PERCEPTIONS AND EXPERIENCES OF RELATIVES WITH PATIENTS IN INTENSIVE CARE UNIT, MACHAKOS LEVEL FIVE HOSPITAL.

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A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS OF SCIENCE DEGREE IN NURSING OF
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DECLARATION AND APPROVAL

Declaration by the Student

I hereby wish to affirm that this is my original project and as such no one has presented it before to any other University for an award or a degree.

Signature…….. **Date…… 23/06/2023……**

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Approval by the Supervisor

I affirm that this project was done under my own supervision by this particular candidate.

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DEDICATION

I would like to dedicate the research to my fellow ICU nurses all over the world, my colleagues at Kathiani Hospital, my parents Mr. and Mrs. Boniface Musyoka, and my children Rickens and Derrick.

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ABSTRACT

Intensive Care Unit (ICU) is considered as a highly specialized department of care within a hospital which offers comprehensive continuous care for patients who are severely ill and are likely to benefit from the management. It is a shocking experience for relatives to have one of their family members in the ICU as most critical ailments occur abruptly without a warning. The patient admitted into the ICU is a part of a family. As such, when one member of the family is afflicted the rest of the family is affected hence the need to provide care that is centered on the family within the ICU. The objectives guiding the study included; To explore relatives' perceptions and experiences of the physical organization of the ML5H ICU, to determine how relatives perceived and experienced care given to their patient, to establish how relatives perceived and experienced their involvement towards care of their patient and to assess the relatives' perceptions and experiences of their emotional support by ICU nurses. The study utilized a cross-sectional analytic design and convenience method of sampling to sample 64 relatives. The data collected was analyzed using bivariate analysis. In the study, females were the majority at 55% (n=35), 43%(n=27) were spouses,45.2% (n=29) had a college level of education, most at 42.2% (n=27), perceived the atmosphere of the unit as fair, most at 93.7% (n=60) perceived the nursing care as good/excellent, majority at 74.6% (n=45) perceived as often/always involved towards caring for their patients and most of them at 73.43% (n=47) perceived the emotional support they received as good/excellent. The study concluded that two thirds of the relatives, 0.54-0.78 at 95% confidence interval had an overall perception of having had a good/excellent experience. A significant association was found between the perceptions of the relatives on the waiting room atmosphere and their overall experience (p=0.038, CI-95%). However, their overall experience was not significantly associated with their perceptions of the atmosphere inside the unit, the nursing care given to their patients, their involvement in the care of their patients and the emotional support they were given by the ICU nurses. The study recommended the hospital management to look into the condition of the ICU waiting facility in liaison with inputs from the relatives. It further recommended that a phenomenological study should be carried out on the same to gain deeper insights into the study.

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ERC : Ethics Research Committee.

ICU : Intensive Care Unit.

ML5H ICU : Machakos Level Five Hospital Intensive Care Unit.

CI : Confidence Interval

CHAPTER ONE

INTRODUCTION

1.1 Study Background.

Intensive Care Unit (ICU) is considered as a highly specialized department of care within a hospital which offers comprehensive continuous care for those patients who are severely ill and are likely to benefit from the management. (Quinn & Redmond (2016). Engstrom, 2016, defined a relative of a critically ill patient as someone who is trusted and relied upon by the patient and have close relationship with the patient. He further defined close relationship as a relationship that has been present for quite a period of time and has shared an understanding of closeness and a characteristic mutual behavior (Engstrom, 2016).

The ICU usually has locked doors. The bright lights, constant noise from the alarms, telephones, staff, ventilators and family increase the tension of the ICU environment. It is a huge step for relatives as they come through its doors. Visitors have to sit and wait in a separate room (McNamara,2013). According to Mselle and Msengi (2020), usually, most ICU patients are victims of motor vehicle accidents, severe burns, falls, drowning and other various medical complications that require fast and highly specialized interventions to reduce the risk of death or developing further complications. These patients also require an atmosphere that is noise free and quiet in order to encourage rest and sleep (Mselle & Msengi,2020).

According to Siddhan, Gupta, Satpathy, Argawala and Lodha in 2019, the development of critical care services in the majority of developing countries are poor or at the stage of infancy. These countries are faced with numerous challenges including infrastructure, technology, intensive care unit personnel and supplies. Noise within the ICU environment is still a problem in most ICUs. It is important for relatives to perceive the

environment where their patient is being cared for as safe, be able to access the bedside of the patient and be able to have facilities that are comfortable available in which they can spend their waiting time. Unfortunately, most settings focus more exclusively on the care of the patient. (Siddhan et al.,2019).

The patient admitted into the ICU is a part of a family. As such, when one member of the family is afflicted the rest of the family is affected hence the need to provide care that is centered on the family within the ICU (Hennenamn & Cardin, 2014). According to Hennenamn and Cardin (2014), provision of family centered care is based on theory of crisis. This theory suggests that the whole should be considered as greater than the total summation of all its parts and that adaptation and resiliency of family members can influence the outcomes of the patient either positively or negatively. Health care workers should aim at providing care for the patients together with their families. Each patient is a member of the larger unit; the family. Family centered care should aim at catering for all family members' needs (Hennenamn & Cardin, 2014). However, the family care concept in which physicians and nurses view family and patients as a unit has not been well established (Lind et k al.,2019). There is less emphasis on interventions for families. Patients autonomy principle requires that health personnel should obtain an informed consent before implementing major interventions. Majority of the patients in the ICU lack the ability to engage in making decisions due to their severe illness and being under sedation hence their family members become their surrogates in decision making. (Mol et al.,2017). Good decisions are those that align the preferences and values of the patients alongside the management that is has a high likelihood of producing an outcome that is wanted by the patient (Lind,2019).

According to Penner & McClement, (2015), it is a shocking experience for relatives to have one of them admitted in the ICU as most severe ailments occur abruptly without a

warning. As a result, families are left feeling helpless and vulnerable. The relatives experience lack of adequate knowledge of their expectations from health care workers or the outcome of their patient. (Penner &McClement, 2015). According to Cypress (2014), admission of one of them to the ICU puts the relatives in a confused state of mind. Consequently, they pay little attention to themselves. Unfortunately, healthcare workers underestimate the needs of relatives and rarely put in efforts to meet those needs wholly (Duran et al., 2014).

According to Hennenamn & Cardin (2014), patients in ICU have life threatening conditions. Their relatives witness them in this crisis. In the process of responding to the crisis, the relatives may experience anxiety and dissatisfaction (Davidson et al., 2014). This alters their role functions and their normal real life. This disruption leads to the relatives' inability to independently meet their own individual needs or the needs of others during this time. Consequently, they need assistance to be able to comprehend and navigate through the ICU environment and clarification of the situation. (Mcfarlin et al., 2017).

According to Convinsky et al, (2017), members of the family are bombarded with thoughts of losing their critically ill loved ones to death. These relatives also experience burdens related to making decisions and choices of treatment for those that they love as they may not be in a suitable state of mind for making decisions for themselves. In the event the relatives suffer from physical and psychological symptoms such as depression and stress which can alter their general wellbeing.

The wellbeing of each family member can be affected by extension to how his/her needs are catered for by the healthcare workers. This research concluded that, in order to prevent eruption of serious implications among these relatives, healthcare workers can

dissipate their concerns aggressively as early as they arise by paying unwavering attention to these relatives (Convinsky et al, 2017).

Unfortunately, staffs prefer to concentrate on the technical and medical factors while avoiding discussions that revolve around emotions and they find it difficult to support relatives emotionally when the relatives' express unpleasant emotions such as anger, denial and hostility as the relatives may have emotional needs that necessitate the need for mental health management (Carlson et al., 2016).

A relative is able to adapt positively to the illness of his or her relative through assistance by the ICU nurses. (McAdam & Puntilo, 2015). Relatives of critically ill patients suffer both mentally and physically and tend to experience increased distress, exhibit lowered immune levels and have been shown to have increased rates of infections of the respiratory tract and they continue to portray signs of lowered immunity years after the death of their loved ones. (Mselle & Msengi, 2020).

1.2 Statement of the Problem

On average, ML5H ICU admits 10 patients a month with general conditions. The relatives are allowed to visit their patients three times a day with each visiting session lasting for one hour. During the visiting times, some relatives use the opportunity to interact with the healthcare workers on the progress of their clients while others stay at their patients' bedside observing them quietly. Some of the relatives spend less time than allocated. They walk away after a few minutes of being by their patients' bedside. Despite the needs of these relatives being explored intensively in literature, there is little published literature on the severely ill patients' relatives' experiences locally and internationally. According to Wagner, (2017), healthcare workers tend to concentrate on the critically ill while neglecting the recognition that the relatives also experience crisis along with their patient and their coping mechanisms become impaired hence the need

to explore the perceptions and experience of these relatives in the unit in order to get an explicit understanding of them and to forge a way forward on the same.

1.3 Purpose of the Study

This study purposed to gain an elaborate insight into how relatives with severely ill patients in the intensive care unit at Machakos Level Five Hospital (ML5H) perceived their experiences in the unit. This would give the healthcare workers an understanding of how relatives create sense of the ICU experience. Understanding the perceptions and experiences would enable the healthcare workers to devise ways on how to support the relatives in the unit. The results would assist the healthcare workers in Machakos ICU in focusing towards the delivery of family centered care.

1.4 Study Objectives.

1.4.1 Broad Objectives

To explore perceptions coupled with experiences of relatives of severely ill patients in ICU at Machakos Level Five Hospital.

1.4.2 Specific Objectives

1. To explore relatives' perceptions and experiences of the physical organization of the ML5H ICU.
2. To determine relatives' perceptions and experiences of the care given to their patient in ML5H ICU.
3. To establish relatives' perceptions and experiences of their involvement in the care of their patient in ML5H ICU
4. To assess the relatives' perceptions and experiences of their emotional support in ML5H ICU.

1.5 Research questions

1. How do the relatives perceive and experience the physical organization of the ML5H ICU?
2. How do these relatives perceive and experience the care given to their patient in ML5H ICU?
3. What are the relative's perceptions and experiences of their involvement in the care of their patient in ML5H ICU?
4. How do these relative perceive and experience the emotional support accorded to them in ML5H ICU?

1.6 Hypothesis

1.6.1 Alternate hypotheses

1. There is a significant association between the perceptions of relatives of the physical organization of the ICU and their experiences in the unit.
2. There is a significant association between the relatives' perceptions of care given to their patients and their experiences in the unit.
3. There is a significant association between relatives' perceptions of their involvement towards care of their patients and their experiences in the unit.
4. There is a significant association between the relatives' perceptions on the emotional support they receive and their experiences in the unit.

1.6.2 Null hypothesis

1. There is no significant association between the perceptions of relatives of the physical organization of the ICU and their experiences in the unit.
2. There is no significant association between the relatives' perceptions of care given to their patients and their experiences in the unit.

3. There is no significant association between relatives' perceptions of their involvement towards care of their patients and their experiences in the unit.
4. There is no significant association between the relatives' perceptions on the emotional support they receive and their experiences in the unit.

1.7 Study Justification

According to Wagner, (2017), healthcare workers tend to concentrate on the critically ill while neglecting the recognition that relatives also experience crisis along with their patient. As a result, their coping mechanisms become impaired. On the other hand, if the relatives have the ability to cope with the situation themselves, they can offer critical support in the process of ICU patients recovery both psycho-socially as well as the physically. Research has shown that about 50% of these relatives usually experience anxiety or emotional distress for about two years after the relative has been discharged from the hospital. Consequently, their lifestyle and quality of life is affected. Nurses should aim at offering immediate and effective support to the relatives to improve their coping skills and to adjust well to their patients' illness (Malliarou et al., 2014).

1.8 Study Limitation

The study was limited by relying upon the Likert scale to determine the perceptions and the overall experience of the participants. This was limiting as the overall experience was determined purely by individual's perceptions and different individuals are likely to have varied understanding of that which they deem as excellent or good or fair or poor. E.g. one participant may consider a nurses' skills to be excellent while another may perceive the same skills of the same nurse as good or fair.

1.9 Study Delimitation

The questionnaire was developed comprehensively based on the Consumer Quality Index for Members of the Family in the Intensive Care Unit developed by NIVEL in 2013. The

study analyzed a participant's overall experience based on individual's socio demographic characteristics besides individual's perception.

1.10 Operational definition of Key Terms

Critically ill patient: it refers to that patient that has been admitted to the ICU due to conditions that threaten life and as a result requires a highly vigilant and intense professional care. (Mselle & Msengi,2020).

Experience: Is the happenings around you that influence your feelings. (English dictionary).

ICU: Intensive Care Unit (ICU) as a highly specialized department of care in a hospital which offers comprehensive continuous care for patients who are severely ill and are likely to benefit from the management. (Quinn & Redmond ,2016).

Perception: It is the view a relative has regarding the services that he/she has witnessed being given to his/her patient or herself/himself (Gishu et al.,2017).

Relative: A relative of a critically ill patient is someone who is trusted and relied upon by the patient and have close relationship with the patient for quite a period of time and has shared an understanding of closeness and a characteristic mutual behavior. (Engstrom, 2016).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter contains different reviews centered on the objectives of the study. The chapter also, is consisted of the theoretical framework and conceptual framework. It was arranged into different sub-sections as follows: theoretical framework, empirical literature and gaps in the research area. Those parameters that were measured in this project were elaborated on conceptualization then later, a conceptual framework was used in summarization. Through the review, contributions made previously were able to be understood. The chapter further examined the literature which offered guidance to the solutions towards the study problem.

2.1 Theoretical Framework

2.1.1 Adaptation Theory

In this study the theory utilized was Sister Callista Roy's adaptation model. The model consists of four domains; the individual, health, the environment and nursing. According to Callista, the individual is an open and adaptive system using skills to cope with stressors. She describes the environment as the circumstances, influences and conditions surrounding and affecting a person's development and behavior. These stressors are stimuli influencing a person's ability of coping with environment. The stimuli could be focal (confronting the person in a particular context immediately such as needs of the family, changes among the members of the family as well as adaptation level of the family). The stimuli could be contextual stemming from other stressors influencing the situation. The stimuli could be residual such that their influence on the individual is not well known such as a person's attitudes and beliefs. (McAdam & Puntilo, 2015).

When the stimuli are within a person's or family capacity to adapt, then adaptation takes place. Adaptation can be compensatory or compromised depending on the regulator characteristics and those of the cognator. The physiological coping mechanisms of the individual is referred to as the regulator whereas cognator refers to an individual's mental coping mechanism. (McAdam & Puntilo, 2015). Critical illness of a loved one disrupts the normal life, roles and functions of members of the family. This requires the members of this family to adjust according to that situation resulting into adaptation to the illness. This adaptation could be positive or negative.

A relative is able to adapt positively to the illness of his or her relative through assistance by the ICU nurses whereby they provide sufficient information concerning the status of the patient, the management as well as the prognosis in a clear, honest and understandable manner, counselling and sensitivity of the nurses to the relatives' needs and being allowed to get closer to their patient and participate in the care. Negative adaptation is likely to occur if the relatives' needs are ignored and taken for granted by the ICU nurses. The adaptation could also be complete or incomplete based on the happenings of the period of adjustment. Complete adjustment means that the relative has come to total acceptance and comprehension of the illness of his or her relative. In incomplete adjustment the relative has not fully accepted and comprehended the illness of his or her patient. When the condition of the patient changes, the entire process comes into play again since family members have to adapt to the changes.

Holistic nursing should aim at promoting the adaptation of the family. The nurse should asses the family to establish any signs of maladaptation. Based on the findings of the assessment, the nurse should focus on the stimuli that is influencing the maladaptive outcome of the family. The nurse then manipulates the immediate environment with an aim of promoting positive adaptation. It is essential to identify the different types of

stimuli so as to be in position of confronting and addressing every aspect of the family's needs. (Hennenamn & Cardin, 2014).

2.2 Empirical Literature

2.2.1 Relative's Perceptions and Experiences of the ICU physical Organization

An intensive care unit has unique challenges such as psychosocial and physical barriers which may hinder the family's inclusion in the care of the patient. (Cypress, 2014). The barriers include but not limited to monitors on the side of the beds, machines like ventilators and dialyzers, infusion pumps and tubing. In addition, the environment of the ICU has a multitude of equipment that are unfamiliar, smells, sounds, other patients and staffs that increase stress levels among relatives.

According to Siddhan, Gupta, Satpathy, Argawala and Lodha in 2019, the development of critical care services in the majority of developing countries are poor or at the stage of infancy. These countries are faced with numerous challenges including infrastructure, technology, intensive care unit personnel and supplies. Noise within the ICU environment is still a problem in most ICUs. It is important for relatives to perceive the environment where their patient is being cared for as safe, be able to access the bedside of the patient and be able to have facilities that are comfortable available in which they can spend their waiting time. Unfortunately, most settings focus more exclusively on the care of the patient. (Siddhan et al.,2019).

In a similar study conducted by Mol, Bakker, Njikamp & Kompanje (2017), in Netherlands, there was no significant association between the element of nuisance in the unit and the relatives' perception of quality care. This was contrary to those of Siddhan et al., (2019) in North India where relatives expressed noise within the environment as a problem in the ICUs.

The ICU usually has locked doors. The bright lights, constant noise from the alarms, telephones, staff, ventilators and family increase the tension of the ICU environment. It is a huge step for relatives as they come through its doors. Visitors have to sit and wait in a separate room (McNamara,2013). A similar study done by Scott, Thomson & Sherpherd in 2019 in the United Kingdom, showed that families were more satisfied when offered information concerning the environment of the ICU and the equipment through either discussing with the staff or leaflets.

In another study conducted by Mol, Bakker, Njikamp & Kompanje (2017), in Netherlands, it showed that most relatives found the waiting room to be comfortable. They valued having a place they could wait that was close to the ICU. They also met other visitors while waiting. They were able to relate with the emotions of other visitors as they had experienced them too or were going through the same. These results were contrary to those of a similar study done by Scott et al., (2019) that elicited that 1% of the relatives were satisfied with the waiting room and 0.4% were satisfied with the patient's room. In that study the relatives felt that the room was too small to accommodate a number of visitors and made a recommendation for the improvement of relatives' facilities (Scott et al.,2019). The same sentiments were echoed by relatives in a study done by Haave, Baakke & Schroder., (2021), in Norway where they felt least satisfied with the waiting room atmosphere as they perceived the waiting time in that room as stressful as they preferred to be with the patient.

In a similar study done by Kohi, Obogo, & Mselle (2016), in Tanzania relatives were least satisfied with the ICU environment ass the ICU did not have a waiting room for the relatives. These findings related to others of an equivalent study done in Ethiopia by Kehali, Berhne and Cuthil in 2020, the relatives termed the ICU environment as unfriendly and wished to have a waiting room with a couch, clean toilet and a family

room where they could rest at night, pray, eat and meet. Relatives developed physical ailments such as backache due to lack of comfortable waiting facilities. (Kehali et al, 2020).

A similar study done by Maina, Kimani and Omuga in 2018, established that policies on visitation had an impact on the patients' outcome and satisfaction among the relatives. The study reviewed 22 studies on intensive care units' policies of visitation in Iran. The review showed that it is essential to have an open ICU visiting strategy for both the patient and the relatives.

2.2.2 Relatives' Perceptions and experiences of the Care Given to their Patients

In a study done by Lakanmaa, Suominem and Castren in 2015, ICU nurses rated their clinical competence in relation to the care of the patient as good as well as their knowledge, experiences and skills. The nurses had the highest level of competence in the nursing care principles which include ethics, safety, assessment and management of pain, skin conditions, abnormal vital signs and fluid therapy. The concept of competence is quite multi-dimensional ranging from the nursing process to the collaboration, ethics and leadership with strong relations to the experience, age and how frequently a certain skill is applied (Lakanmaa et al.,2015).

In an equivalent study by Scot et al., (2019), relatives of critically ill patients felt that the care their relative received was highly satisfactory more so with the competence and skills aspects of the staff and respect accorded to their patient. However, the relatives were less satisfied with how the care was coordinated and some of them were dissatisfied by the lack of regular meetings due to unavailability of the medical staff. These findings were similar to those of Mselle and Msengi (2020), where the relatives perceived the quality of care given to their patients as inadequate due to failure of the health care personnel to properly coordinate the care of their patients and as a result, the relatives

became frustrated. They also experienced confusion when their patients' condition deteriorated and there was no continuity of care from the nurses. They were dissatisfied with how the care was organized. Several studies have shown that relatives perceive improvement in the quality of care when there is a collaboration between health personnel and relatives in making decisions and sharing knowledge. (Mselle & Msengi, 2020).

In a similar study done in Kenyatta Referral hospital, Kenya by Maina et al., (2018) most of the participants acknowledged ICU nurses were dedicated in their work and appreciated them for their wonderful performance. In another study by Haave et al., (2021), relatives were highly satisfied with how the ICU nurses assessed and managed the symptoms of their patients. A similar study by Carlson, Spain & Montez., (2016) in United States showed that relatives rated highly the skills as well as the competence portrayed by the ICU nurses.

In another study done by Gishu, Weldesadik and Teweab in 2019 in Ethiopia, majority of the relatives perceived lowly the quality of the nursing care offered there. How relatives perceive the care given to their patients influence their trust and how they utilize the services in the unit. As such, administrators of hospitals and unit in charges should maximize on those efforts that are geared towards increasing patients as well as relatives' high perceptions of the nursing care quality. (Gishu et al.,2019).

According to Son, Lee and Park in 2015, due to the fast changes in the health sector, ICU nurses are required to offer highly effective and safe care based on their technical operations and knowledge. ICU nurses are expected to assess the life threatening conditions of patients and to come up with a safe implementation plan based on evidence and to offer timely interventions. ICU nurses are considered as the biggest group of professionals working in ICU. They are highly skilled and trained to benefit both the

patient and the relatives. Their level of competence significantly influences the patients' outcome both psychologically and physiologically. (Son et al.,2015). They have to integrate technology with the psychosocial issues and conflicts of ethics that come alongside critical illnesses. These ICU nurses have to promote the safety of their patients, work towards improving the clinical outcomes of their patients, reducing the mortality and morbidity of patients and reducing complications in the management of the patients. (Son et al.,2015).

According to Alfieri, Mori & Barbui, (2017), nurses are able to become experts in their competence by using procedures, guidelines and protocols. The skills of nurses in caring for the patient are developed over time by a combination of numerous experiences and academic training. As such a nurse graduate working in ICU is not necessarily fully equipped as a result of inadequate skills and knowledge. Hence the need for training continuously as ICU nurses in order to become highly competent (Alfieri et al.,2017).

In a similar study done by Wagner (2017), relatives felt that their patients suffered over their course of their management. In the same study, 52% of the relatives felt that their loved one was not given emotional support, 20% felt that their client was not treated respectfully, 38% felt that there was no emotional support offered to the family and 50% felt that the information received concerning the management and prognosis of their patient was insufficient (Wagner,2017).

2.2.3 Perceptions and experiences of Relatives Involvement in their Patients' Care.

According to Fast, (2017) involvement **o**f families in their patient care can be described as either "hands off" or "hands on". He further described care that is hands on as the relatives assisting their patients in doing those activities performed daily to include feeding as well as bathing the patient. He described care that is hands off as the care relatives provide by influencing indirectly the care their patients receive in the unit

through interacting with the health care team and making suggestions that would improve their patient's care.

The physical space of most units and the hyper vigilant type of work carried out in these units deter personal connection with the relatives and patients (Engstrom, 2016). In an equivalent study conducted by Fateel et al., (2015), in Bahrain, it is the desire of relatives to be close to those that they love when severely ill as well as offering their care towards them. This helps the relatives to maintain cohesiveness and the bonding within the family and prepares them on how to assist their patient once discharged from the unit.

Despite this desire, most of those that were part of the study had a feeling that ICU nurses ignored them besides treating them as non-existent and that the nurses were hesitant to reveal the condition of their patients. Those participants who were involved towards the care of their patients experienced a higher level of satisfaction in their experience within the unit (Fateel et al.,2015).

These findings resonated with those of Maina, Kimani and Omuga in 2018, whereby despite relatives showing willingness to actively participate in the care of their patient, nurses were reluctant to involve them. The nurses cited the need for policies to guide relative involvement outlining clearly the extent to which they should get involved. In the same study, (Maina et al., 2018), 35.5% of the relatives wished to participate in receiving in-depth information about patient care,13.5% wanted to be involved in giving bed bath and dressing and 1.9 % wished to attend to the elimination needs of the patient. Most of the participants in that study felt that the reason as to why they were not involved in the general activities of care for their patient was because it is involving to care for a patient who is critically ill and as such the relatives did not possess the skills and the knowledge required. Nevertheless, the relatives in that study were satisfied with how they were engaged towards the care of their patients (Maina et al., 2018).

In a similar study by Mselle and Msengi (2020), relatives felt that despite their availability and their desire for involvement, little effort was made by health care personnel to involve them. Including relatives in the formulation of interventions for the patient can ensure that the relatives do not develop negative feelings later (Mselle & Msengi,2020). Further, Scott et al., 2019, noted a significant improvement in satisfaction among relatives when they were encouraged to provide assistance in their patients' care. Increasing ways of involving relatives in the care of their patients will improve their overall satisfaction as the closer they get to their patients to assist in their care the more oriented they become and this helps to allay their anxiety. (Carlson et al.,2015).

According to Maina et al., (2018), most of the relatives felt that they were given partial information by the ICU nurses concerning the condition and the care of their patients. This lack of adequate information was cited as a major barrier for the relatives to provide care for their loved one in the unit and at home once discharged. The study cited that the reasons as to why nurses failed to provide in depth explanations was due to minimal interaction of the ICU nurses and the families and the thought that such information would overburden the relatives. Since nurses have a close constant contact with the relatives, they are in an ideal position to cater for the assurance and information needs of relatives (Maina et al.,2018).

However, according to a study done by Scott., (2019), their lack of confidence to provide information stems from the fear of giving incorrect information or inability to answer questions adequately. This lack of confidence among the nurses is thought to be due to the nurses believe that they are underprepared educationally or insufficiently qualified in giving the required level of information (Scott et al.,2019).

A similar study done by Penner and McClement in 2015, relatives cited receiving of information that was contradictory, poor communication and poor support as some of the

challenges that they encountered. These challenges in turn contributed to depression and anxiety among relatives.

In a similar study done by Bailey, Sabbagh, Loisellle & Boileau (2016), in Canada, they noted that there was a significant association between the informational support relatives received and their overall satisfaction in the unit. Mol et al., (2014) in a similar study established that relatives perceived communication as one of the vital factors in their perception of the quality care that their patients received.

These sentiments were echoed in a similar study by Scott et al.,2019 in the United Kingdom whereby relatives expressed less satisfaction with the consistency of the information that they were given by the ICU nurses. The factors as to why relatives experienced less satisfaction with information and communication were attributed to the information being complex and unfamiliar, language barrier and low level of education (Carlson et al., 2016).

Patients autonomy principle requires that health personnel should obtain an informed consent before implementing major interventions (Lind, 2019). Majority of the patients in the ICU do not have the ability to take part in decisions concerning their care due to their severe illness as well as being under sedation hence their family members become their surrogates in decision making. (Mol et al.,2017). Good decisions are those that align the preferences and values of the patients alongside management that has a high likelihood of producing an outcome that is desired by the patient (Lind et al.,2019). Elsewhere, some relatives felt that they were made to sign consent or decide urgently without adequate information concerning the situation. As such they were in a state of dilemma thinking that they could have consented against their patients' interest or physician's.it has been shown that that relatives are afraid of deciding due to anxiety and more so when it is an emergency (Kehali et al., 2020). For these relatives to play this role

effectively, there is need for a proper communication channel that should be initiated as soon as the patient has been hospitalized (Mol et al., 2017).

According to Gishu et al.,2017, in a similar study, the relatives felt that their involvement in making decisions was limited. Some doctors and nurses spare the relatives in making decisions concerning the patient so as to protect them from feelings of having played a role in the death of their patient (Gishu et al.,2017). On the contrary, in another related study in Ethiopia, most relatives felt totally satisfied with their experience in decision making (Kehali et al., 2020). However, in some countries like Norway, decision making by relatives is legally limited with the physician been given the legal responsibility to make the final decision. Decisions are based on ethical standards like having respect to those patients that have an advance directive. (Lind et al.,2019).

According to Scott et al., (2019), the families cited the need for improved communication with the health care professionals and timely, up-to-date accurate information concerning their relative's change of condition. They expressed greater satisfaction when given clear and honest information in a manner they could understand. This made them to participate actively in making decisions for their patient. The same study also established that the most important factor contributing to satisfaction of relatives was giving them information that was complete. The study further concluded that provision of high quality information in various ways ensures that relatives comprehend their relative's condition, diagnosis, benefits and risks of treatment and prognosis. This understanding is vital for relatives to cope as surrogate decision makers. (Scott et al., 2016).

Davidson et al., (2014), recommended consistency in the physician and nursing personnel attending to a particular patient in order to improve relative's satisfaction and allowing relatives to take part in decision making as there was a 50% reduction in anxiety

among family members who were incorporated in conferences. Incorporation of conferences for families improved communication and alleviated depression, anxiety as well as post-traumatic stress disorder. (Hennenamn & Cardin, 2014). These findings were echoed by Scott et al., (2019), where a significant increase in satisfaction and a marked reduction in anxiety were noted when relatives were provided with oral and written information by both the nurses and the medical staff. This was attributed to provision of good knowledge concerning the patient's medical condition together with the treatment which was done daily by attending family meetings or by phone. The meetings or phone calls enabled the families to ask questions and receive answers, to get up to date information and support when difficult decisions had to be made. (Scott et al., 2016).

According to Quinn and Redmond, (2016), relatives of patients who are very sick have needs that range widely. These relatives' five major needs include; support, comfort, information, proximity and assurance. Quinn and Redmond (2016), further elaborated these needs as; need for support as having access to support systems and resources for the relatives; need for comfort is at a personal level of the relatives and it includes things like a comfortable waiting area and food; need for information is defined as the need for relatives to be updated on the patient's condition in a manner that is clear, straight and honest; need for proximity is explained as the need for the relatives to be close to their patients and to be allowed to visit the patient often.

Relatives need assurance that the care being given to their patient is of quality. They need hope that their patient will get better. (Quinn & Redmond., 2016). According to a study done by Cypress (2014), nurses underestimate relative's needs. This underestimation of their needs leads to an environment that is filled with depression and anxiety. Healthcare providers on the other cited challenges in providing family centered

cared that is inclusive of the relatives. The healthcare providers felt that a lot of time was required to respond to all the questions that relatives have, that some requests from the relatives are unreasonable, that families get on their way and observe and question skills performed, and families are likely to miscomprehend information discussed during rounds. (Cypress, 2014).

2.2.4 Perceptions and Experiences of Relatives' Emotional Support in the ICU

Members of the patients' family, play an important role towards alleviating the psychological distress of their patients admitted in ICU by providing a caring and familiar presence. (Bailey et al., 2016). When their psychological needs are compromised, the relatives suffer from depression, anxiety as well as post-traumatic stress disorder. Alteration in their psychological stability leads to compromised support to their patients. (Bailey et al., 2016). These findings agreed to those of Malliarou et al., (2014), where relatives' ability to adjust and offer their patients' support can affect the recovery of the patient hence nurses should aim at offering immediate and effective emotional support to the relatives to improve their coping skills and to adjust well to their patients' illness.

Carlson et al., (2016), in a similar study noted that relatives expressed low satisfaction with emotional support received due to their emotional needs being high as a result of increased distress from various factors such as the risk of death of their loved one and financial problems due to the medical bills and loss of income if the patient was the bread winner. He further noted, that staffs preferred to concentrate on the technical and medical factors while avoiding discussions that revolved around emotions and that staffs found it difficult to support relatives emotionally when the relatives expressed unpleasant emotions such as anger, denial and hostility as the relatives may have emotional needs that necessitated the need for mental health management. (Carlson et al., 2016).

Similarly, Kohi et al., (2016), echoed the same sentiments where nurses made an admission that they lacked enough time to give considerable attention to the emotional needs of the relatives as they were busy prioritizing the needs of the patients. Relatives felt as if they had been left to themselves, isolated with no care from the health personnel who seemed uninterested in them. Several studies have shown that there is inadequate knowledge among health personnel regarding what these relatives undergo when one of their family member is hospitalized (Rosernberg et al., 2016).

Furthermore, Leske et al., (2013), established that these relatives of critically ill patients had the situation constantly in their minds and they kept thinking about how the rest of the family members were managing it. The study further found that the everyday life of the relatives changed in several ways. The relatives suffered from difficulties in sleeping and rarely got hungry. They felt they lacked the strength to take responsibility of all things at home. The uncertainties of the outcome of the illness led to the relatives to feel insecure about the family's future. In the same study, relatives felt frustrated about receiving different orders such as a change in the treatment plan of their patient. The situation was made worse by having to wait for long time to get information.

These findings were echoed by those of Maina et al., (2018), whereby the relatives experienced distressing emotions and some reported concentrating poorly in their working areas and a reduction in their productivity. The same findings were reported in a review study done by Scott, 2016, whereby relatives expressed less satisfaction with the emotional support they received and 50% of them continued to experience anxiety and distressed emotions for a period of two years upon leaving the hospital and this tended to influence their lifestyle and consequently their life's quality. This study suggested that the measurement of quality care in the ICU should put into consideration

the perspective of the relatives and their satisfaction for the improvement of the psychological well-being of the relatives (Scott et al., 2016).

Relatives of critically ill patients have been reported to experience remarkable anxiety and depression (Convisky,2016). A similar study done by Blom, Gustavson and Sundler in 2013, recommended the family be supported by a multidisciplinary team including the clergy, the social workers, medicine, nursing and family support groups in order to improve their experience. This was echoed by another similar study done by McAdam et al., (2015) who found that there was a 50% reduction in anxiety among family members attending support groups. Donnelly S and Dickson M, (2015), did a study that showed that nurses' sensitivity to families' spiritual needs was highly valued: respecting the religious practice of the patient, understanding the faith background, contacting a priest and presence of a chaplain.

According to Penner & McClement, (2015), it is a shocking experience for relatives to have one of their members admitted to ICU as most severe ailments occur abruptly without a warning. As a result, families are left feeling helpless and vulnerable. The relatives experience lack of adequate knowledge of their expectations from health care workers or the outcome of their patient. (Penner & McClement, 2015). According to Cypress (2014), admission of one of them to the ICU puts the relatives in a confused state of mind. Consequently, they pay little attention to themselves. Unfortunately, healthcare workers underestimate the needs of relatives and rarely put in efforts to meet those needs wholly. (Duran, 2014).

According to Hennenamn & Cardin (2014), patients in ICU have life threatening conditions. Their relatives witness them in this crisis. In the process of responding to the crisis, the relatives may experience anxiety and dissatisfaction (Davidson et al., 2014). This alters their role functions and their normal real life. This disruption leads to the

relatives' inability to independently meet their own individual needs or the needs of others during this time. Consequently, they need assistance to be able to comprehend and navigate through the ICU environment and clarification of the situation. (Convisky, 2016).

2.3 Conceptual Framework

Conceptual framework is a representation of how the different variables associate with each other and its usually presented in a diagram. This representation enables the researcher including other people reading the research to easily comprehend the relationship among various variables (Orodho, 2006).

The conceptual framework outlines the operational study variables besides linking the theoretical framework to the variables under study. The independent variables include: Perceptions of the physical Organization of the Ml5h ICU, Perceptions of care given to their patient, Perceptions of involvement and Perceptions of emotional support. The dependent variable is the overall experience of the relatives in the unit as either excellent/good, fair or poor.

The following image represented the study's conceptual framework.

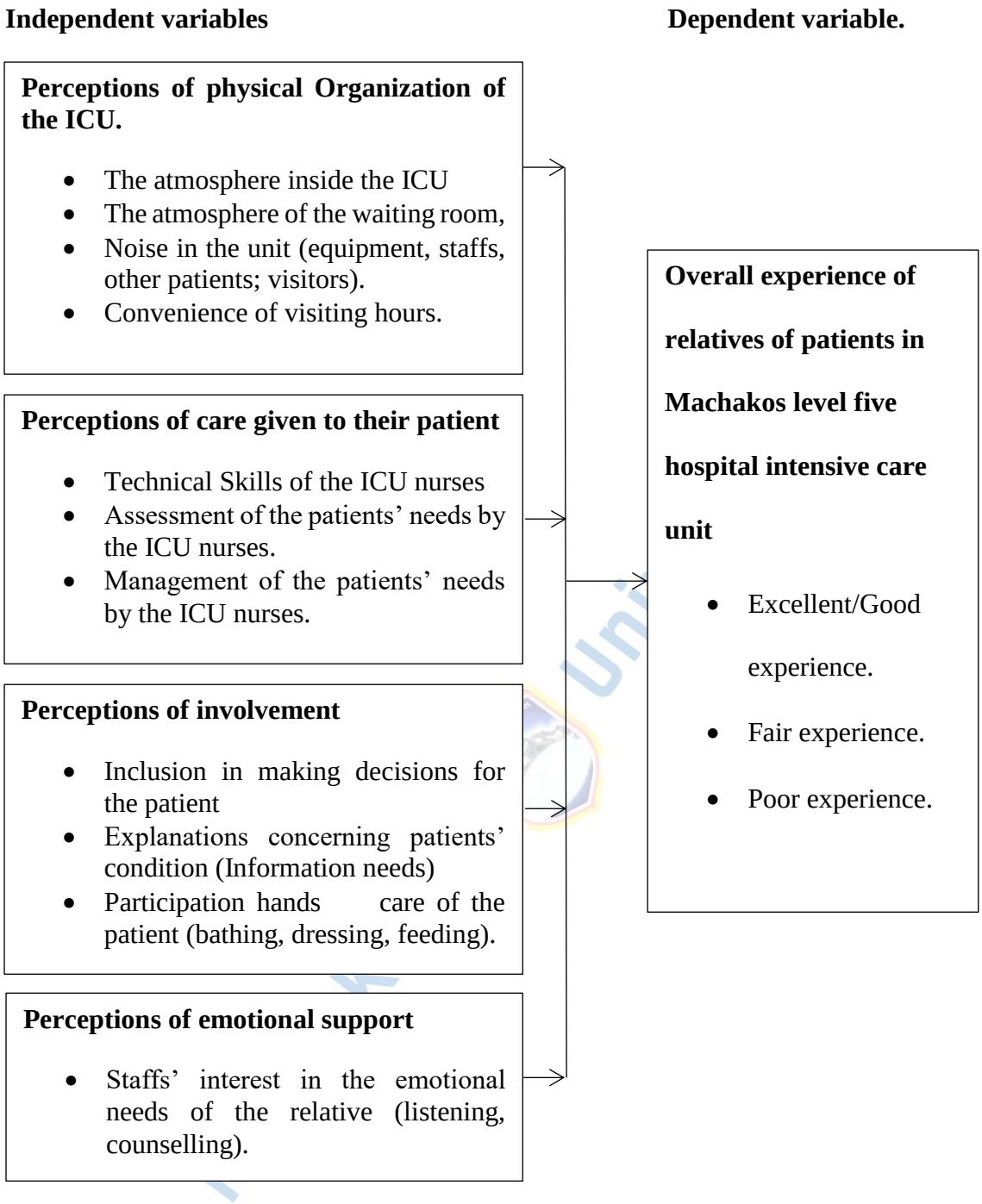


Figure 1: Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This section elaborated the approach, study site alongside the population included in the study. The approaches used in sampling and the research methods utilized were discussed together with how the research instruments were developed.

3.1 Study Design

Research design is used to infer to methods and means applied by a researcher in the process of consolidating various elements in research logically to assist in handling the problem under investigation (Denscombe, 2016). The study utilized a cross-sectional analytic design as it was conducted at one point in time to test hypotheses. A self-administered questionnaire was used to gather quantitative data. It was the most appropriate approach since it assisted in the establishment of the association between variables and because it is also a suggested research methodology in the field of nursing (Sekaran,2010). The major advantage of this strategy is that it allows the researcher to concentrate on a single instance or circumstance while identifying or attempting to identify the different interacting processes that are taking place in that context.

3.2 Study Setting

This study was carried out in Machakos Level Five Hospital Intensive Care Unit. This ICU is situated close to the casualty department, theatre and radiology department. It receives patients from within the hospital, the neighboring Makueni, Kitui and Mwingi sub counties. It also serves patients from the neighboring private hospitals which include; Bishop Kioko and Shalom community hospital. It refers its patients to Kenyatta National Hospital.

Currently, the unit has twenty Kenya registered critical care nurses, two anaestheologists, two medical officers, four physiotherapists and one nutritionist. It has a bed capacity of 15 beds. It serves as a general ward admitting surgical, medical, obstetric and paediatric cases. Conditions most commonly found in the unit include; multiple injuries secondary to road traffic accident or assault, traumatic brain injury, multiple organ failure and poor reversal secondary to general anesthesia. The unit also doubles up as a training unit receiving students from various training institutions.

3.3 Target population

An element of a population was defined as an individual participant or object on which a measurement was being executed (Schindler & Cooper.,2006). The study targeted all relatives visiting their patients in the unit. Engstrom, 2016, defined a relative of a critically ill patient as someone who is trusted and relied upon by the patient and have close relationship with the patient. He further defined close relationship as a relationship that has been present for quite a period of time and has shared an understanding of closeness and a characteristic mutual behavior. (Engstrom, 2016).

3.4 Study population

This comprised of an average of eight relatives per patient. Estimated sample was eight times ten to give a total of eighty relatives.

3.5 Selection Criteria.

The study selected the first eight family members per patient who met the inclusion criteria.

3.5.1 Inclusion criteria

This study included those relatives aged eighteen years and above who spent an average of four hours a week with their patient in the unit and willingly consented to the study.

3.5.2 Exclusion criteria

The study excluded all relatives who were unwell during the period of the study.

3.6 Sampling method

The study utilized convenience sampling method to sample all relatives visiting their patients within the duration of the study.

3.7 Sample size calculation.

Fischer et al., 1998 formula was used to determine the sample size as follows'

$$n=\frac{z^2\, p(1-p)}{d^2}$$

whereby;

z was the value for the corresponding level of confidence which is 1.96 for confidence at 95%.

d as the error margin which is 0.05=±5%.

P is the estimated value for a proportion of the sample that has the condition of interest which is taken at 50% which is the most conservative estimate.

$$n=\frac{1.96^2\, 0.5(1-0.5)}{0.05^2}=384$$

That sample size was further adjusted by use of Yamane (1967) formula for sample size of populations less than 10,000.

$$nf=\frac{n}{1+\frac{n}{N}}$$

Where:

nf is the desired sample size;

n is the calculated sample size which was 384

N is the estimated population under study which was an average of 80 relatives.

$$nf = \frac{384}{1+\frac{384}{80}} = 64$$

Hence the sample size was 64 relatives.

3.8 Data Collection Procedures.

3.8.1 Data collection instrument

The study utilized a self-administered questionnaire which was a modification of the Consumer Quality Index for Family Members in the Intensive Care Unit developed by NIVEL in 2013. The questionnaire contained simple and clear questions. The first part of the questionnaire contained simple open ended questions that were used to determine the socio demographic characteristics of the respondents. The other parts of the questionnaire contained Likert Scale questions with a score of 1 to 4 in order to assess perceptions of the relatives on the physical organization of the unit, care given to their patients, their involvement in the care and the support offered to them in the unit.

3.8.2 Pre testing

Orodho (2012) advised that a trial run with the research instruments that were intended for use in the project would be necessary in order to ascertain their functionality besides their reliability.

The questionnaire was pretested at Thika level five hospital ICU using 10% of the study sample size which was 7 participants. Through this pretest, questions that were ambiguous and seen as a repetition were removed and others that were not easily understandable were paraphrased to the understanding of the respondents. This was done in order to ensure the tool's reliability and validity before the actual data collection.

3.8.3 Validity of Findings

Validity is a technique for quality aimed at determining if the tool is able to measure whatever it is supposed to measure. Results obtained should be consistent each time the tool is applied. By so doing, any study tool is able to be validated. (Gay and Airasian (2000). The researcher engaged the expertise of various experts alongside the lecturers in viewing of the tool to establish its validity as well as reliability. The filled questionnaires, for piloting were checked thoroughly in order to ascertain that the difficulties experienced during comprehending and giving answers to all of the questions on the questionnaire were minimal. Based on the outcome of the piloting study, modifications were made to those instructions or questions that appeared vague besides establishing the required time for the completion of the questionnaires.

3.8.4 Data collection process

Permission was sought from Machakos Level Five Hospital ethics and research committee. Then the staffs working in the unit were approached to familiarize them on the study. Two research assistants were identified from Machakos Kenya Medical Training College who were students doing their clinical placement in the unit and were coached to assist in the sampling of the relatives and distribution of the questionnaires. Relatives were approached during the visiting hours in the waiting bay and were requested to take part in the study after being familiarized with it. Those that consented and were over 18 years old were given the questionnaires to fill in the language they understood most between Kiswahili and English. Sampling of these relatives continued up to the achievement of the required sample size of 64. The researcher and the assistants remained available throughout the process guiding and interpreting the questions to the understanding of the respondents. None of the sampled participants dropped out of the study.

3.8.5 Data cleaning and storage.

The filled questionnaires were handled by the researcher together with the research assistants and stored by the principal researcher. The data collected was sorted as per codes, then cleaned and checked for completeness before analysis. This was done in order to avoid taking incomplete data and mistakes for analysis.

3.8.6 Data analysis and presentation of results

The questionnaires were checked for completeness prior to analysis. The respondents were given sentiments with a score of 1 to 3 (1 being the lowest and 3 the highest score) to each Likert item on the questionnaire to measure their perceptions and experience. The cell range was calculated to be 0.67. Hence, a mean sentiment score of 0-0.67 was considered poor, 1.68-2.32 was considered fair. 2.33-3.0 was considered good /excellent. The data obtained was represented in tables, pie charts and histograms. Data obtained was summarized using a mean sentiment score for easy interpretation. The data was also entered into Ms excel and subjected to bivariate analysis.

3.9 Ethical Considerations

Permission was obtained from the Mount Kenya University ethical research committee. A letter of approval was then obtained from the NACOSTI and the ethics and research committee of Machakos level Five Hospital. The participants were aged eighteen years and above. Only those relatives who consented to the study were included. Confidentiality was maintained by use of serial numbers for the questionnaires instead of names of the respondents. The respondents participated voluntarily and they were free to withdraw at any point of the study.

It was ethical for both the researcher and the responder to be truthful throughout the course of the study. In her last statement, the investigator expressed her own personal interest in the research she was about to embark upon.

The researcher acknowledged all of the studies that she cited in her study.

The respondents were given time to first read comprehensively a consent form and then sign before commencing with the filling of the questionnaires.

In addition, no participant suffered any damage as the study was totally non-invasive. The confidentiality of the respondents was maintained throughout the data collection period by avoiding to write or disclose their identity or that of their patients on the questionnaire forms. The data gathered was protected fully by the researcher to ensure that it did not get into the hands of recipients not intended apart from the lecturers supervising the research and the specialists of data who were engaged in the research.

The participants were allocated numerical numbers on the questionnaire forms to allow easy analysis and interpretation of the data.

To guarantee work that was clean and without plagiarism, the composed report was always uploaded into the TURNITIN software prior to any defense. The researcher ensured that the index of similarity remained less than 20%.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.0 Introduction

This section presents the findings of the study on perceptions and experiences of relatives of critically ill patients in Machakos Level Five Hospital ICU. The findings and discussions are presented on a chronological order according to the objectives;

i. To explore relatives' perceptions and experiences on the ML5H ICU environment.
ii. To determine relatives' perceptions and experiences of the care given to their patient in ML5H ICU.
iii. To establish relatives' perceptions and experiences of their involvement towards the care of their patient in ML5H ICU
iv. To assess the relatives' perceptions and experiences of their emotional support in ML5H ICU.

4.1 Questionnaire Response Rate

A sum total of 64 questionnaires were handed over to the respondents based on the sample size calculated. All the 64 questionnaires were fit for subjection to data analysis. This was a commendable rate of response as it was at 100%. This rate of response qualified for data analysis as data analysis should be carried out if a minimum of 50% questionnaires that were filled are available (Babbie.,2007).

the collected data was analysed and results presented in alignment with the objectives of the study as highlighted in the subsequent sub headings.

4.2 Data Presentation

4.2.1 Relatives Socio-demographic data

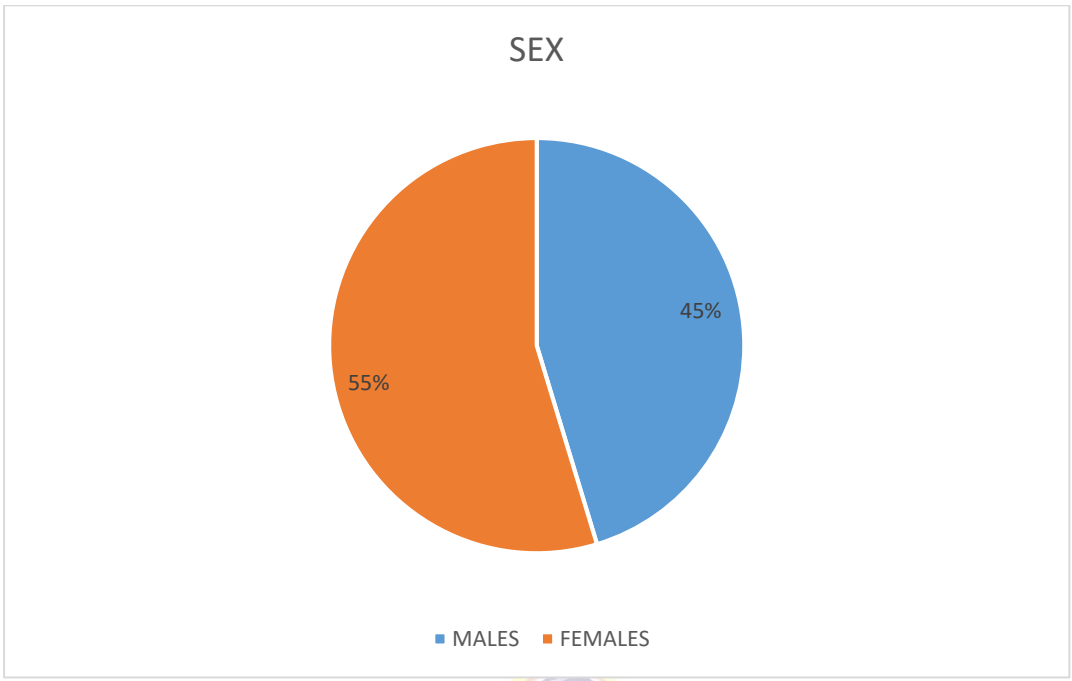


Figure 2: Respondents' gender

Source: Field Data (2021)

According to the pie chart in figure 2, females were the majority of the participants at 55% (n=35) compared to men who were at 45% (n=29).

Table 1: Age of the respondents.

Age	Freq.	Percent.	Cumulative.
18-34 years	40	62.50	62.50
35-44 years	12	18.75	81.25
45-54 years	8	12.50	93.75
55-64 years	4	6.25	100.00
Total	64	100.00	

Source: Field Data (2021)

As per table 1, 62.50% (n=40), majority of the relatives fell within the age bracket of 18-34years, followed by those aged 35-44 years at 18.75% (n=12), then those aged 45-54 years of age at 12.50% (n=8) and the least were those between the ages of 55-64 years at 4%.

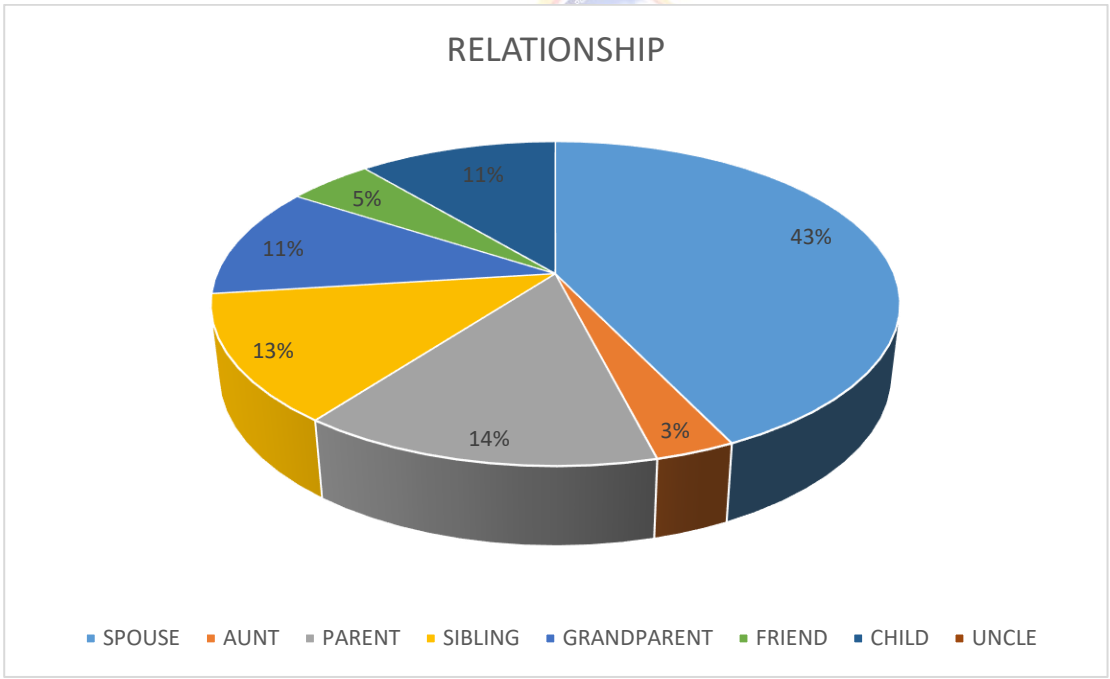


Figure 3: Relationship of the respondent to the patient.

Source: Field Data (2021)

The pie chart in figure 3 shows that most of the respondents at 43% (n=27) were spouses to the patient, followed by parents to the patient at 14% (n=9), siblings to the patient at 13% (n=8), grandparents to the patient at 11% (n=7), children of the patients were 11%(n=7), friends to the patient were 5% (n=3) and the least were others at 3%(n=2).

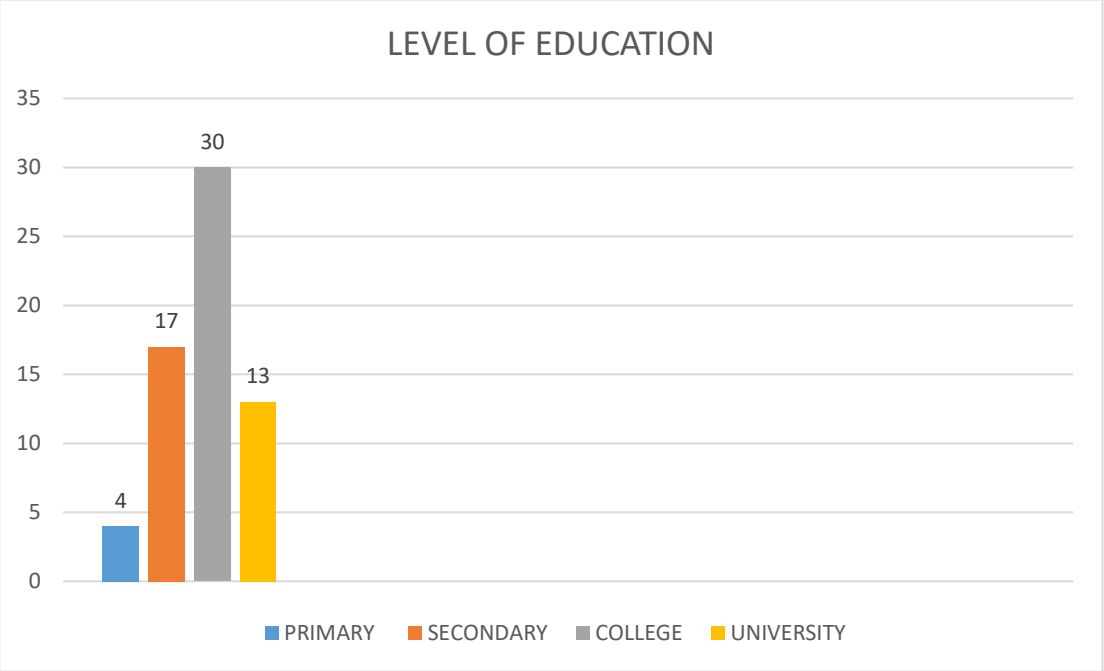


Figure 4: Respondent's level of education.

Source: Field Data (2021)

As presented in the histogram in figure 4, the highest number of respondents had attained a college level of education at 45.3% (n=29) followed by secondary level at 21.9% (n= 14), then University level at 20.3% (n=13) and the least had a primary level of education at 12.5% (n=4).

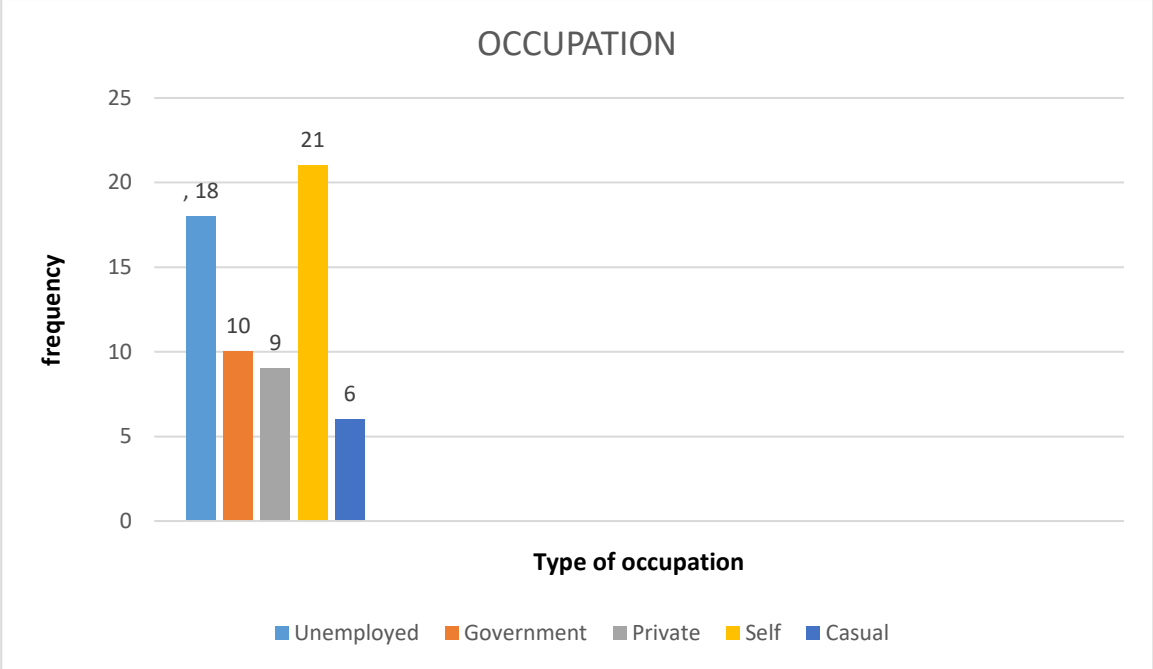


Figure 5: Respondents' occupation.

Source: Field Data (2021)

The above histogram in figure 5 shows that most of the respondents were self-employed at 26.6% (n=17), followed by unemployed at 23.4% (n=15), then private sector employees at 20.3% (n=13), government employees were at 17.2% (n=11) and the minority were unemployed at 12.5% (n=8).

4.2.2 Relatives' Perceptions on the physical organization of the unit.

Table 2: perception on the atmosphere of the unit.

Physical element	**Poor 1**	**Fair 2**	**Good /Excellent 3**	**Mean sentiment score**
Atmosphere of the waiting room	10 (15.6%)	27 (42.2%)	27 (42.2%)	2.2 (fair)
Atmosphere inside the unit	0 (0%)	10 (15.6%)	54 (81.4 %)	2.9 (good/ excellent)

Source: Field Data (2021)

Table 2 shows that there was a tie between the respondents that perceived the atmosphere as fair and those that perceived it as good/excellent at 42.2% (n=27), while 15.6 % (n=10) perceived it as poor. According to the mean sentiment score of 2.,2 the relatives perceived the atmosphere of the waiting room as generally fair. Regarding perception on the atmosphere inside the ICU most of the relatives at 81.4% (n=54) felt that the atmosphere inside the unit was good/ excellent while 25.5% (n=16) felt it was fair and none perceived it as poor. In general, the relatives perceived the atmosphere inside the ICU as good/excellent as represented by a mean sentiment score of 2.9.

Table 3: perceptions on noise in the unit.

Element	**Never 1**	**Rarely 2**	**Often /Always 3**	**Mean sentiment score**
Disturbance from equipment noise	7 (10.9%)	24 (37.5%)	33 (51.6%)	2.4 (often/always)
Disturbance from noise of other visitors	7 (10.94%)	32 (50%)	25 (39.1%)	2.2 (rarely)

Source: Field Data (2021)

According to table 3, most of the relatives at 51.6% (33), perceived disturbance from the equipment noise as often/always, 37.5%(n= 24) rarely found the noise from the ICU equipment as disturbing, while 10.9% (n=7) never found it disturbing. The mean sentiment score was 2.4 indicating that the relatives were often/ always disturbed by the noise from the equipment. On the other hand, 50% (n=32) rarely found noise from other patients' relatives disturbing, 39.1% (n=25) were often/always disturbed by the noise,10.94% (n=7). The mean sentiment score for this disturbance from other relatives

was 2.2 indicating that generally the relatives were rarely disturbed by noise from other relatives.

4.2.3 Relatives' Perceptions on the care given to their patient.

Table 4: Perceptions on care given to the patients.

Variable	Poor 1	Fair 2	Good/excellent 3	Mean sentiment score.
Skills of the nurses	0 0%	4 6.25%	60 (93.7%)	2.94 (good/ excellent).
Assessment of patients' needs	0 (0%)	0 (0%)	64 (100%)	3.0 (good/excellent).
Management of patients' needs	6 (9.65%)	0 0%	58 (90.6%)	2.81 (good/excellent).

Source: Field Data (2021)

Table 4 shows that majority of the respondents at 93.7% (n=60), perceived the skills of the nurses as good/excellent, and a few at 6.25% (n=4) thought the nurses' skills were fair. None of the relatives perceived the nurses as having poor nursing skills. Generally, the relatives perceived the ICU nurses as having good/excellent skills as shown by a mean sentiment score of 2.94. Concerning assessment of their patients' needs, all of the relatives at 100.0%(n=64) felt that the ICU nurses were good/excellent at assessing their patients' needs. None of the relatives perceived the nurses as fair or poor in assessing their patients' needs. As such the mean sentiment score for the assessment of the patients' needs was 3.0 indicating that the relatives perceived it as good/excellent. On management of their patients' needs, most of the relatives at 90.6%(n=58) felt that the ICU nurses were good/excellent at management of the needs of their patients, none felt they were fair and 9.65%(n=6) felt the nurses were poor in managing their patients' needs. In

general, the relatives perceived that the ICU nurses were good/excellent in management of their patients' needs as indicated by a mean sentiment score of 2.81.

4.2.4 Perceptions on involvement of relatives towards caring for their patients.

Table 5: Perceptions on involvement.

Variable	**Never 1**	**Rarely 2**	**Often/Always 3**	**Mean sentiment score.**
Explanations given by ICU nurses on patients' condition.	9 (15.6%)	10 (15.1%)	45 (74.6%)	2.56 (often/always).
Opportunity for hands on participation in the care of the patient.	9 (14.1%)	31 (48.4%)	24 (37.5%)	2.23 (rarely).
Inclusion in decision making.	4 (6.3%)	16 (25%)	41 (68.7%)	2.48 (often/always)

Source: Field Data (2021)

Table 5 shows the largest percentage of the respondents at 74.6%%(n=45) felt that they were always/often given explanations on their patients' condition by the ICU nurses, 14.1% (n=10) were rarely given explanations and 15.6% (n=9) were never given explanations concerning their patients' condition by the ICU nurses. In general, the mean sentiment score was 2.56 indicating that the relatives often received explanations regarding their patients condition from the ICU nurses. On the opportunity to participate hands on in the care of their patients, most relatives at 48.4% (n=31) felt they were rarely given the opportunity to participate hands on in the care of their patients,37.5% (n=24)

felt they were often/always given the opportunity, and 14.1% (n=9) said they were never given the chance of participating hands on in the care of their patients. In general, the relatives felt that they were rarely given the opportunity to take part hands on in the care of their patients' as indicated by a mean sentiment score of 2.23. On inclusion in decision making regarding their patients' management, most relatives at 68.7% (n=41) said they were often/always included, 25%(n=16) said they were rarely included and 6.3% (n=4) said they were never included in decision making. In general, the relatives perceived that they were often/always included in making decisions about their patients' management as shown by a mean sentiment score of 2.48.

4.2.5 Relatives' Perceptions on emotional support provided by the ICU nurses

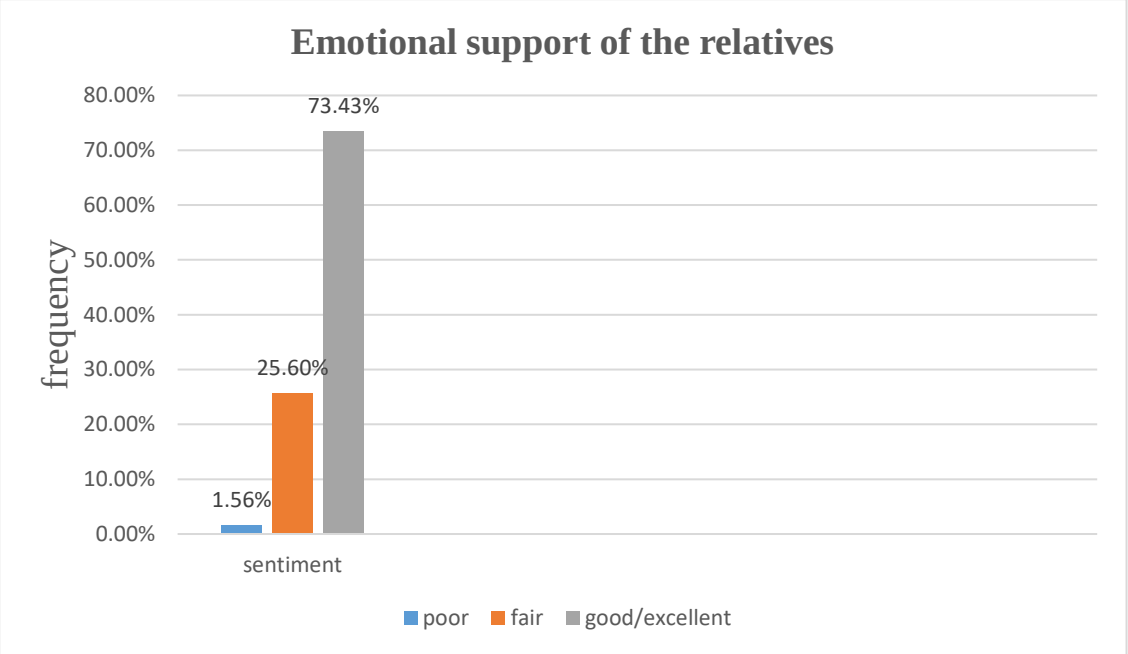


Figure 6: Relatives' Perceptions on emotional support the ICU nurses.

Source: Field Data (2021)

In regards to the histogram in figure 6, the highest number of respondents at 73.43% (n=47) felt that they received good/excellent emotional support from the ICU nurses,

25% (n=16), felt they were fairly supported by the ICU nurses and the least at 1.56% (n=1), said they were poorly supported by the nurses in the unit. The relatives had a general feeling that the emotional support by the ICU nurses was good/excellent as indicated by a mean sentiment score of 2.7.

4.2.6: Relatives Overall Experience.

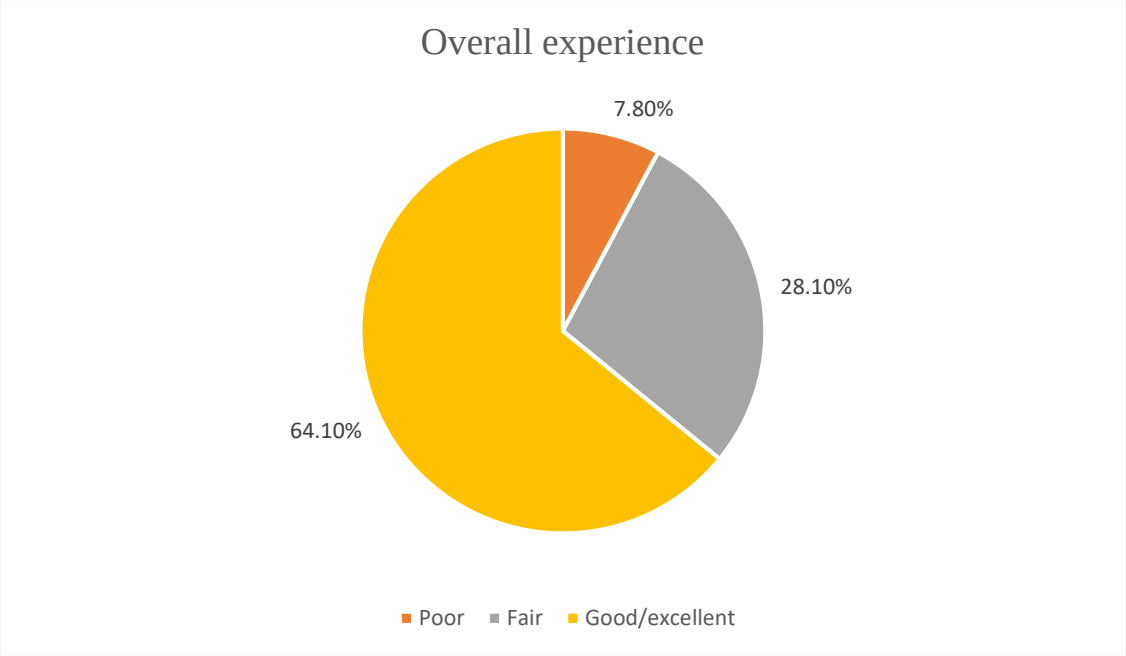


Figure 7: Relatives' Overall Experience.

Source: Field Data (2021)

According to the pie chart in figure 7 above, most of the relatives at 64.1% (n=41) had a good/excellent overall experience in the unit, 28.1% (n=18) felt their experience in the unit was fair, and the minority at 7.8% (n= 5) said they had a poor experience in the unit.

4.3 Data Analysis

Table 6: Association between Overall Experience and Independent Variables (Bivariate analysis).

Independent variables	Pearsons chi squared	Fisher's exact	p-value
Sex	1.8521	0.138	0.174
Age	0.9507	0.785	0.813
Relationship to the patient	3.9034	0.907	0.791
Education	4.2077	0.242	0.240
Occupation	3.3995	0.571	0.493
Atmosphere inside the unit	3.6744	0.195	0.159
Waiting room atmosphere	**11.6739**	**0.007**	**0.009**
Noise from equipment	1.9587	0.536	0.581
Visitors noise	3.1458	0.362	0.370
Nurses skills	2.6568	0.252	0.265
Nurses assessment of the needs of the patient.	6.8375	0.098	0.077
Nurses management of the needs of the patient.	2.3285	0.342	0.312
Explanations given concerning condition of the patient.	6.8489	0.074	0.077
Opportunity to take part hands on in the care of the patient.	4.5334	0.218	0.209
Inclusion in decision making	4.1647	0.285	0.244
Emotional support from nurses to the relatives.	1.9857	0.604	0.575

Source: Field Data (2021)

From the above table 6, there was no significant association between the relatives' socio demographic characteristics, their perceptions of nursing care given to their patients, their perceptions of involvement towards the care of their patients, their perceptions of

emotional support by the ICU nurses and their overall experiences as shown by p values greater than 0.05 at 95% confidence interval. However, a significant statistical association existed between the relatives' perceptions of the ICU waiting bay and their overall experience as indicated by a p value of 0.009 at 95% confidence interval.

4.4 Discussion of Result Findings.

4.4.1 Socio demographic characteristics of the respondents

This study had the largest number of the respondents as females at 54.7% (n=35) compared to men who were at 45% (n=29). The study found that there was no significant association between the respondents' gender and their overall experience in the unit (p=0.174 at 95% confidence interval). These findings were in agreement to those of Kohi et al., (2016), in which there was no significant statistical association between the gender of the relative and the overall experience. Regarding the respondents age, most of the relatives were in the age bracket of 18-34years at 62.50% (n=40), followed by those aged 35-44 years at 18.75% (n=12), then those aged 45-54 years of age at 12.50% (n=8) and the least were those between the ages of 55-64 years. There was no significant association between the age of the respondent and their overall experience as shown by a p value of 0.813(confidence interval of 95% and R^2-0.95). This finding was in harmony with the findings of Mol et al., (2014) in Netherlands where the age of the relatives was not significantly associated with their perceptions and experience in the unit.

Regarding the relationship of the respondent to the patient in the unit, spouses formed the majority of the respondents at 32.8% (n=21), followed by parents to the patient at 14% (n=9), siblings to the patient at 13% (n=8), grandparents to the patient at 11% (n=7), children of the patients were 11%(n=7), friends to the patient were 5% (n=3) and the least were others at 3%(n=2). Nevertheless, the relationship of the respondent to the patient did not have a significant effect on their overall experience as shown by a p value of 0.791 (CI-95%). These findings were in agreement with those of Kohi et al., (2016), in Tanzania where there was no significant statistical association between the relationship of the participant to the patient and overall experience but differed to those of Malliarou

et al., (2016) in Greek hospital where the relationship of the relative to the patient correlated with the experience of the relative in the unit.

As pertains employment, most of them were self-employed at 26.6% (n=17), followed by unemployed at 23.4% (n=15), then private sector employees at 20.3% (n=13), government employees were at 17.2% (n=11) and the minority were unemployed at 12.5% (n=8). There was no significant association between employment and the overall experience of the relatives as indicated by a p value of 0.493 at a confidence interval of 95%) These findings agreed to those of Mol et al., (2014) where employment variable was not significantly associated with the relatives' perceptions.

In regards to education of the participants, majority had a college level of education at 45.3% (n=29) followed by secondary level at 21.9% (n= 14), then University level at 20.3% (n=13) and the least had a primary level of education at 12.5% (n=4). However, the level of education did not significantly influence the overall experience of the respondents as shown by a p value of 0.24(CI-95%). These results differed with those of Malliarou et al., (2016) where the level of education was a significant factor in the relatives' experience as those with a higher level of education were more informed and as such demanded for better services.

4.4.2 Perceptions and experiences of the physical organization of the ICU

This was assessed using questions that addressed the atmosphere of the waiting room and whether the waiting room was conducive to the needs of the relatives, the atmosphere in the unit itself, the noises from the equipment and the noises from relatives.

The study found that majority of the respondents at 42.2% (n=27), perceived the atmosphere in the waiting room as fair, 42.2% (n=27), perceived it as good/excellent, while 15.6 % (n=10) perceived it as poor. According to the mean sentiment score of 2.2, the relatives perceived the atmosphere of the waiting room as generally fair. A significant

association was found between this perception of the waiting room atmosphere and their overall experience in the unit as shown by p value of 0.009 (CI-95%). These results were similar to those of a study done by Scot et al., (2019) in the United Kingdom that showed that 1% of the relatives were satisfied with the waiting room and 0.4% were satisfied with the patient's room. In that study the relatives felt that the room was too small to accommodate a number of visitors and made a recommendation for the improvement of relatives' facilities. The same sentiments were echoed by relatives in a study done by Haave, Baakke & Schroder., (2021), in Norway where they felt least satisfied with the waiting room atmosphere as they perceived the waiting time in that room as stressful as they preferred to be with the patient and so were the results of a similar study done by Kohi, Obogo, & Mselle (2016), in Tanzania where relatives were least satisfied with the ICU environment as the ICU did not have a waiting room for the relatives. On the contrary, a similar study conducted by Mol, Bakker, Njikamp & Kompanje (2015), in Netherlands, most of the relatives found the waiting room to be comfortable. They valued having a place they could wait that was close to the ICU. They also met other visitors while waiting. They were able to relate with the emotions of other visitors as they had experienced them too or were going through the same

Regarding the relatives' perceptions of the atmosphere inside the unit, most of the relatives at 81.4% (n=54) felt that the atmosphere inside the unit was good/excellent, 25.5% (n=16) felt it was fair and none perceived it as poor. In general, the relatives perceived the atmosphere inside the ICU as good/excellent as represented by a mean sentiment score of 2.9. Their perceptions about the atmosphere inside the unit did not significantly influence their overall experience as shown by a p value of 0.159 (CI-95%). These results were similar to those of a study done by Kohi et al., (2016), in Tanzania where most of the participants were highly satisfied with the general ICU environment

and differed to those of Scot et al., (2019) in the United Kingdom where only 0.4 % of the relatives were satisfied with the patient's rooms and they were more satisfied when offered information concerning the environment of the ICU and the equipment through either discussing with the staff or leaflets.

Concerning the noise in the unit, specifically the noise from the equipment's, most of the relatives at 51.6%(n=33), were often/ always disturbed by this noise, 37.5%(n= 24) rarely found the noise from the ICU equipment as disturbing, while 10.9% (n=7) never found it disturbing. The mean sentiment score was 2.4 was indicating that the relatives were often/always disturbed by the noise from the equipment. However, there was no statistical significance of this disturbance by noise from the equipment on the overall experience of the relatives in the unit as indicated by p value of 0.581(CI-95%). On the other hand, 50% (n=32) rarely found noise from other visitors disturbing, 39.1% (n=25) were often/always disturbed by the noise from other visitors and 14.1% (n=9) were never disturbed by the noise from other visitors. The mean sentiment score for this disturbance from other relatives was 2.2 indicating that generally the relatives were rarely disturbed by noise from other visitors. The study found no significant association between disturbance by noise from other relatives and their overall experience (p=0.370, CI-95%). These results agreed to those of a similar study conducted by Mol, Bakker, Njikamp & Kompanje (2015), in Netherlands, in which there was no significant association between this element of nuisance from the other visitors in the unit and the relatives' perception of quality care and differed with those of Siddhan et al., (2019) in North India where relatives expressed noise within the environment as a problem in the ICUs.

4.4.3 Perceptions on the care given to the patient and the overall experience

This was assessed using questions that addressed the perception of the relatives with regard to the skills of the ICU nurses, nurses' assessment of the patients' needs and nurses' management of the needs of the patient.

Regarding the skills of the nurses, majority of the respondents at 93.7% (n=60), perceived the skills of the nurses as good/excellent, and a few at 6.3% (n=4) thought the nurses' skills were fair. None of the relatives perceived the nurses as having poor nursing skills. Generally, the relatives perceived the ICU nurses as having good/excellent skills as shown by a mean sentiment score of 2.94. The study found that relatives' perception of the skills of the nurses did not significantly influence their overall experience in the unit (p=0.265, CI-95%). These findings are similar to a study done by Scot et al., (2019), in United Kingdom which found that relatives of critically ill patients felt that the care their relatives received was highly satisfactory more so with the competence and the technical skills aspects of the staff and those of Carlson, Spain & Montez., (2016) in United States where relatives rated highly the technical skills as well as the competence of the ICU nurses. However, they contrasted with those of Mselle and Msengi (2020), where the relatives perceived the quality of care given to their patients as inadequate due to failure of the health care personnel to properly coordinate the care of their patients and as a result, the relatives became frustrated. They also experienced confusion when their patients' condition deteriorated and there was no continuity of care from the nurses. They were dissatisfied with how the care was organized (Mselle & Msengi, 2020).

Concerning assessment of their patients' needs, all of the respondents at100 %(n=64) felt that the ICU nurses were good/excellent at assessing their patients' needs and as such none of the relatives perceived the nurses as fair or poor in assessing their patients' needs. Generally, the relatives perceived that the nurses were good/excellent at assessing the

needs of their patients as indicated by a mean sentiment score of 3.0. However, there was no significant statistical association between relatives' perception of the nurses' ability to assess the needs of their patients and the relatives' overall experience (p=0.077, CI-95%). These findings were similar to those of Haave et al., (2021), where the relatives were highly satisfied with how the ICU nurses assessed their patients.

On management of their patients' needs by the ICU nurses, most of the relatives at 90.6%(n=58) felt that the ICU nurses were good/excellent at managing the needs of their patients, none felt they were fair and 9.65%(n=6) felt the nurses were poor in managing their patients' needs. In general, the relatives perceived that the ICU nurses were good/excellent in management of their patients' needs as indicated by a mean sentiment score of 2.81 but there was no statistical significance of this perception and the relatives' overall experience (p=0.312, CI- 95%). These findings were similar to those of Maina et al., (2018), that revealed that most of the participants acknowledged that ICU nurses were dedicated in their work and appreciated them for their wonderful performance and those of Haave et al., (2021), where the relatives were highly satisfied with how the ICU nurses assessed and managed the symptoms of their patients. Carlson et al., (2016), in United States also agreed with the findings where relatives rated highly the skills and competence of the staff. However, the findings contrasted to those of Gishu, Weldesadik and Teweab in 2019 in Ethiopia where majority of the relatives perceived lowly the quality of the nursing care offered there.

4.4.4 Relatives' Perceptions and experiences of involvement in the care of patient.

Majority of the respondents at 74.6%(n=45) felt that they were often/always given explanations on their patients' condition by the ICU nurses, 14.1% (n=10) were rarely given explanations and 15.6% (n=9) were never given explanations concerning their patients' condition by the ICU nurses. The mean sentiment score was 2.56 indicating that

the relatives often/always received explanations regarding their patients condition from the ICU nurses. However, there was no significant association between relatives' perception of explanations received concerning their patients' conditions and their overall experience (p=0.077, CI-95%). These results differed from those of a similar study done by Bailey, Sabbagh, Loisellle & Boileau (2016), in Canada, where there was a significant association between the informational support relatives received and their overall satisfaction in the unit. The results also differed from Mol et al., (2014) in a similar study where relatives perceived communication as one of the vital factors in their perception of the quality care that their patients received. The findings also contrasted to the findings of a similar study done by Scott et al., (2019), whereby relatives expressed less satisfaction with the information given to them by the ICU nurses concerning their patients condition as it was scarce and inconsistent and this was attributed to nurses' lack of confidence to provide information due to fear of giving incorrect information or inability to answer questions adequately and the lack of confidence among the nurses was thought to be due to the nurses believe that they are underprepared educationally or insufficiently qualified in giving the required level of information. Maina et al., (2018) also differed with these findings as most of the relatives in the study felt that they were given partial information by the ICU nurses concerning the condition and the care of their patients. This lack of adequate information was cited as a major barrier for the relatives to provide care for their loved one in the unit and at home once discharged. The study cited that the reasons as to why nurses failed to provide in depth explanations was due to minimal interaction of the ICU nurses and the families and the thought that such information would overburden the relatives. These findings also contrasted to those of Carlson et al., (2016) in the United States where the relatives experienced less satisfaction

with information and communication and this was attributed to the information being complex and unfamiliar, language barrier and low level of education.

On the opportunity to participate hands on in the care of their patients, most relatives at 48.4% (n=31) felt they were rarely given the chance to participate hands on, 37.5% (n=24) felt they were often/always given the opportunity, and 14.1% (n=9) said they were never given the opportunity to take part hands on in the care of their patients. In general, the relatives felt that they were rarely given the opportunity to participate hands on in the care of their patients' as indicated by a mean sentiment score of 2.23. However, there was no significant association between the relatives' perceptions of the opportunity to take part hands on in the care of their patient and their overall experience as indicated by a p value of 0.20(CI-95%). These findings were similar to a study done by Maina, Kimani and Omuga in 2018, whereby despite relatives showing willingness to actively participate in the care of their patient, nurses were reluctant to involve them and the relatives felt that the reason as to why they were not involved in the general activities of care for their patient was because it is involving to care for a patient who is critically ill and as such the relatives did not possess the skills and the knowledge required. Nevertheless, the relatives in that study were satisfied with how they were involved in the care of their patients (Maina et al.,2018). The findings also correlated with those of Mselle and Msengi (2020), whereby relatives felt that health care personnel were not making efforts towards involving them in caring for their patients despite their availability. Carlson et al., (2016), agreed with these findings whereby the relatives who got involved in the care of their patients were highly satisfied with their experience in the unit. Scot et al., (2016), also concurred with the findings as he noted that there was a significant improvement in the overall experience among relatives when they were encouraged to provide assistance in their patients' provision of care.

On inclusion in decision making regarding their patients' management, most relatives at 68.7% (n=41) said they were often/always included, 25%(n=16) said they were rarely included and 6.3% (n=4) said they were never included in making decisions regarding the care of their patients. The mean sentiment score was 2.48 suggesting that the relatives perceived that they were often/always included in making decisions about their patients' management. However, there was no significant association between the relatives' perception of inclusion in decision making and their overall experience as shown by a p value of 0.244 at a confidence interval of 95%, these findings resonated with those of Lind.,2019, in a similar study where the relatives felt that their involvement in making decisions was limited. However, these findings were contrary to those of a similar study done in Ethiopia where most of the relatives were totally satisfied with their experience in decision making (Kehali et al.,2020).

4.4.5 Relatives perceptions on emotional support and their overall experience.

Majority of the relatives at 73.43% (n=47), felt that they received good/excellent emotional support, from the ICU nurses, 25% (n=16), felt they were fairly supported emotionally by the ICU nurses and the least at 1.56% (n=1), said they were poorly supported emotionally by the nurses in the unit. The relatives had a general feeling that they were good/excellently supported emotionally by the ICU nurses as indicated by a mean sentiment score of 2.7. However, there was no significant association between this perception and their overall experience in the unit (p value 0.575, CI-95%). Carlson et al., (2016) disagreed with these findings as in his similar study in the United States where the relatives experienced less emotional support from the ICU nurses and in another similar study by Kohi et al., (2016) in Tanzania, where the nurses made an admission that they lacked adequate time to pay enough attention to the relatives. The findings were also contrary to those of Rosenberg et al., (2016), where the relatives felt as if they had

been left to themselves, isolated with no care from the health care personnel who seemed uninterested in the relatives. The findings further contrasted to a similar study done by Wagner (2017), whereby 38% of the relatives felt that there was no emotional support offered to the family and by Scott et al., (2016), in United Kingdom where the relatives perceived lowly the emotional support received from the ICU nurses and 50% of them continued to experience anxiety and distressed emotions for a period of two years upon leaving the hospital and this tended to influence their lifestyle and consequently their life's quality hence the measurement of quality care in the ICU should put into consideration the perspective of the relatives and their experience for the improvement of the psychological well-being of the relatives (Scott et al., 2016). There is inadequate knowledge among health care personnel regarding what these relatives undergo when one of their family members is hospitalized. (Rosenberg et al.,2016).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This section summarized the findings of the study, discussion and conclusions majored on the key results obtained from the study. It also entailed the various recommendations to the relevant institutions and gave suggestions for areas that would require research going forward.

5.1 Summary of Findings

5.1.1 Socio demographic characteristics of the respondents

This study had majority of the respondents as females at 54.7% (n=35). However, the gender of the respondents did not significantly influence their overall experience in the unit as given by a p value of 0.174 at CI-95%. Regarding the age of the respondents, most of them were in the age bracket of 18-34years at 62.50% (n=40). Their age did not significantly affect their overall experience in the unit as shown by a p value of 0.813(CI-95%). Regarding the relationship of the respondent to the patient in the unit, spouses formed the majority of the respondents at 32.8% (n=21). Nevertheless, the relationship of the respondent to the patient did not have a significant effect on their overall experience in the unit as shown by a p value of 0.791 at 95% confidence interval. In regards to education of the participants, majority had a college level of education at 45.3% (n=29). However, the level of education did not significantly influence the overall experience in the unit of the respondents as shown by a p value of 0.240, at 95% confidence interval. As pertains employment, most of them were self-employed at 26.6% (n=17), followed by unemployed at 23.4% (n=15) There was no significant association between employment and the overall experience of the relatives in the unit as indicated by a p value of 0.493 (CI-95%).

5.1.2 Perceptions and experiences of the physical organization of the unit

The relatives perceived the atmosphere of the waiting room as generally fair according to the mean sentiment score of 2.2. A significant association was found between these perceptions of the waiting room atmosphere and their overall experience in the unit as shown by p value of 0.009 (CI-95%). The relatives perceived the atmosphere inside the ICU as good/excellent as represented by a mean sentiment score of 2.9. Their perceptions about the atmosphere inside the unit did not significantly influence their overall experience in the unit as shown by a p value of 0.159(CI-95%). The relatives perceived the noise from the equipment as often/always disturbing as shown by a mean sentiment score was 2.4. However, there was no statistical significance of this perception of disturbance by noise from equipment on the overall experience of the relatives in the unit as indicated by p value of 0.581(CI-95%). The relatives perceived the noise from other visitors as rarely disturbing (mean sentiment score 2.2). There was no significant association between disturbance by noise from other visitors and their overall experience in the unit (p=0.370, CI-95%).

5.1.3 Perceptions on the care given to the patient and the overall experience

The relatives perceived the ICU nurses as having good/excellent technical skills as shown by a mean sentiment score of 2.94. The study found that relatives' perceptions of the technical skills of the nurses did not significantly influence their overall experience in the unit (p=0.265, CI-95%). The relatives perceived that the nurses were good/excellent at assessing the needs of their patients as indicated by a mean sentiment score of 3.0. There was no significant association between relatives' perceptions of the nurses' ability to assess the needs of their patients and their overall experience (p=0.077, CI-95%). The relatives perceived that the ICU nurses were good/excellent in management of their

patients' needs as indicated by a mean sentiment score of 2.81. These perceptions did not significantly influence their overall experience as presented by a p of 0.312, CI-95%).

5.1.4 Relatives' Perceptions and experiences of involvement in the care of patient

The relatives often/always received explanations regarding their patients condition from the ICU nurses as shown by a mean sentiment score was 2.56. However, there was no significant association between relatives' perceptions of explanations received concerning their patients' conditions and their overall experience in the unit (p=0.077, CI-95%). The relatives felt that they were rarely given the opportunity to participate hands on in the care of their patients' as indicated by a mean sentiment score of 2.23. However, there was no significant association between the relatives' perceptions of the opportunity to take part in the care of their patient and their overall experience in the unit as indicated by a p value of 0.209 at 95% confidence interval. The relatives perceived that they were often/always included in making decisions about their patients' management as indicated by a mean sentiment score of 2.48. However, there was no significant association between the relatives' perception of inclusion in decision making and their overall experience in the unit (p=0.244, CI-95%).

5.1.5 Relatives perceptions on emotional support and their overall experience

The relatives had a general feeling that they were accorded good/excellent emotional support by the ICU nurses as indicated by a mean sentiment score of 2.7. However, there was no significant association between this perception and their overall experience in the unit (p value 0.575 at 95% confidence interval.

5.2 Conclusions

The study sought to determine the perceptions and overall experience of relatives with critically ill patients in the ICU and concluded that there was no significant association between the socio demographic characteristics of the relatives and their overall

experience in the unit as shown by p values greater than 0.005 at 95% confidence interval, in regards to the sex, age, relationship to the patient, education level, and occupation type of the relative. There was no significant association between the relatives' perceptions of nursing care given to their patients and their overall experience in the unit as presented by p values more than 0.005 at a confidence interval of 95% in relation to the nurses' assessment of the patients, nurses' management of the needs of the patient and explanations given to the relatives. There was no significant association between the perceptions of relative's involvement in caring for their patients and their overall experience and neither was there a significant association between the relatives' perceptions on the emotional support provided by the nurses and their overall experience in the unit (p=0.575,CI-95%). However, a significant statistical association existed between the relatives' perceptions of the ICU waiting bay and their overall experience in the unit (p=0.009, CI-95%).

5.3 Recommendations.

Depending on the outcome of the study, the researcher recommended that the hospital management should look into the condition of the ICU waiting facility in liaison with inputs from the relatives as it had a significant influence on the relatives' overall experience in the unit (p=0.009, confidence interval at 95%). The researcher further recommended a phenomenological study to be carried out on the same to gain deeper insights into the study.

REFERENCES.

Alfieri E., Mori M., & Barbui. (2017). Advanced Competencies mapping of Critical Care nursing: A qualitative research in two ICUs in Italy. *Acta Biomed,88, (2), 67-74.*

Auerbach, SM., & Wartella, J., (2015). Optimism, Satisfaction with Needs Met, Interpersonal Perceptions of the Healthcare Team and Emotional Distress in Patients' Family Members During Critical Care Hospitalization. *American Journal l of Critical Care,14, (3),*202-207.

Bailey., Sabbagh., Loiselle., & Boileau., (2016). Supporting Families in the Intensive Care Unit: A descriptive Correlational Study of Informational Support, Anxiety and Satisfaction with Care. *Intensive and Critical Care Nursing Journal,26, (1),*114-122.

Blom., Gustavsson, C., & Sundler, J. (2013). Participation and Support in Intensive Care as Experienced by Close Relatives of Patients- *A Phenomenological Study. Intensive and Critical Care Nursing Journal,29, (1),* 1-8.

Carlson., Spain., Montez., (2016). Care and Caring in the ICU: Family Members' Distress and Perceptions About Staff Skills and Emotional Support. *Journal of Critical Care, 30(3), 557-561*.

Convisky, T., (2014). The Impact of Serious Illness on Patients, Families. *Intensive Care Medicine Journal,34, (6),*1097-1101.

Cypress, B.S. (2014). The Emergency Department: Experiences of Patients, Families and Their Nurses. *Emergency Nursing Journal,36, (2),*164-176.

Davidson, JE., & Bienvenu, O., (2014). Clinical Practice Guidelines for Support of the Family in The Patient Centered Intensive Care Unit*: Critical Care Med,35, (2),*605-625.

Denscombe, M. (2016). The Good Research Guide for Small Scale Research Projects. *Creative Education,6, (20).*

Duran, E., (2017). Attitudes Toward and Beliefs About Family Presence. A survey of Healthcare Providers, Patients' Families and Patients'. *American Journal of Critical Care,16, (3),*281-284.

Donnelly, S., & Dickson, M. (2019). Relatives' Matched with Staff's Experience of the Moment of Death in a Tertiary Referral Hospital. *An International Journal of Medicine, 106, (8),* 731-736.

Engstrom, A., (2016). Close Relatives of Critically Ill Persons in Intensive Care. *Intensive and Critical Care Nursing,20, (2),*300-307.

Fast., (2017). Developing Family Involvement Questionnaire. *Capstone projects*.685.

Fateel, E., & O'Neill, S., (2016). Family Members Involvement in the Care of Critically Ill Patients in Two Intensive Care Units in an Acute Hospital in Bahrain: The Experiences and Perspectives of Family Members and Nurses: *A Qualitative Study.ClinicalNursing Studies,4(1).*

Gay, L., & Arasian, P. (2003). Educational Research: Competencies for Analysis and Application. *Creative Education,8(5).*

Gishu, T., Weldestsadik, A., & Tekleab, M., (2019). Patients' Perception of Quality of Nursing Care: A Tertiary Center Experience from Ethiopia. *BMC Nursing, pg-1186.*

Haave., Bakke., Schroder., (2021). Family Satisfaction in the ICU: A cross sectional Study from Norway. *BMC Emergency Medicine, pg-1476.*

Hennenman, A.E., & Cardin, S., (2014). Family Centered Critical Care: A Practical Approach to Making It Happen. *Critical Care Nursing Journal,22, (6),* 12-19.

Jehnsen, L., (2015). Families' Experiences of Intensive Care Unit Quality of Care: Development and Validation of a European Questionnaire. *Journal of Critical Care, 30, (1),*884-890.

Kehali H., Berhan C., & Cuthil F., (2020). A Phenomenological Study on the Lived Experiences of Families of ICU Patients, Addis Ababa, Ethiopia. *Plos One Journal,15, (12),73-74.*

Kohi., Obogo., & Mselle., (2016). Perceived Needs and Level of Satisfaction with Care by Family Members of Critically Ill Patients in Tanzania. *BMC Nursing, 18, (1), 6541.*

Lakanmaa RL., & Suominem T., (2015). Competence Requirements in in Intensive and Critical Care Nursing S till in Need of Definition? A Delphi study. *Intensive Crit Care Nurs.28(6),329-336.*

Leske, JS., & McAndrew, NS., (2014). A Balancing Act: Experiences of Nurses and Physicians When Making End of Life Decisions in Intensive Care Units. *Clinical Nursing Research,24(4).*

Lind R., (2019). Sense of Responsibility in ICU end of Life Decision Making in Nordia; Relatives' Experience. *SAGE 26 (1),10-14.*

Maina, M, P., Kimani, S., & Omuga, B., (2018). Involvement of Patients' Families in Care of Critically Ill Patients at Kenyatta National Hospital Critical Care Units. *American Journal of Nursing Science,7, (1),* 31-38.

Malliarou, M., & Nikoletta, A., (2022). How Nurses Perceive Care and Their Relationship with their Compassion: A Literature Review. In*ternational Journal of Caring Sciences,15(1),702.*

McAdam, J.L., & Puntillo, K, A., (2015). Psychological Symptoms of Family Members of High Risk Intensive Care Unit Patients. *American Journal of Critical Care, 216 (6), 386-393.*

McNamara, N., (2017), The Meaning of the Experience for Intensive Care Unit Nurses when a Family Member is Ill: A Hermeneutic Phenomenological Study. *An International Journal of Nursing, 25, (2),* 98-102.

Mol, MMC., Bakker, J., Njikamp, MD., & Kompanje, EJ., (2018). Counterbalancing Work Related Stress? Work Engagement among Intensive Care Professionals. *Aust Crit Care,31, (4),234-241.*

Orodho, J, A., (2012). Techniques of Writing Research Proposals and Reports in Education and Social Sciences. Maseno, Kenya: Kanezja Publisher.

Mselle, T, L., & Msengi, H., (2020). Caring for Critically Ill Patients in the Tanzania's General Wards: Experiences of Physicians and Nurses. *Critical Care and Emergency Medicine International Journal,10, (1),2474-3074.*

Penner J, L., & McClement, S., (2015). Family Members Experiences Caring for Patients with Advanced Head and Neck Cancer receiving tube feeding: A Descriptive Phenomenological Study. *J pain symptom mnage.44(4),563-571*

Quinn, TV., & Redmond J., (2016). Written Care Summaries Facilitate Communication Between Families and Providers of ICU Patients: A Pilot Study. *Crit Care Explor,3(7),473.*

Rosenberg AL., Zimmerman J., & Azola C., (2016). Intensive Care Unit Length of Stay: Recent Changes and Future Challenges. *Crit Care Med, 28, (10),3465-3473.*

Scott., Thomson., & Shepherd., (2019). Families of Patients in ICU in Stirling University., United Kingdom. A Scoping Review of their Needs and Satisfaction with Care. *Critical Care Journal,6, (1), 698-712.*

Siddhan E., Gupta, J., Satpathy, C & Lodha, E., (2019). Structure and Organization of ICUs in Tertiary Care Hospital of North India. A Comparative Study Against National and International Guidelines. *Critical Care Journal,3, (1),109-115.*

Son Y., Lee., Park C., (2015). A study of ICU Nursing Core Skills Design for Nursing Practice Education. *Journal of Problem Based Learning South Korea,2, (1)1-3.*

Wagner D.P., (2017). The Use of Intensive Care: A Comparison of a University and Community Hospital. *Health Care Finance Rev,3, (2),49-64.*

APPENDICES

Appendix I: Consent Letter to the Respondents

I am JENIFFER KATINDI MUSYOKA a nursing student at Mount Kenya University pursuing a degree in Masters of Science in Nursing. I am doing a study on "Experiences of Relatives with Critically Ill Patients in Machakos Level Five Hospital Intensive Care Unit". This is so I can fulfil one of the requirements towards achieving the masters' degree.

Benefits of the study: the outcome of this study will give the healthcare workers an understanding of how relatives create sense of the ICU experience. Understanding the experiences will enable the healthcare workers to devise ways on how to support the relatives in the unit and offer family centered care. This will contribute towards improved services to both the relatives and the patients.

Risks: This study has no any risk. There are no invasive procedures to be performed during the study.

It is voluntary and should you feel like withdrawing at any given time, you are allowed to do so.

Confidentiality will be maintained throughout the study. You should not write your name or the name of your patient in any part of this questionnaire.

Choose the most appropriate choice. It will take about thirty minutes to answer the questionnaire. You can seek for clarity of any question at any point of the study.

Kindly answer the questions honestly and precisely.

I hereby do agree to participate in the study.

Signature of the respondent……. Date……...

Signature of the interviewer……..... Date ……

Appendix II: Idhini

Mimi ni **JENIFFER KATINDI MUSYOKA** mwanafunzi wa Shahada ya Sayansi katika Utabibu (MSCN) kwenye Chuo Kikuu cha Mlima Kenya (MKU). Nafanya Utafiti kuhusiana na "**Mapito ya Familia ambazo ziko na Wagonjwa Mahututi katika Hospitali ya Rufaa ya Machakos**, **Kitengo cha Wagonjwa hali Mahututi".**

Matokeo ya utafiti huu yatasaidia kujulisha watenda kazi wa afya juu ya yale matukio jamaa wa wagonjwa hawa wanayopitia. Kwa kujua matukio hayo,wahudumu wa afya watakuwa katika nafasi bora ya kuwasaidia ndugu na jamaa wa wagonjwa katika hiki kitengo cha wagonjwa mahututi.

Hakuna hatari yoyote iliyopo katika kushiriki kwenye huu utafiti

Kushiriki ni kwa hiari yako. Unaweza koma kuendelea na utafiti huu wakati wowote utakao. Usinakiri jina lako wala jina la mgonjwa wako katika karatasi yoyote yah ii utafiti.

Maswali yaliyomo kwenye utafiti huu yana majibu, chagua jibu moja tu kwa kila swali. Itakuchukua nusu saa kushiriki kwenye utafiti huu.

Majibu yako yatahifadhiwa kwa siri kuu. Hayatatumika kukudhulumu wewe wala mgonjwa ako kwa njia yoyote ile.

Mimi nakubali kushiriki katika utafiti.

Sahihi ya mhojiwa……..... Tarehe …….

Sahihi ya mhoji……Tarehe……

Appendix III: Consent Letter to the Facility's Ethics and Research Committee.

Jeniffer K. Musyoka,
TEL NO: 0700854697,
Email: musyokajeniffer@gmail.com.
Mount Kenya University,
P.O Box,342-01000
THIKA.

Machakos Level Five Hospital Ethics and Research Committee,
P.O Box,16-9105,
MACHAKOS.

Dear Sir/ Madam:

21/7/2021

RE: REQUEST TO COLLECT DATA FROM ML5H ICU.

Greetings. I am a student from Mount Kenya University pursuing a Master's degree in nursing (critical care). As part of the requirements for completion of the course I am required to carry out a research in my area of specialization. As a result, I am requesting for the opportunity to carry out a research entitled "perceptions and experiences of relatives with critically ill patients at Machakos Level Five Hospital Intensive Care Unit". The aim of the study is to explore the perceptions and experiences of relatives of critically ill patients in Machakos Level Five Hospital ICU. The results of the study will be shared with the hospital upon successful completion. Your consideration will be highly valued.

Yours faithful,

Jeniffer K. Musyoka.

Appendix IV: Questionnaire

INSTRUCTIONS

Do not write your name or the name of your patient in any page of this questionnaire.

Provide answers to all of the questions.

Circle the appropriate answer.

SECTION 1: DEMOGRAPHIC INFORMATION

1. What is your relationship to the patient in the ICU? I am his/her:

   - ❑ Child
   - ❑ Sibling
   - ❑ Parent
   - ❑ Spouse
   - ❑ Live in partner
   - ❑ Grandparent
   - ❑ Other (please specify)

     _____

2. What is your gender?

   - ❑ Male
   - ❑ Female

3. What is your age bracket?

   - ❑ 18-34 years
   - ❑ 35-44 years
   - ❑ 45-54 years
   - ❑ 55-64 years
   - ❑ > 65 years

4. What is your highest level of education?

   - ❑ Primary
   - ❑ Secondary
   - ❑ College
   - ❑ University
   - ❑ None

5. What is your occupation?

   - ❑ Government employee
   - ❑ Private sector employee
   - ❑ Self employed
   - ❑ Casual labourer

- ❑ Unemployed

SECTION 2: ORGANISATION OF THE UNIT.

1. How do you perceive the atmosphere inside the ICU?

4	Excellent
3	Good
2	Fair
1	Poor

2. How do you perceive the atmosphere in the waiting room?

4	Excellent
3	Good
2	Fair
1	Poor

3. Do you find the noise from the ICU equipment disturbing?

4	Always
3	Often
2	Rarely
1	Never

4. Do you find the noise from other patients' visitors disturbing?

4	Always
3	Often
2	Rarely
1	Never

5. **Any other comments?**

……

……

……

SECTION 3. PERCEPTION ON CARE GIVEN TO THE PATIENT

6. How do you perceive the skills of the ICU nurses?

4	Excellent
3	Good
2	Fair
1	Poor

7. How well do the ICU nurses assess your patient?

4	Excellent
3	Good
2	Fair
1	Poor

8. How well do the ICU nurses manage your patient's symptoms?

4	Excellent
3	Good
2	Fair
1	Poor

9. How do you perceive the nursing care given to your patient by the ICU nurses?

4	Excellent
3	Good
2	Fair
1	Poor

Any other comments?

……

……

……

……

SECTION 4: PERCEPTION ON INVOLVEMENT IN CARE OF THE PATIENT.

1. Do the ICU nurses give you explanations about your patient's condition?

4	Always
3	Often
2	Rarely
1	Never

2. Do the ICU nurses give you opportunity to participate hands on in the care of the patient?

4	Always
3	Often
2	Rarely
1	Never

3. Do you feel as if you are included in making decisions about your patient's management?

4	Always
3	Often
2	Rarely
1	Never

4. **Any other comments?**

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

SECTION 5: PERCEPTION ON RELATIVES' EMOTIONAL SUPPORT IN THE UNIT.

1. In your opinion, do the ICU nurses show interest into your needs?

4	Always
3	Often
2	Rarely
1	Never

2. In your opinion, how would you rate the emotional support provided to you by the ICU nurses?

4	Excellent
3	Good
2	Fair
1	Poor

SECTION 6: EXPERIENCE OF HAVING A RELATIVE IN ICU

3. How would you rate your overall experience of having a patient in this ICU?

4	Excellent
3	Good
2	Fair
1	Poor

4. How would you rate your overall experience of care provided to your patient by the ICU nurses?

4	Excellent
3	Good
2	Fair
1	Poor

5. How would you rate your overall experience of your involvement towards provision of care to your patient by the ICU nurses?

4	Excellent
3	Good

2	Fair
1	Poor

6. How would you rate your overall experience of support provided to you by the ICU nurses?

4	Excellent
3	Good
2	Fair
1	Poor

10. Any other comments?

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…… …

THANK YOU FOR YOUR PARTICIPATION.

Appendix V: DODOSO

MAAGIZO.

Usionyeshe jina lako wala jina la mgonjwa wako popote kwenye dodoso hili.

Tafadhali jibu maswali yote.

Zungushia jibu linalofaa.

SEHEMU YA 1: TAARIFA ZA KIDEMOGRAFI

1. Una uhusiano gani na mgonjwa aliye ICU? Mimi ni wake:

   θ Mtoto

   θ Ndugu

   θ Mzazi

   θ Mwenzi θ

   θ Babu

   θ Nyingine (tafadhali taja)

   _____

2. Jinsia yako ni nini?

   θ Mwanaume

   θ Mwanamke

3. Kiwango chako cha umri ni kipi?

   θ Miaka 18-34

   θ Miaka 35-44

   θ Miaka 45-54

   θ Miaka 55-64

   θ> miaka 65

4. Kiwango chako cha juu cha elimu ni kipi?

θ Msingi

θ Sekondari

θ Chuo

θ Chuo kikuu

θ Hakuna

5. Kazi yako ni nini?

θ Mfanyakazi wa serikali

θ Mfanyakazi wa sekta binafsi

θ Kujiajiri

θ Mfanyakazi wa kawaida

θ Kukosa ajira

SEHEMU YA 2: UTENGENEZAJI WA KITENGO.

1. Unaonaje hali ya hewa ndani ya ICU?

4 Bora

3 Nzuri

2 Haki

1 Maskini

2. Je, unaonaje anga katika chumba cha kusubiri?

4 Bora

3 Nzuri

2 Haki

1 Maskini

3. Je, unaona kelele za vifaa vya ICU zinasumbua?

   4 Daima

   3 Mara nyingi

   2 Mara chache

   1 Kamwe

4. Je, unaona kelele za wageni wa wagonjwa wengine zinasumbua?

   4 Daima

   3 Mara nyingi

   2 Mara chache

   1 Kamwe

5. Maoni mengine yoyote? ___. . . . .

   . . . .

   . . . .

   . . . .

   . . . .

   .. . .

   . . . .

   SEHEMU YA 3. MTAZAMO JUU YA HUDUMA UNAYOPEWA MGONJWA

6. Je, unaonaje ujuzi wa wauguzi wa ICU?

4 Bora

3 Nzuri

2 Haki

1 Maskini

7. Je, wauguzi wa ICU wanampima mgonjwa wako vizuri kiasi gani?

   4 Bora

   3 Nzuri

   2 Haki

   1 Maskini

8. Je, wauguzi wa ICU wanasimamia vyema dalili za mgonjwa wako?

   4 Bora

   3 Nzuri

   2 Haki

   1 Maskini

9. Je, unaionaje huduma ya uuguzi inayotolewa kwa mgonjwa wako na wauguzi wa ICU?

   4 Bora

   3 Nzuri

   2 Haki

   1 Maskini

10. Maoni mengine yoyote?.....

    .....

    .....

SEHEMU YA 4: MTAZAMO JUU YA KUSHIRIKISHWA KATIKA UTUNZI WA MGONJWA.

1. Je, wauguzi wa ICU wanakupa maelezo kuhusu hali ya mgonjwa wako?

   4 Daima

   3 Mara nyingi

2 Mara chache

1 Kamwe

2. Je, wauguzi wa ICU wanakupa fursa ya kushiriki katika kumhudumia mgonjwa?

4 Daima

3 Mara nyingi

2 Mara chache

1 Kamwe

3. Je, unahisi kana kwamba umejumuishwa katika kufanya maamuzi kuhusu usimamizi wa mgonjwa wako?

4 Daima

3 Mara nyingi

2 Mara chache

1 Kamwe

4. Maoni mengine yoyote?

.....

.....

.....

SEHEMU YA 5: MTAZAMO JUU YA MSAADA WA NDUGU KATIKA KITENGO.

1. Je, kwa maoni yako, wauguzi wa ICU wanaonyesha kupendezwa na mahitaji yako?

4 Daima

3 Mara nyingi

2 Mara chache

1 Kamwe

2. Kwa maoni yako, unaweza kukadiria vipi usaidizi wa kihisia unaotolewa kwako na wauguzi wa ICU?

   4 Bora

   3 Nzuri

   2 Haki

   1 Maskini

SEHEMU YA 6: UZOEFU WA KUWA NA JAMAA AKIWA ICU

3. Je, unaweza kukadiria vipi uzoefu wako wa jumla wa kuwa na mgonjwa katika ICU hii?

   4 Bora

   3 Nzuri

   2 Haki

   1 Maskini

4. Je, unaweza kutathmini vipi uzoefu wako wa jumla wa utunzaji unaotolewa kwa mgonjwa wako na wauguzi wa ICU?

   4 Bora

   3 Nzuri

   2 Haki

   1 Maskini

5. Je, unaweza kukadiria vipi uzoefu wako wa jumla wa kuhusika kwako katika utunzaji unaotolewa kwa mgonjwa wako na wauguzi wa ICU?

   4 Bora

   3 Nzuri

2Haki

1 Maskini

6. Je, unaweza kukadiria vipi uzoefu wako wa jumla wa usaidizi unaotolewa kwako na wauguzi wa ICU?

4 Bora
3 Nzuri
2 Haki
1 Maskini

11. Je, unayo maoni mengine?

.....

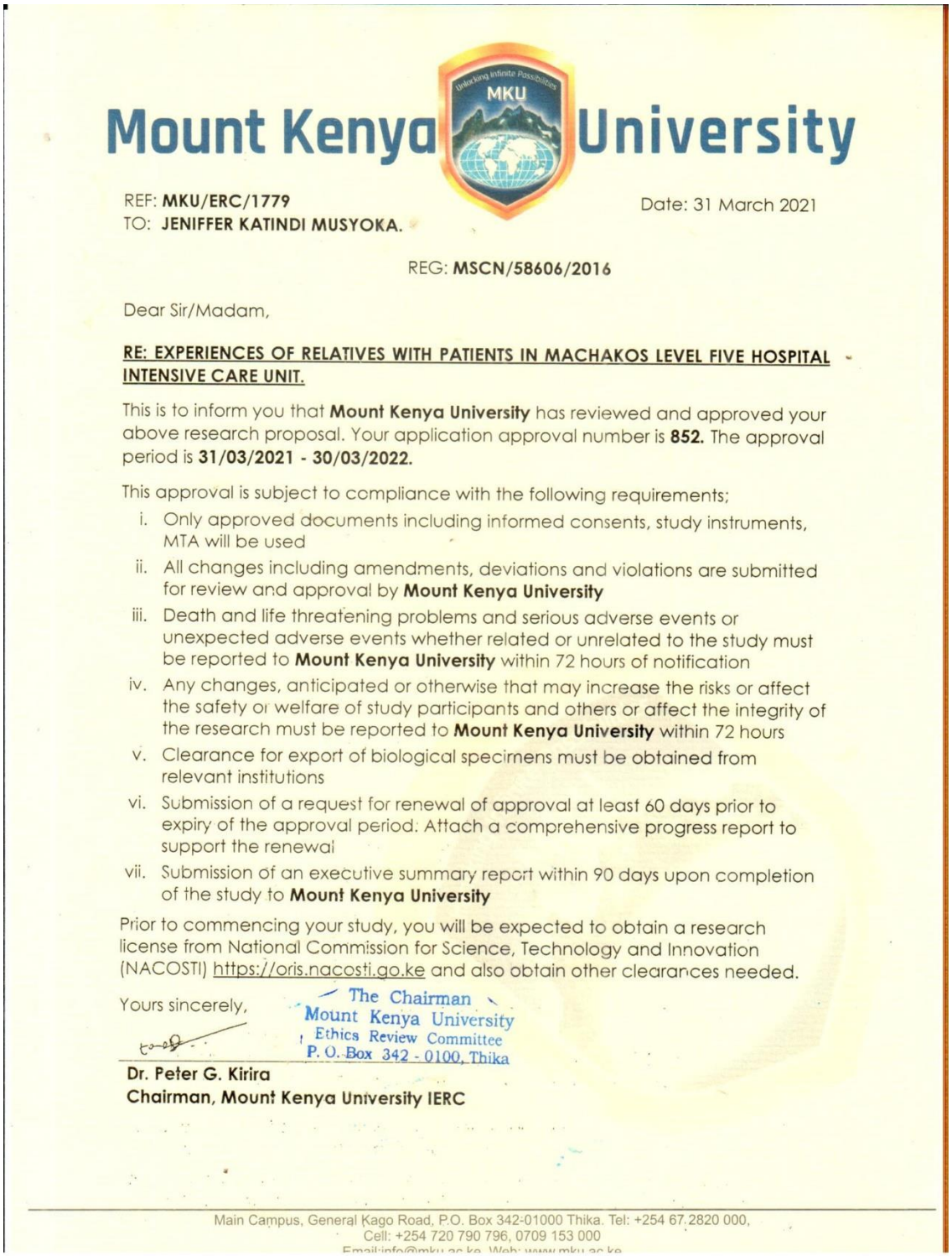
.....

.....

.....

ASANTE KWA USHIRIKI WAKO

Appendix VI: ERC Letter



Mount Kenya University

REF: **MKU/ERC/1779**
TO: **JENIFFER KATINDI MUSYOKA.**

Date: 31 March 2021

REG: **MSCN/58606/2016**

Dear Sir/Madam,

RE: EXPERIENCES OF RELATIVES WITH PATIENTS IN MACHAKOS LEVEL FIVE HOSPITAL INTENSIVE CARE UNIT.

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **852.** The approval period is **31/03/2021 - 30/03/2022.**

This approval is subject to compliance with the following requirements;

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

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

Yours sincerely,

The Chairman
Mount Kenya University
Ethics Review Committee
P. O. Box 342 - 0100, Thika

Dr. Peter G. Kirira
Chairman, Mount Kenya University IERC

Main Campus, General Kago Road, P.O. Box 342-01000 Thika. Tel: +254 67 2820 000,
Cell: +254 720 790 796, 0709 153 000
Email:info@mku.ac.ke Web: www.mku.ac.ke

Appendix VII: Postgraduate Letter

Mount Kenya University

DIRECTORATE OF GRADUATE STUDIES

MSCN/58606/2016

8th June, 2021

The Director, Research Coordination Division
National Commission for Science, Technology & Innovation
Utalii House, 8th & 9th Floor
P O Box 30623- 00100
NAIROBI

Dear Sir/Madam,

RE: JENIFFER KATINDI MUSYOKA – REGISTRATION NO. MSCN/58606/2016

The purpose of this letter is to introduce the above named student who is pursuing **Master of Science in Nursing** in the **Department of Nursing Education, Leadership Management & Research** in the **School of Nursing.**

The title of her research is ***"Experiences of Relatives with Patients in Machakos Level Five Hospital Intensive Care Unit."***

She has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data for her research between **June and August, 2021.**

Any assistance accorded to her will be highly appreciated.

Thank you.

Mount Kenya University
P. O. Box 342 - 01000, THIKA
Office of the Director
Graduate Studies

Dr. Samuel M. Karenga, Ph.D
Director, Graduate Studies
Enc.

Appendix VIII: NACOSTI Authorization

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **520324**

Date of Issue: **12/August/2021**

RESEARCH LICENSE

This is to Certify that Ms.. JENIFFER KATINDI MUSYOKA of Mount Kenya University, has been licensed to conduct research in Machakos on the topic: EXPERIENCES OF RELATIVES WITH PATIENTS IN MACHAKOS LEVEL FIVE INTENSIVE CARE UNIT for the period ending : 12/August/2022.

License No: **NACOSTI/P/21/12301**

520324

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix IX: Study Area Map