses."
>
> Participant m007: "Critical care nurses' communication and interaction skills with these patients' family members should be sharpened".

4.6 Psychosocial Challenges Experienced by Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

The third objective of the study sought to establish the psychosocial challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital. Findings are as presented in the subsequent sub-sections.

4.6.1 Psychosocial Challenges Experienced by the Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

The intensive care nurses were requested to highlight psychosocial challenges that they experienced in providing support to families of critically ill patients at Kenyatta National Hospital. The results are as summarized in Table 4.6.

Table 4.6: Psychosocial challenges experienced by intensive care nurses in providing support to families of ICU patients (n = 95)

	Psychosocial challenges	Frequency (n)	Percent (%)
a.	Persistent worries and fears about patient's poor/uncertain prognosis	92	96.8
b.	Feeling depressed over possibility of losing the patient	86	90.5
c.	Feeling stressed out due to the intensity of work demands	95	100.0
d.	Persistent sadness over patient's deteriorating health status	73	76.8
e.	Excessive moodiness/irritability over work-related pressures	62	65.3
f.	Feeling of hopelessness and/or helplessness due to un-improving patient's condition	53	55.8
g.	Difficulties in interacting with the patient's relatives	59	62.1
h.	Inability to sleep properly over concerns of the health status of patients you attend to	40	42.1
i.	Inability to concentrate effectively at work	27	28.4
j.	Feelings of exhaustion/tiredness/fatigue due to excessive work load in the workplace	95	100.0
k.	Feeling worn out/overwhelmed due to demands of the work you do	95	100.0
m.	Feeling emotionally strained as a result of the nature of work you do	68	71.6
n.	Feelings of being not adequately supported at work by the institution's management	75	78.9

Findings in Table 4.6 indicate that the leading psychosocial challenges experienced by the intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital included persistent worries and fears about patient's poor prognosis; feeling depressed over possibility of losing the patient; feeling stressed out due to the intensity of work demands; feelings of exhaustion/tiredness/fatigue due to excessive work load in the workplace; feeling worn out/overwhelmed due to demands of the work you do; feeling emotionally strained as a result of the nature of work they did and feelings of being not adequately supported at work by the institution's managementas.

These observations on the psychosocial challenges experienced by critical care nurses in providing support to families of ICU patients were also espoused in the interviews with the ICU nurse managers. Major themes derived included depression, anxiety and helplessness. These are as demonstrated in the following interview excerpts;

Theme 1 - Depression

> Participant m009: "The demands of this work often leave us physically and mentally depressed and exhausted. We constantly worry and fear for the worst even as we strive for the best possible patient care outcomes".
>
> Participant m010: "Personally, I have struggled with feelings of mental distress and helplessness due to seeing patients succumb to their illnesses in our setting. It's a tough call at best".
>
> Participant m007: "Physical, mental and emotional exhaustion and/or strain experiences are part of lives as critical care nurses".
>
> Participant m005: "I get irritable, physically and emotionally tired and stressed out, at times, due to work related pressures".

Theme 2 - Anxiety

> Participant m002: "Persistent pressure from work demands makes most of us feel stressed out. Personally, I experience anxiety and emotional anguish over possible loss of a patient I am caring for. I ma sure this is the case with many of my colleagues."
>
> Participant m004: "I get worried and very concerned when I see a patient's health significantly deteriorate".

> Participant m001: "In view of the nature of patients we care for, it is no doubt that we regularly experience episodes of persistent worry and concern over our patients' health status and prognosis."

Theme 3 - Helplessness

> Participant m006: "As critical care nurses, you cannot fail to feel helpless and hopeless when you see your patient losing the fight. It is hallowing".

> Participant m002: "Our work is rather difficult at times, may be most of the times. It can leave you feeling helpless and dejected; especially when things go south to a patient you did your best to support."

Further, the study also evaluated the association of the psychosocial challenges with the intensive care nurses' provision of support to families of the critically ill patients using Chi-square test at 95% confidence interval. Results are as contained in Table 4.7.

Table 4.7: Association of the psychosocial challenges with intensive care nurses' provision of support to families of ICU patients

Psychosocial challenges	Pearson chi-sq. value (X) at 95% CI	df	Chi-sq. p value
Persistent worries and fears over patient's poor/uncertain prognosis	7.118	1	0.000*
Mental distress over possible loss of patients	6.702	1	0.005*
Feelings of stress due to intense work demands	5.944	1	0.014*
Irritability due to work-related pressure	4.537	1	0.025*
Feelings of hopelessness and/or helplessness due to non-improving patient's condition	4.880	1	0.017*
Poor sleep patterns due to concerns over patients health status	3.639	1	0.036*
Physical and mental exhaustion due to excessive work load	6.916	1	0.000*
Emotional strain attributable to nature of work	4.086	1	0.031*
Inadequate support from institutional management	4.624	1	0.022*

* Statistically significant at 95% CI

According to the results shown in Table 4.7, among the leading psychosocial challenges found to have a statistically significant association with the intensive care nurses' provision of support to families of critically ill patients included: persistent worries and fears over patient's poor/uncertain prognosis; mental distress over possible loss of patients; feelings of stress due to intense work demands; irritability due to work-related pressure; feelings of hopelessness and/or helplessness due to non-improving patient's condition; poor sleep patterns due to concerns over patients health status; physical and mental exhaustion due to excessive work load; emotional strain attributable to nature of work and inadequate support from institutional management as all had Chi-square p-values of < 0.05.

4.6.2 Possible Actions to Address the Psychosocial Challenges in Provision of Support to Families of ICU Patients

The respondents were also requested to indicate what could be done to address the identified psychosocial challenges experienced in providing support to families of critically ill patients in KNH's ICUs.

From the findings, the intensive care nurses shared the view that some of the possible actions and/or strategies that could help in addressing the psychosocial challenges in providing support to families of critically ill patients at KNH included due recognition and appreciation of the critical care nurses' efforts in their work; offering or availing psychosocial support services to the intensive care nurses; shining light on work-related aspects leading to the psychosocial challenges; ensuring active and meaningful engagement of critical care nurses in critical decisions affecting their work; ensuring prompt identification and resolution of any causes and factors contributing to the psychosocial challenges; ensuring that the critical care nurses are adequately facilitated in their work; promoting a healthy work-life balance among the critical care nurses; training critical care nurses on support to families of ICU patients and holding regular briefs where intensive care nurses can freely air any work-related grievances and/or views.

These observations on possible solutions to the psychosocial challenges experienced by critical care nurses in providing support to families of ICU patients were also evident from the verbal excerpts derived from the interviews with the ICU nurse managers. Major themes derived included availing high quality psychosocial support services to the ICU nurses, need for greater recognition and appreciation of ICU nurses' work and efforts, and ensuring that ICU nurses have a voice in important decisions that affect their work. These are as illustrated in the following interview excerpts;

Theme 1 - Availing high quality psychosocial support services to the ICU nurses

> Participant m002: "To address these psychosocial challenges among the critical care nurses here, there is need for greater emphasis on availing quality psychosocial support services to these nurses."
>
> Participant m005: "To resolve these psychosocial challenges, I would suggest two solutions - ensuring that the critical care nurses and other team members have access to high quality psychosocial support services and ensuring active and meaningful engagement of critical care nurses in critical decisions affecting their work".
>
> Participant m006: "Critical care nurses would no doubt greatly benefit from psychosocial support programs"

Theme 2 - Need for greater recognition and appreciation of ICU nurses' work and efforts

> Participant m003: "No doubt, critical care nurses' efforts in their work deserve due recognition and appreciation in this hospital."
>
> Participant m001: "Critical care nurses need more appreciation and recognition for the great work they do. They are on life saving missions literally, day in day out. They deserve to be applauded."
>
> Participant m008: "efforts are needed to ensure that ICU nurses' selfless acts and devotion in their work do not go unnoticed and unappreciated."

Theme 3 - Ensuring that ICU nurses have a voice in important decisions that affect their work

> Participant m008: "The solution to these challenges lies in ensuring that the critical care nurses are adequately facilitated in their work, promoting a healthy work-life balance among the critical care nurses and ensuring that the nurses have a voice in important operational decisions that affect their work".

CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents discussion of findings, conclusions and recommendations of the study in line with the study objectives. The study explored the challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital.

5.2 Discussion of Findings

The findings were discussed under the following sub-headings: work-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital, capacity-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital and psychosocial challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital.

5.2.1 Demographic Characteristics of the Respondents

The results showed that the study respondents were middle-aged male and female intensive care nurses who had a sound education background, were married, professed mostly Christian faith and had worked as critical care nurses for a considerable duration.

Having worked in intensive care settings for a considerable period implied that the respondents were in a good position to offer valuable insights on challenges that they experienced in providing support to families of the patients they cared for. The results agreed with those of Jacob et al. (2016) and Büyükçoban et al. (2021) whose study participants were also male and female critical care nurses, well-educated and mostly married, that had served in critical care settings for a considerable period. Studies by Imanipour and Kiwanuka (2020) and Elay et al. (2020) also reported similar

demographics for their respondents who were largely middle-aged male and female intensive care nurses, Christians by faith and mostly in marital unions, who had considerable experience working in critical care settings.

5.2.2 Work-Related Challenges Experienced by Intensive Care Nurses in Providing Support to Families of Critically Ill Patients

According to this study, the work-related challenges established to have a statistically significant association with the intensive care nurses' provision of support to families of critically ill patients included: high intensity of ICU work demands; high or excessive workload; under-staffing; lack of clear family support protocols; unsupportive working structures; poor or inadequate facilitation at work; time related constraints; space related constraints; ICU care team communication breakdown; poor patient treatment outcomes and lack of or inadequate managerial support as all yielded chi-square p-values < 0.05. This depicted that intensive care nurses at KNH did experience a wide range of work-related challenges that impeded their provision of support to families of critically ill patients in the hospital.

This collaborated with the findings of Alsharari (2019) who in a descriptive cross-sectional undertaken in Saudi Arabia highlighted excessive workload, understaffing, time and space restrictions and sub-optimal team culture as leading work-related barriers that impeded critical care nurses' role of providing support to families of ICU patients. Similarly, Chhetri and Thulung (2018) and Mahran et al. (2017) in studies conducted in Nepal and Egypt respectively also identified lack of clear policies on family support within ICU settings, unsupportive working structures, ICU care team communication breakdown and lack of or inadequate management support of intensive care nurses' work as major work-related barriers to critical care nurses' provision of support to families of critically ill patients in ICU settings.

Similar observations were also reported in studies by Hashim and Hussin (2012), Sánchez-Vallejo et al. (2016) and Jacob et al. (2016) in which under-staffing; lack of clear guidelines regarding support of ICU patients' families; rigid working structures; inadequate facilitation of critical care nurses in their work; excessive workload; time

and space related constraints; ICU staff communication hiccupsandpoor support from institutional management were cited as leading work-related challenges that impeded critical care nurses' ability to effectively provide support to families of ICU patients.

Further, the study participants identified additional recruitments to increase the number of the ICU nurses; formulation of clear facility based protocols on support to families of ICU patients; increased management support to the ICU health care team; increased facilitation of the critical care nurses in their work; reduced workload for the intensive care nurses through efficient work allocation; effective management of the ICU workload; creation of more time and space for closer and meaningful interactions between the ICU health care team and families of the ICU patients and greater emphasis on the value of support to families of ICU patients among the intensive care nurses as possible strategies/actions that would help address the work-related challenges experienced by critical care nurses in providing support to families of ICU patients.

This agreed with Alsharari (2019) and Sánchez-Vallejo et al. (2016) who averred that open and effective communication among the critical care health team, close collaboration with the patients' families, clear guidelines on support to families of ICU patients in the ICU setting and greater emphasis on the value of support to families of ICU patients among the intensive care nurses were positive enablers of provision of support to families of critically ill patients by intensive care nurses. According to Thirsk et al. (2021), adequate institutional support and facilitation of critical care nurses' work, a positive work environment, reduced workload for the intensive care nurses through efficient work allocation helped facilitate ICU nurses' effective delivery of support to families of ICU patients.

Similar sentiments were also shared by Munyiginya and Brysiewicz (2014), Maina et al. (2018) and Khalaila (2014). who cited adequate support and facilitation of ICU nurses in their work; effective management of the ICU workload; devotion of sufficient time and space for closer and meaningful interactions between the ICU nurses and families of the ICU patients and greater emphasis on the importance of offering support to families of ICU patients as potential facilitators of intensive care

nurses' role in relation to providing support to families of critically ill patients within critical care settings. Burns et al. (2018) and Kynoch and Ramis (2021) also shared the view that ensuring that ICUs are adequately staffed; having clear facility based protocols on support to families of ICU patients; increased facilitation and support of the critical care nurses in their work and creation of adequate time and space for closer interactions of critical care nurses and the ICU patients' families would enhance the nurses' ability to provide better support to families of these patients.

5.2.3 Capacity-Related Challenges Experienced By Intensive Care Nurses In Providing Support To Families Of Critically Ill Patients

The study established that there was unanimity among the intensive care nurses and the ICU nurse managers at KNH that they did experience capacity-related challenges in providing support to families of critically ill patients in the hospital. They attributed this largely to lack of training on family based support for this highly vulnerable patient population. This concurred with Kohi et al. (2016) and McAndrew et al. (2020) who also acknowledged that in most critical care settings, intensive care nurses did face capacity-related challenges owing to lack of training on how to meet the needs of families of the critically ill patients. Similar sentiments were shared by Kiwanuka et al. (2019) and Jafarpoor et al. (2020) who also noted that capacity-related challenges in relation to provision of support to families of ICU patients were prevalent among the intensive care nurses in many critical care settings.

According to this study, the capacity-related challenges established to have a statistically significant association with the intensive care nurses' provision of support to families of critically ill patients included: nurses' inadequate training on ICU based family support; nurses' inadequate or poor awareness of family support protocols/guidelines in the ICU settings; nurse's poor attitude towards persistent family presence in or around the ICU setting; nurses' poor communication skills; nurses' poor interpersonal skills and competing priorities in ICU settingsas all yielded chi-square p-values < 0.05. This depicted that intensive care nurses at KNH did experience a wide range of capacity-related challenges that impeded their provision of support to families of critically ill patients in the hospital. i would attribute these

findings to possible lack of training among the intensive care nurses on how to meet the needs of families of the critically ill patients and possible lack of or low emphasis of the needs of ICU patients' families within the critical care setting.

This collaborated with the findings of Gondwe et al (2011) and Imanipour et al. (2019) who reported inadequate training on provision of support to families of ICU patients; non-existence of documented guidelines regarding family support in ICU context; ill preparation on how to communicate with the patients' family members and being unable to effectively handle families and patients diverse needs as some of the challenges faced by the intensive care nurses in their work. Abdel-Aziz, et al. (2017), Ocak and Avsarogullari (2019) and Elay et al. (2020) did also report that critical care nurses' inadequate training on ICU based family support, their poor attitude towards frequent family involvement in the ICU settings and inadequacies in their communication and interpersonal skills did impede their provision of support to these patients' families.

According to studies by Büyükçoban et al. (2021) in Turkey and Chhetri and Thulung (2018) in Nepal, critical care nurses' inadequate training regarding support for ICU patients families; their inadequate or poor awareness of family support protocols/guidelines in the ICU settings and their poor attitude towards persistent family presence in or around the ICU setting constituted some of the capacity-related challenges that these nurses experienced in providing support to families of the critically ill patients. Similarly views were expressed by Jacob et al. (2016), Jordan (2018) and Naef et al. (2021) who argued that ICU nurses' inadequate training on ICU based family support; their lack of awareness of family support protocols/guidelines in the ICU settings and their inadequacies in communication and interpersonal skills coupled with competing priorities in ICU settings impeded their ability to effectively offer support to families of critically ill patients in the ICU setting.

Further, the study participants identified regular trainings on family based support for ICU patients; creating awareness among intensive care nurses on significance of offering support to families of ICU patients; enhancing nurses' communication skills;

enhancing nurses' interpersonal skills; enhancing close coordination among the critical care team and placing emphasis on the crucial role families play in ICU patients' treatment and recovery as possible strategies/actions that would help address the capacity-related challenges experienced by critical care nurses in providing support to families of ICU patients. Similar views were expressed by Alsharari (2019), Imanipour and Kiwanuka (2020) and Thirsk et al. (2021) who also cited regular trainings to critical care nurses on family based support for ICU patients; creating awareness among intensive care nurses on significance of offering support to families of ICU patients and enhancing their communication and interpersonal skills, sentiments also shared by Al-Mutair et al. (2018) and Salameh et al. (2020).

5.2.4 Psychosocial Challenges Experienced By Intensive Care Nurses In Providing Support To Families Of Critically Ill Patients

According to this study, the psychosocial challenges established to have a statistically significant association with the intensive care nurses' provision of support to families of critically ill patients included: persistent worries and fears over patient's poor/uncertain prognosis; mental distress over possible loss of patients; feelings of stress due to intense work demands; irritability due to work-related pressure; feelings of hopelessness and/or helplessness due to non-improving patient's condition; poor sleep patterns due to concerns over patients health status; physical and mental exhaustion due to excessive work load; emotional strain attributable to nature of work and inadequate support from institutional management as all yielded chi-square p-values < 0.05. This depicted that intensive care nurses at KNH did experience psychosocial challenges that impeded their provision of support to families of critically ill patients in the hospital. I would attribute these findings to the highly demanding nature of working in intensive care settings and the numerous competing priorities that exist while striving to achieve the best possible patient care outcomes in these settings.

This agreed with Hashim and Hussin (2012), Jacob et al. (2016) and Kiwanuka et al. (2019) who did acknowledge that working in critical care settings occasioned a wide range of psychosocial challenges to nurses working in such environment manifested

in their persistent worries and fears over patient's health status and prognosis; anxiety and mental distress over possible loss of patients; and feelings of hopelessness and/or helplessness due to non-improving patient's condition. Similar observations were made by McConnell and Moroney (2015), Sánchez-Vallejo et al. (2016) and Naef et al. (2021) who also argued that intensive care nurses did experience psychosocial challenges in providing support to families of ICU patients owing to the nature of their work which manifest in forms of persistent worries and fears over patient's poor/uncertain prognosis; anxiety and mental anguish over possible loss of patients; feelings of stress due to intense work demands; physical and mental exhaustion due to excessive work load; emotional strain attributable to nature of work; irritability due to work-related pressure and feelings of hopelessness and/or helplessness due to non-improving patient's condition.

Further, the study participants identified due recognition and appreciation of the critical care nurses' efforts in their work; offering or availing psychosocial support services to the intensive care nurses; shining light on work-related aspects leading to the psychosocial challenges; ensuring active and meaningful engagement of critical care nurses in critical decisions affecting their work; ensuring prompt identification and resolution of any causes and factors contributing to the psychosocial challenges; ensuring that the critical care nurses are adequately facilitated in their work; promoting a healthy work-life balance among the critical care nurses; training critical care nurses on support to families of ICU patients and holding regular briefs where intensive care nurses can freely air any work-related grievances and/or views as possible strategies/actions that would help address the psychosocial challenges experienced by critical care nurses in providing support to families of ICU patients.

This concurred with McConnell and Moroney (2015), Abdel-Aziz et al. (2017) and Salameh et al. (2020) who also pointed that the psychosocial challenges experienced by intensive care nurses in providing support to families of critically ill patients in critical care settings could be addressed through interventions such as offering or availing psychosocial support services to the intensive care nurses, addressing work-related aspects leading to the psychosocial challenges; ensuring active and meaningful

engagement of critical care nurses in critical decisions affecting their work and ensuring prompt identification and resolution of any causes and factors contributing to the psychosocial challenges among the nurses. On their part, Burns et al. (2018) and Büyükçoban et al. (2021) suggested ensuring that the critical care nurses are adequately facilitated in their work; promoting a healthy work-life balance among the critical care nurses and training critical care nurses on support to families of ICU patients as possible solutions to the psychosocial challenges experienced by intensive care nurses in providing support to families of critically ill patients.

5.3 Conclusions

Based on the findings of the study, the following conclusions were drawn:

High intensity of ICU work demands; high or excessive workload; under-staffing; lack of clear family support protocols; unsupportive working structures; poor or inadequate facilitation at work; time related constraints; space related constraints; ICU care team communication breakdown; poor patient treatment outcomes and lack of or inadequate managerial support were the leading work-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at KNH.

Nurses' inadequate training on ICU based family support; nurses' inadequate or poor awareness of family support protocols/guidelines in the ICU settings; nurse's poor attitude towards persistent family presence in or around the ICU setting; nurses' poor communication skills; nurses' poor interpersonal skills and competing priorities in ICU settings were the leading capacity-related challenges experienced by intensive care nurses in providing support to families of critically ill patients at KNH.

Persistent worries and fears over patient's poor/uncertain prognosis; mental distress over possible loss of patients; feelings of stress due to intense work demands; irritability due to work-related pressure; feelings of hopelessness and/or helplessness due to non-improving patient's condition; poor sleep patterns due to concerns over patients health status; physical and mental exhaustion due to excessive work load; emotional strain attributable to nature of work were the leading psychosocial

challenges experienced by intensive care nurses in providing support to families of critically ill patients at KNH.

5.4 Recommendations

5.4.1 Action Recommendations

Efforts should be made by the management of KNH to ensure that intensive care nurses in the hospital are adequately supported and facilitated in their role of offering support to families of ICU patients admitted in the hospital. this would go along way in helping them deal with any work-related challenges they experienced while undertaking this role.

There is need for intensive care nurses at KNH to be adequately trained on how to effectively offer support to families of critically ill patients at KNH. This would help improve their skills and competence on this role thereby addressing any capacity-related challenges they experienced while undertaking this role.

The management of KNH should ensure that intensive care nurses working in the hospital have access to high quality psychosocial support services that would enable them cope effectively with psychosocial challenges experienced in provision of support to families of critically ill patients in the hospital.

5.4.2 Recommendations for Further Studies

Since the current study explored the challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital; a wider study involving other hospitals that offer intensive care services in the country is hereby recommended. This would facilitate a broader comparison and generalization of the study findings. Further, an investigation of the effects of support accorded to families of ICU patients and family involvement in care processes on patient care outcomes at KNH's Intensive Care Units would equally be illuminating.

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APPENDICES

Appendix 1: Consent Explanation Document

Title of Study: Challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital

Principal Investigator\and institutional affiliation: Safina Mohamed Iqbal, University of Nairobi

Supervisors: Dr. Eunice Omondi&Dr. Joyce Jebet, University of Nairobi

Introduction

My name is Safina Mohamed Iqbal student at the University of Nairobi's Department of Nursing Sciences pursuing a Master of Science Degree in Critical Care Nursing. I am undertaking a thesis study on 'challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital'.

Purpose of the study

This study's goal is to explore the challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital. Kindly participate in this study by offering your feedback and point of view with regard to the subject under study. If you consent to take part in this study, the interviewer will request you to respond to a number of questions seeking to elicitinformation with regard to work related, capacity related and psychosocial challenges you experience in provision of support to families of critically ill patients admitted in KNH's ICUs. Our discussion will take about 15 minutes.

Confidentiality

Gathered data/information will be handled and processed in confidence. The study's information acquired through its study tool will be utilized for the sole aim of the research study. No personal details or any other form of personal identification will appear anywhere in the study.

Voluntary participation

You are participating in this research on your own free will and without any coercion.

Right of withdrawal

Should you feel/wish to terminate your participation in this study, you are at liberty to do so at any point and there will be no penalties for doing so.

Benefit

This research study is aimed at an academic goal. Through your participation, the responses provided to this study's research tool will be instrumental to various parties in their effort to improvelevels of support to families of ICU-admitted patients withincritical care settings at KNH, whose first crucial step is gaining a clear understanding of the challenges experienced by intensive care nurses in providing support to families of critically ill patients. Note, however, no financial incentives will be given for your participation.

Risks

There is no any anticipated risk or harm to you for participating in this research study. In light of the ongoing COVID-19 pandemic in the country, however, and thus to limit risk of COVID-19 transmission, all Ministry of Health's issued guidelines on prevention of COVID-19 will be adhered to during interviews for collecting data.

Contacts

If you have any questions about this study, kindly talk to;

Principal researcher: SafinaMohamedIqbal, Cell: 0735 450 235

OR

Lead supervisor: Dr. Eunice Omondi, Cell: 0722 728 123; Email: eaomondi@uonbi.ac.ke

OR

Prof. M.L. Chindia, Secretary, Ethics and Research Committee of KNH/UoN, Telephone: 020-2726300 Ext 44355

Appendix 2: Consent Form

Respondent's Declaration

I have been fully informed about the nature of the study, I know the benefits, and understand that there are no risks involved. I hereby give my consent to participate in this study.

Signature of participant ……. Date …….

Researcher's Declaration

I have fully disclosed all the relevant information concerning this study to the study respondent

Signature of researcher ……. Date ……

-

Appendix 3: Questionnaire for the Intensive Care Nurses

Title of the study: Challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital

Date: ……. **Code:** ……..

Instructions:

a) Do not write your name(s) on the questionnaire.

b) Tick ALL appropriate responses in the spaces provided in each question.

c) Feel free to respond to ALL the questions. You are however at liberty not to answer questions you find uncomfortable to respond to.

Section A: Demographic information of the respondents

1. Indicate your gender: Male ( ) Female ( )

2. What is your age in years? ……..……

3. What is your current level of professional education?

Certificate ( ) Diploma ( )

Bachelors ( ) Masters ( )

Other (specify) ……..

4. What is your religion?

Christianity ( ) Islam ( ) Hindu ( )

Other (specify) …….……

5. What is your marital status?

Married ( ) Not married ( )

6. For how long have you workedas a critical care nurse? ……

7. What is your area of work? [Indicate the actual ICU you work in]

……..

Section B: Nurses' work-related challenges experienced by intensive care nurses in providing support to families of critically ill patients

8.Would you agree that work-related challenges are an area of concern in meeting the needs of families ofICU patients?

Yes ( ) No ( )

9. The following list highlights some of the potential work-related challenges that impede your effective provision of family support for ICU patients. Kindly tick the ones that you have experienced.

	List of potential nurses' work related challenges in provision of support to families of critically ill patients	**[Tick the one(s) you have experienced]**
a.	Under-staffing	
b.	High or excessive workload	
c.	High intensity of ICU work demands	
d.	Time related constraints	
e.	Space related constraints	
f.	Poor team work among the ICU care team	
g.	ICU care team communication breakdown	
h.	Poor or inadequate facilitation at work	
i.	Unsupportive working structures	
j.	Poor attitude towards family engagement in ICU care	
k.	Nurse-patients' relatives misunderstandings	
l.	Fear of infection transmission to the patient	
m.	Poor patient treatment outcomes	

n.	Lack of or inadequate managerial support	

10. What other attributes of your work contribute to your inability to effectively provide family support or meet the needs of the ICU patients' families?

……
……
……

11. In your view, what can be done to address these work-related barriers to family centred care in KNH's intensive care units?

……
……..……
……

Section C: Nurses' capacity related challenges experienced by intensive care nurses in providing support to families of critically ill patients

12.Would you agree that capacity-relatedchallenges are an area of concern in meeting the support needs of families of ICUpatients?

Yes ( ) No ( )

13. How would rate your level of competence/expertise in providing support to families of patients admitted in KNH's ICUs?

Poor ( ) Average ( ) Good ( ) Excellent ( )

14. The following list highlights some of the potential nurses' capacity-related challenges that impede your effective provision of support to families of ICU patients. Kindly tick the ones that you have experienced.

List of potential nurses' capacity-related challenges in provision of support to families of critically ill patients	[Tick the one(s) you have experienced]
Inadequate training on ICU based family support	
Lack of clear family support protocols/guidelines in the hospital's ICU	
Communication breakdown among the critical care team	
High intensity of patient care demands	
Nurse's poor attitude towards persistent family presence in or around the ICU setting	
Nurse's poor communication skills	

15. What other attributes of your knowledge, skills and expertise as a critical care nurse hinders your effective provision of family support for the ICU patients?

……
……
……

16. In your view, what can be done to address these capacity-related barriers to family centred care in intensive care settings?

……
……..……
……

Section D: Psychosocial challenges experienced by intensive care nurses in providing support to families of critically ill patients

17. Indicate whether, in relation to working in the ICU setup and in an effort to offer support and meet the needs of ICU patients' families, you have experienced any of the following psychosocialissues. If you have, tick in the column labeled 'Yes' and if you haven't, tick in tick in the column labeled 'No'.

Nurses' psychosocial challenges	**Yes**	**No**
Persistent worries and fears about patient's poor prognosis		
Feeling depressed over possibility of losing the patient		
Feeling stressedout due to the intensity of work demands		
Persistent sadness over patient's deteriorating health status		
Excessive moodiness/irritability over work-related pressures		
Feeling of hopelessness and/or helplessness due to un-improving patient's condition		
Difficulties in interacting with the patient's relatives		
Inability to sleep properly over concerns of the health status of patients you attend to		
Inability to concentrate effectively at work		
Feelings of exhaustion/tiredness/fatigue due to excessive work load in the workplace		
Feeling worn out/overwhelmed due to demands of the work you do		
Feeling emotionally strained as a result of the nature of work you do		
Feelings of being not adequately supported at work by the institution's management		

18. In your view, what can be done to support you both socially and psychologically?

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…….

End

Thank you for your participation

Appendix 4: Interview Guide for the ICU nurse managers

Title of the study: Challenges experienced by intensive care nurses in providing support to families of critically ill patients at Kenyatta National Hospital

Date: ……. **Code:** ……..

Section A: Demographic information of the ICU nurse managers

1. What is your gender: Male ( ) Female( )

2. What is your age in completed years? ……

3. For how long have you worked in KNH? .....

4. For how long have you served as an ICU nurse manager at KNH? …….……

Section B: Challenges experienced by ICU nurses with respect to providing support to families of critically ill patients

1. Would you acknowledge that ICU nurses at KNH face various work-related challenges in provision of family support to ICU patients?

Yes ( ) No ( )

2. If Yes to Question 1 above, what are the work-related aspects that impede effective provision of family support for ICU patients among intensive care nurses working in KNH's ICUs?

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3. In your view, what can be done to address these work-related challenges to provision of support to families of ICU-admitted patients in KNH's intensive care units?

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……..……
…….

4. Would you acknowledge that ICU nurses at KNH experience capacity-related challenges in provision of support to families of ICU patients?

Yes ( ) No ( )

5. If Yes to Question 4 above, what are the capacity-related aspects that impede intensive care nurses' effective provision of support to families of ICU patients in KNH's ICUs?

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6. In your view, what can be done to address these capacity-relatedchallenges to provision of support to families of ICU patients among intensive care nurses in KNH's intensive care units?

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……..……
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7. Would you acknowledge that ICU nurses at KNH experience psychosocial challenges in provision of family support to ICU patients?

Yes ( ) No ( )

8. If Yes to Question 7 above, what are the psychosocial challenges experienced by intensive care nurses working in KNH's ICUs with regard to provision of support to families of ICU patients?

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9. In your view, what can be done to address these psychosocial challenges so as to foster more effective family support in KNH's intensive care units?

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……..……
…….

Thank you for your feedback

Appendix 7: Work Plan

Activity	2021							
	May	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Developing the concept								
Developing the proposal								
Submitting the proposal to Ethics								
Pretesting the instrument								
Analysing the data								
Compiling the project report								
Presenting project results								
Disseminating the study's results								

Appendix 8: Budget

Item	**Quantity**	**Unit Cost**	**Total Cost**
Assorted stationeries			Ksh. 5,400
Questionnaires Interview guides Audio recorder	112 10 1	@Ksh.5per page x 5 pages @Ksh.5per page x 3 pages @Ksh.15,000	Ksh. 2,800 Ksh. 150 Ksh. 15,000
Proposal writing			
Fair copies printing	3 copies, 100 pgs	@Ksh.(5per page x 100)3	Ksh. 1,500
Final copy printing	2 copies, 100 pgs	@ Ksh.(5 per page x100)2	Ksh. 1,000
Final copies photocopy	4 copies, 100 pgs	@Ksh.(5 per page x100)4	Ksh.2,000
Binding	6 copies	@ Ksh. (1,000 per copy)6	Ksh. 6,000
Project Writing			
statistician's charge	1		Ksh.30,000
Fair copies printing	2 copies, 100 pgs	@ Ksh.(5 per page x100)2	Ksh. 1,000
Final copy printing	4 copies, 100 pgs	@Ksh.(5 per page x100)4	Ksh.2,000
Binding	3 copies	@ Ksh. (1000 per copy)3	Ksh. 3,000
Research Assistants	Pilot - 1 Main - 2	Ksh. 5,000 @ Ksh. 10,000	Ksh. 25,000
Transport cost	1 person for 21 days	@ Ksh 500 x 21 days	Ksh. 10,500
Meals	@200 per day	@200 x 21 days	Ksh. 4,200
Project results dissemination			
Journal publishing		@Ksh. 40,000	Ksh. 40,000
		Sub-total	**Ksh. 149,550**
Contingencies	10%		Ksh. 14,955
		Grand Total	**Ksh. 164,505**

Appendix 9: Directional Map of KNH

Appendix 10: Photo of KNH