INTENSIVE CARE SURVIVORS' EXPERIENCES DURING ACUTE HOSPITALIZATION IN CRITICAL CARE UNIT KENYATTA NATIONAL HOSPITAL

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DECLARATION

I, **Jael Ochieng,** declare that this research study is my original work and has not been presented in any other institution for examination purposes.

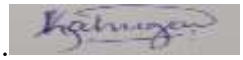
Signature… Date 26th November 2021.

Jael Ochieng

Reg. no: H56/11421/2018

CERTIFICATE OF APPROVAL

This research study has been submitted with approval of the University supervisors.

Signature …  Date26th November, 2021

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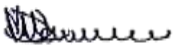
Signature  Date 26th November, 2021

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DEDICATION

This study is dedicated to all staffs who work in the Critical Care Unit, Kenyatta National Hospital and other Intensive Care Units in Kenya for their zeal to always ensure that the very critically ill patients are taken care of in the best ways possible.

I also dedicate this study to my family for their patience, endurance and understanding during my academic journey.

To all those who have been critically ill, you are heroes and may the Almighty God continue protecting you.

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ABBREVIATIONS AND ACRONYMS

CCU	Critical Care Unit
COVID-19	Coronavirus disease 2019
DOA	Date of Admission
DOD	Date of Discharge
EEG	Electroencephalography
GCS	Glasgow Coma Scale
ICU	Intensive Care Unit
KNH	Kenyatta National Hospital
LOS	Length of Stay
PTSD	Post-Traumatic Stress Disorder
SAPS	Simplified Acute Physiology Score
UoN	University of Nairobi
WHO	World Health Organization

OPERATIONAL DEFINITIONS

Acute hospitalization - Refers to being admitted in hospital as a result of an acute illness.

Acute illness - Refers to a disease with an abrupt onset and, usually, a short course.

Cognitive experiences - Is any difficulties, needs and/or changes in mental functioning of the post ICU care patients during the acute hospitalization period.

Critical care - Is specialized treatment or medical care for patients with life-threatening injuries and illnesses.

Critical care team - Refers to a team of health care professionals who care for critically ill and injured patients.

Intensive care unit - Refers to a unit in a hospital that caters for patients with acute illness or injury and who require specialized procedures and treatments by specialized medical staff. It is also referred to as the critical care unit.

Intensivist - Is a critical care physician whose medical practice is focused entirely on the care of critically ill and injured patients.

Perception of care- Refers to the view regarding the level and degree of care received from the health care team by post ICU care patients during acute hospitalization period.

Physical experiences - Is any difficulties, needs and/or changes in physical activity capacity or the ability to perform physical activities, of the post ICU care patients, during the acute hospitalization period.

Post ICU care patient - Is a patient who has been discharged from the intensive care unit.

Psychosocial experiences - Refers to any mental and social related difficulties, needs and/or changes faced by the post ICU care patients during the acute hospitalization period.

ABSTRACT

Background: Majority of intensive care survivors suffer physical and psychosocial traumatic experiences during acute hospitalization. A prolonged ICU stay influences the quality of life through stressful memories that affect the physical, mental and social wellbeing. ICU care is costly and these impairments may vary in severity, lasts for years and can greatly affect the lives in ICU survivors. These impairments are recognized as public health burdens and are related to clinical conditions, treatments provided, and stressful factors during ICU care. These patients are fraught with challenges, for which they receive little or no support or preparation.

Main objective: To explore intensive care survivors' experiences during acute hospitalization in Critical Care Unit, Kenyatta National Hospital.

Method: This was a descriptive phenomenological qualitative study to investigate intensive care survivors' experiences during acute hospitalization in the intensive care unit, Kenyatta National Hospital. Purposive sampling method was used to identify study participants (patients discharged home post ICU care). Ten (10) participants were included in the study. Data was collected from participants using an in-depth interview guide and participant observation. The interviews were audio-taped and transcribed verbatim and common themes identified iteratively. Data analysis was done thematically by use of Nvivo software.

Results: Five major themes emerged from analysis: Reminiscence of ICU experience, Interaction with the ICU environment, adverse psychosocial experiences, quality of care and enabling practice.

Recollection of ICU experiences found that majority of the participants could remember the experiences they had in ICU. Most of them reported positive experiences which related to interaction with healthcare providers and the environment. Only few of the participants reported knowing when they were being admitted in ICU from theatre.

Majority of the participants had positive interaction with physical environment derived from the cleanliness of the ICU, responsive nature of many of healthcare providers and commitment to meeting patient needs. Further, noise from staff, machines, needle punctures and constant change of diapers were the most common stressors among ICU patients. Psychosocial experiences included trauma experiences, period of delirium and feeling helplessness.

Majority of the participants reported high level of confidence in quality of care provided and having received respectful care while in ICU. Challenges in delivery of quality care involved just a few healthcare providers who did not practice respectful care.

Conclusion and recommendation: The findings have shown that the quality of care in ICU is relatively high although there are major challenges that need to be addressed in improving the quality of care. Thus, conduct training and workshops for health care providers on dealing with critically ill patients to avoid mishandling of patients. Increasing the number of counsellors and psychologists in ICU to control the occurrence of psychosocial issues which are highly prevalent will be essential in improving ICU patient experiences.

1. CHAPTER ONE: INTRODUCTION

1.1 Introduction

Intensive care units are departments in the hospital that provide specialized care for patients with life threatening conditions, who require constant, close monitoring and support from specialized equipment and medication. While technological advances in critical care medicine have led to dramatic improvements in patient survival, majority of patients who survive post ICU care suffer traumatic experiences anchored to their critical illness experience.

This study has been done to investigate the experiences of intensive care survivors during acute hospitalization at Kenyatta National Hospital. This chapter discusses the background information about intensive care survivors' experiences during acute hospitalization, statement of the problem, study justification, significance of the study and the research questions.

1.2 Background Information

Majority of intensive care survivors suffer traumatic experiences during acute hospitalization. A prolonged ICU stay influences the quality of life through stressful memories that affect the physical, mental and social wellbeing (Svenningsen et al., 2017). Several factors have been related to stress patients during ICU care. These are physical and psychological factors. Physical factors include pain, sleep disturbances, general and endotracheal tube discomfort, noise, thirst, headache, difficulties in swallowing and communication, being bedridden and daily needle punctures. Psychological factors include anxiety, hallucination, dreadful dreams, depression, feelings of isolation, and fears of unknown and of death (Pieris et al., 2018; Aitken et al., 2016; Topcu et al., 2017). In a study done by lake, van Genderen & Schut et al., (2020), more than half of all people who survive post ICU care will have either physical or mental problems, which can greatly affect their lives. According to Harvey and Davidson (2016), cognitive impairment, psychiatric illnesses and new physical impairment may vary in severity and lasts for years in ICU survivors. All these impairments are recognized as public health burdens and are related to clinical conditions, treatments provided, and stressful factors during ICU care (Rawal et al., 2017).

ICU care is costly and the post ICU care patients are more likely to be discharged to long-term care (Reardon et al., 2018). The average daily cost of ICU stay is three times higher than the stay in general hospital wards (Canadian institute of health information, 2016). A majority of ICU survivors face some problems returning to work with a third experiencing major occupational changes, and a quarter of them becoming completely jobless (Kamdar, et al., 2020). These disorders can be prevented early during ICU care for example by minimizing sedation and early mobilization in order to improve quality of life in ICU survivors (Rawal, Yadav & Kumar, 2017). However, these patients are fraught with challenges, for which they receive little or no support or preparation (Scheunemann et al., 2019).

Consequently, a study has been done to investigate intensive care survivors' experiences during acute hospitalization which are fundamentally indicative of the quality of care.

1.3 Problem Statement

Patients who are admitted to ICU with critical illness face traumatic experiences that may affect them for a long time. The patients remain with the critical condition for varying lengths of time needing either mechanical ventilation or hemodynamic support (Loss et al., 2017). While the survival rates in ICU are low (Siddiqui & Shahla, 2015), technological advances in critical care medicine have led to dramatic improvements in patient survival (Shanafelt et al., 2016). Despite these patients having survived life threatening illness, most of them have post-traumatic stress disorder influencing daily performance. It is of great importance to prevent these disorders early during ICU care for example by minimizing sedation and early mobilization in order to improve quality of life in ICU survivors (Rawal, Yadav, & Kumar, 2017).

The ICU admission is often sudden and unexpected. In an attempt to increase survival and improve comfort, the patients may receive various types of sedatives and analgesic agents. Sudden events lead to patients being admitted in the ICU hence majority of the patients are not aware of their state during either their entire ICU stay or their initial periods in ICU. (Topcu et al., 2017). None the less, they continue to experience emotions full of nightmares and delusions associated with real events. They may end up developing anxiety, depression or post-traumatic stress disorders (Hatch, Young,

Barber, et al., 2018). These events are likely to occur after discharge and need to be explored.

Recovery from critical illness is a slow and complex process. Some of the patients do not return to their pre-illness levels for many months (Detsky et al., 2017). Muscle fatigue, pain and other complex physical conditions are common post discharge (Choi et al., 2014). These can lead to cognitive impairments and impede the ability of the patient to return to normal life after recovery. The memories of their time in ICU could also lead to sleep disturbances (Altman et al., 2017) or at best mental discomfort. Some suffer survivor's guilt (Maley et al., 2016) and even though they consider discharge from the hospital as a sign of progress, they have trouble reintegrating to the society and struggle with resumption of their role in family (Norman et al., 2016).

As the number of ICU survivors increase, the issue of post traumatic distress associated with the admission is becoming a public health issue. While the in-hospital care is organized, the post discharge care is fragmented and the survivors are not followed up. An understanding of the patients' experiences can help in identification of any dysfunction in this category of patients. The purpose of this study has been therefore to explore and describe the experiences of intensive care survivors' experiences during acute hospitalization at KNH.

1.4 Justification of the Study

Kenyatta National Hospital being the largest in East and Central Africa serves a very large population within the country and the surrounding regions. The mission of Kenyatta National hospital is to provide quality health care and therefore anything affecting the quality of health of patients during ICU care also affects the achievement of the hospital's provision of quality care. At Kenyatta National hospital, a multidisciplinary team is playing a major role in caring for patients who are critically ill until discharge from the critical care unit. It has been therefore necessary to investigate the intensive care survivors' experiences during acute hospitalization.

Intensive care survivors' experiences during acute hospitalization had not been studied at Kenyatta National Hospital and yet it occurs. Issues of survivorship post ICU care are rarely addressed and care coordination is often lacking for survivors. Despite these patients having survived life-threatening illness, most survivors suffer after discharge

from hospital related to either care provided, the medication administered or their critical illness, therefore their experiences has been studied so that existing challenges are addressed in order to improve their quality of life.

1.5 Study objectives

1.5.1 Main objective

To explore intensive care survivors' experiences during acute hospitalization in CCU, KNH.

1.5.2 Specific objectives

1. To determine the physical experiences of post ICU care patients during acute hospitalization in CCU, KNH.
2. To find out the psychosocial experiences of post ICU care patients during acute hospitalization in CCU, KNH.
3. To identify the perceptions of care received by post ICU care patients during acute hospitalization in CCU, KNH.

1.6 Research Questions

1. What are the physical experiences of post ICU care patients during acute hospitalization in CCU, Kenyatta National Hospital?

2. What are the psychosocial experiences of post ICU care patients during acute hospitalization in CCU, Kenyatta National Hospital?

3. What are the perceptions of care received by post ICU care patients during acute hospitalization in CCU, KNH?

1.7 Significance of the study

The findings of this study will be useful in improving on the quality of health care provision in CCU, Kenyatta National Hospital. The assessment of intensive care survivors' experiences during acute hospitalization in critical care unit, Kenyatta National Hospital will provide important information for further education in order to enhance ICU care. ICU care education will increase the ICU multidisciplinary staffs'

confidence during performance. Understanding intensive care survivors' experiences during acute hospitalization is critical for developing stakeholder driven clinical guidelines for ICU care. The findings are expected to be presented to the head of department, unit nursing officer in charge to be used as evidence-based advice towards improving the ICU staff practices for quality patient care. The findings will also be used to initiate policy and guidelines, for advancement of ICU care among patients and critical care multidisciplinary staffs at Kenyatta National Hospital. These research findings are expected to shade light as referent point by any stakeholder who will need to improve the ICU care services among the critical care multidisciplinary staffs, the patients, the patient caregivers and the community as a whole.

1.8 Theoretical framework

This study applies the theoretical framework of Meleis Transitional theory. This theory offers a paradigm for describing the experience of people who are confronted with, living with, and coping with an event, a condition, or a stage in their growth and development that necessitates new abilities, attitudes, goals, behaviors, or functions. Transition is referred to as the passage from one life phase, condition, or status to another, is a multiple concept embracing the elements of process, time span, and perception (Chick & Meleis 1986) Transition outcome is essentially positive because it signifies that a person has reached a point of greater stability relative to what has gone before (Chick & Meleis 1986)

Health and illness, developmental, situational, and organizational situations trigger a transition experience and are characterized by some type of change. Health and illness transitions initiate a diagnosis or an intervention process, followed by uncertain processes and fears about the outcomes. Developmental transitions are age and roles. Situational transitions are the way one encounters and responds to changes such as being admitted or discharged from the hospital. Organizational transitions refer to changing environmental conditions that affect the lives of clients and workers. Patterns of transitions are multiple and complex.

Transitions are characterized by time span, process, disconnectedness, awareness, and milestones properties. Time span, begins from the moment a situation comes to the awareness of an individual but the end is fluid- it may be determined when an ultimate

aim is met. Process: The experience is a dynamic and fluid process. Disconnectedness: The transition experience reflects a disruption in a person's feeling of security associated with what is known and familiar. Awareness: Important aspects to consider for oneself and others are perception, awareness, defining and redefining of the significance of the change. Milestones: Understanding the phases of the transition process, as well as determining the best assessment and intervention points. Transition theory aims to define triggers, anticipate experience, forecast results, and provide intervention strategies.

Transition conditions are circumstances that facilitate or hinder progress towards achieving a healthy transition, and are influenced by those circumstances surrounding an individual, community, society, or the universe. Individuals, families, and organizations respond to a change event by process patterns and outcome patterns. In transitions theory, the objective of intervention is to support and influence healthy process and outcome responses. Clarifying meanings, offering expertise, defining goals, modeling the role of others, offering resources, opportunities for rehearsal, access to reference groups and role models, and debriefing are all nursing interventions that enhance good process and outcome behaviors.

Use of Melei's transitional theory as a theoretical framework enables the researcher to explore the different experiences of intensive care survivors' during acute hospitalization. The researcher will then identify the needs of the patients accurately, understand the types of transitions they experience and their complexity, with an aim of addressing them and make the patients cope during their transition period.

In this study the researcher explored the intensive care survivors' experiences during acute hospitalization by asking them to describe and give an account of their own experiences. Each participant described his/her experience in her own words. The researcher identified the patients' needs, types of transitions and their complexity with an aim of addressing them.

2. CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Literature search was done to provide an overview of theories, ideas and other significant literature currently published on intensive care survivors' experiences during acute hospitalization in critical care unit. Literature review is important because it enables the researcher to learn from previous theories, show where the study fits into the existing body of knowledge, illustrate how the topic has been studied and also to provide context to the research.

2.2 Search strategy

Literature review was done using data bases like PubMed, Google Scholar, Hinari and Cochrane. The search focused on studies done between 2016 and 2021. Search was done on studies published in English only.

2.3 Recollection of ICU experiences

There is no sample size that includes patients who remembered their entire intensive care period. Some patients remembered their intensive care period while others did not remember.

Possible reasons why patients were unable to recall their experiences in ICU was that they were either sedated or they were unconscious, and this study showed that majority of the participants received sedation and almost three quarters were unconscious. Moreover, sedation help patients to get rest especially at night (Telias, & Wilcox, 2019).

Patients who were less critically ill during their ICU stays, reported more factual memories while the most critical patients, prolonged mechanical ventilation and long periods of ICU stay frequently reported fragmented or delusional memories (Sanson, Lobefalo, & Fascì, 2021). It is in agreement with a prospective, multicenter study done in Portugal which suggested that most of the ICU survivors had memories of their ICU stay. Half of patients had factual memories, very few had delusional memories, and nearly half had both delusional and factual memories. (Orvelius et al., 2016)

Some treatments to the patient during the ICU stay interfere with the patient's memory after ICU discharge. Administration of deep sedation, corticoids and 50% glucose to treat hypoglycaemia contribute to the development of delusional memories and amnesia during the ICU stay. (Aitken et al., 2016).

A systematic review done in Turkey on patient experiences in intensive care units revealed that most patients recalled their intensive care period and they experienced more negative than positive incidences (Topcu et al., 2017). Another study done among Jordanian patients' showed that most patients were able to recall their ICU experience with high level of awareness to surrounding persons and relatives. In contrary, majority of patients perceived care to be good. (Alasad, Abu Tabar & Ahmad, 2015).

A study done in Malaysia showed slightly more than half of patients recalled their ICU experiences while slightly less than half disagreed that their memories were blurred (Mohamed et al., 2020). However, a multicenter study in Sri Lanka revealed that less than half of the patients in the study could recall their admission to the ICU. The patients found the level of health care received in the ICU to be "very satisfactory" with nobody reporting that he or she was not satisfied. (Pieris et al., 2018).

Memories of ICU stay is associated to higher perceived Health related quality of life suggestive of the need to have a targeted sedation level and daily awakening periods for ICU patients.(Orvelius et al., 2016).

It is therefore evident that majority of patients recall their ICU experiences.

2.4 Physical experiences in ICU

According to Topcu et al., (2017), physical experiences were pain, sleep disturbances, noise, headache, communication difficulties, discomfort and headache caused by medical activity and technology assistance.

In addition to the above physical experiences, in a multicenter study in Sri Lanka the most frequently reported stressful experiences were: being bedridden, pain, general discomfort and daily needle punctures (Pieris et al., 2018).

According to Mohammed et al., (2020), Most of the patients knew what was happening around them, felt safe, felt in control and slept more while in the ICU.

It coincides with a study done by Alasad et al., (2015) which showed that patients had high level of awareness to surrounding persons and to relatives even though more than half of the patients experienced pain during their stay in ICU.

Half of the participants felt safe in the presence of family members because of the sense of familiarity, whereas fewer participants felt safe and encouraged to recovery by the presence of staff whenever they needed help. (Pinyokham, Tachaudomdach & Ariffin, 2019). This result is corresponding with the study by Alasad et al., (2015) which reported that majority of the patients felt safe most of the time due to the presence of family members and staffs.

In regards to sleep, most of the patients recalled having enough sleep and claimed sedation or pain killers were the reasons behind it, while few claimed pain and noises from various sources disturbed their sleep. (Pinyokham, Tachaudomdach & Ariffin, 2018).

Hospitalized patients, particularly those who are critically ill, are known to have severe sleep fragmentation and disturbed sleep (Medic et al., 2017).

2.5 Psychosocial experiences in ICU

"As scientific knowledge, technology, and skills are further developed, let's try to develop our ''human'' side at the same time" (Alonso-Ovies, & Heras La Calle, 2021). Adverse psychological outcomes, following stressful experiences in critical care, affect up to half of patients (Wade et al., 2021). According to Serpil et al., (2017); Pieris et al., (2018), hallucinations, nightmares, fear, concern, anxiety, melancholy, loneliness, and thoughts about death, panic, anxiousness, uncertainty, and despair were among the psychological experiences.

Patients experienced dependence on health professionals, with inability to communicate, which caused them an emic vulnerability of anxiety, fear and loneliness. These experiences can be alleviated by the presence of health professionals and relatives with these patients. (Alasad et al., 2015; Pinyokham, Tachaudomdach & Ariffin, 2019)

Frightening memories are associated to ICU stress like pain, anxiety, and dreams. Delusional memories may originate from hallucinations and periods of delirium. These

may all be influenced by sedation, analgesia, and delirium management. (Train, et al., 2019). Patients may experience delirium, mainly due to exposure to sleep-altering medications, the structure of the ICU environment, aggravated pre-existing sleep disorder, and effects of acute illness (Telias & Wilcox, 2019).

The feelings of helplessness, being scared, feelings of dying, or pain in about a third of the participants was associated with illness progression, nightmares, seeing scary images and being afraid of dying. (Pinyokham, Tachaudomdach & Ariffin, 2019).

It is in agreement with another study where many patients stated that they had more frightening experiences during their stay in the critical care units related to pain and the feeling of helplessness. Even though in the same study, few patients reported frightening experiences caused by imagining death, being terrified, and having nightmares (Mohamed, et al., 2020).

Most of the studies above tally with a systematic review done in Europe on mechanically ventilated adult patients where majority reported being afraid, feeling supervised, feeling comforted, failing to communicate and experiencing difficulties in breathing (Khan & Nishi, 2021)

2.6 ICU survivors perceptions of care received in ICU

Perception of ICU care is generally based on patient's experiences while in the ICU. Stressful experiences is associated with dissatisfaction with care.

Majority of patients were satisfied with the level of health care received in the ICU (Pieris et al., 2018). Contrary, in a study most of the participants were dissatisfied with the care services. However, few participants claimed noise from various sources and pain disturbed them (Pinyokham, Tachaudomdach & Ariffin, 2019). It is in agreement with studies whose findings indicated that disruption in ICU patients' sleep was mostly due to noise from the environment and from medical devices alarm (Mohamed et al., 2020; Bani & Hayajneh 2018; Salous et al., 2017).

These not only affected their satisfaction towards care services, but also affected their sleep and rest patterns (Pisani et al., 2015). Therefore, critical care staff should ensure that only necessary activities or procedures are done at night (Pisani et al., 2015; Soh

et al., 2014), and provide a conducive environment including reducing the alarm volume and paying attention to any alarm as soon as possible with an aim of promoting a comfortable feeling among patients (Mohamed, 2020; Soh et al., 2014). To reduce constant disturbance, ICU staff should work as a team to plan and cluster patient's care (Mohamed, 2020). Use of modern ventilators with improved synchrony may also encourage sleep by reducing the frequency of awakenings (Rittayamai et al., 2016).

The study by Alasad et al., (2015) reported more than half of the participants wished to know more about what was happening while staying in the ICU. However, patients could not recall much about their experiences which indicated that patients did not receive information regarding their condition and environment. Speaking to all ICU patients is a reorientation and explanation method that has been linked to decreased delirium, shorter mechanical ventilation, and less sedative use (Karnatovskaia, Philbrick, Parker & Needham, 2016; Munro et al., 2017).

A study done by Sanson, Lobefalo & Fascì, (2021) showed that ICU environment is unfriendly and full of stress. Positive experiences were mostly linked to the nurses' instilling a sense of security. Privacy and dignity violations, a lack of empathy, not being understood, delays/lack of help, and total control by health care professionals were all mentioned as negative experiences. While in the ICU, patients portray vulnerability due to critical illness, being unconscious, lack of self-determination and the intensive care provided (Brown et al., 2018). Hence, the critically ill become totally dependent on the health care providers. Respect and dignity are essential at this time.

Nearly half of ICU survivors report pain as a major ICU stressor (Chamorro & Romera, 2015). Higher percentage of patients experience pain during routine procedures especially repositioning and suctioning (Ayasrah, 2016). Pain in ICU patients cause adverse hemodynamics and after discharge PTSD (Shaikh et al., 2018). However, pain should be treated based on care-related rather than changes in vital signs (Ayasrah, 2016).

Open visiting has been linked to reduced anxiety, PTSD, agitation, shorter ICU stays, greater patient/family satisfaction, and even increased patient safety (Chapman, 2016). Keeping the consequences of altered consciousness and decreased movement to a

minimum, can be achieved through minimizing sedation, reducing delirium, and promoting early physical therapy and mobility (Pun et al., 2019).

2.7 Summary of literature review

Majority of patients recall their ICU experiences, however, there is no sample size that includes all patients who remembered their entire intensive care period. Possible reasons why patients were unable to recall their experiences in ICU was that they were either sedated or they were unconscious. Majority of the patients knew what was happening around them. Pain and sleep disturbances were the most common physical experiences caused mainly by procedures and noise. Most patients experienced fear and anxiety which could be alleviated by communication to patients by health care providers and relatives. Perception of ICU care is generally based on patient's experiences while in the ICU. Stressful experiences is associated with dissatisfaction with care, while friendly experiences is associated with satisfaction with care. However, majority of patients were satisfied with the level of health care received in the ICU

It was important to conduct a study on intensive care survivors' experiences during acute hospitalization in critical care in Kenya given that Kenya is a developing world with challenges that are not similar to those experienced in the critical care units in the developed world or other developing countries.

3. CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter delineates the study methodology. It entails the following: study design, study site, target population, sampling and recruitment process, inclusion and exclusion criteria, the research instrument and data collection procedure, data management, data analysis, limitation of the study, ethical considerations and finally dissemination plans of the study results.

3.2 Study Design

This was a descriptive phenomenological study to investigate intensive care survivors' experiences during acute hospitalization. Descriptive phenomenology is a qualitative research that presents a unique opportunity for capturing the lived experience of participants. (Frechette et al., 2020). The flexibility of the approach encourages the spread of phenomena by emphasizing (a) the diversity of lived experience, (b) the opportunity to examine context, and (c) the connections to life narratives (Chan & Farmer, 2017). Qualitative research designs are suitable for understanding views and perceptions and help to discover new thoughts and individual views. The approach is also used to extrapolate experiences, meanings and perspectives of the study participants (Hammarberg, Kirkman & de Lacey, 2016). Qualitative method was appropriate for this study because individual perceptions and experiences are varied and in-depth individual interviews provide rich information regarding intensive care survivors' experiences during acute hospitalization.

3.3 Study Area

The research was conducted in critical care unit, Kenyatta National Hospital. Kenyatta National Hospital (KNH) is Kenya's largest teaching and referral hospital. It is situated about 3kms from the city centre of Nairobi. It is built on approximately 304 acres of land. KNH has the largest main critical care unit with a bed capacity of 21. It also has 8 other subsidiary ICU's namely Neonatal Intensive Care Unit, Paediatric Intensive Care Unit, medical ICU, Neurological ICU, Cardiology ICU, Reproductive health ICU, burns ICU and Prime Care ICU with an additional total bed capacity of 40. The main critical care unit is located on the first floor alongside the main operating theatres to the

left and EEG department to the right. It is directly opposite the burns unit and in front of the renal unit. The critical care unit operates under the specialized units department in the hospital. It is a multidisciplinary unit where patients of all ages except the neonates are admitted. Neonates are admitted in the neonatal intensive care unit. Majority of patients admitted to critical care unit are severe head injury patients mainly due to road traffic accidents and assaults. Other categories of patients admitted to the critical care unit include immediate post-operative patients following major surgeries e.g. cardiovascular and neurological operations, unstable patients who are critically ill from medical, surgical or gynecological conditions. The unit receives patients from within the hospital as well as from other hospitals in Kenya. Overall mortality averages 35% mostly traumatic brain injury. The unit is collectively run by Assistant Chief Nursing Officer in charge, consultant anesthetist/ intensivist as head of department and an administrative officer. Other staff members include resident doctors, nursing officers, nutritionists, physiotherapists, laboratory technologists, counselors, records clerk, biomedical engineers, support staffs and students. The nurses form the largest number of staff in the unit with a total number of 107 nurses, 90% of whom are trained critical care nurses.

3.4 Study Population

The study population for this study included all patients discharged home post ICU care

3.5 Selection of Participants

3.5.1 Inclusion Criteria

- The investigator recruited participants who were discharged home from hospital post ICU care and were willing to share their experiences (Moses & Korstjens, 2018).
- Participants who were 18 years old and above.
- Participants who were psychologically stable to give informed consent.
- Participants who were able to communicate in either Swahili or English

3.5.2 Exclusion Criteria

- Patients discharged post ICU care but were still in the wards because the patients would feel intimidated to share their experiences with honesty due to perceived fear of being victimized.
- Patients discharged from ICU with pre-existing neurological illness because the ability to recall is dependent on mental stability.
- Patients discharged from ICU who were on quarantine due to covid-19 disease because patients infected with covid-19 disease are psychologically distressed.

3.6 Sample Size

The sampling criteria for qualitative research studies recommend a sample size of 5 to 20 people (Gentles et al., 2015). As advised in phenomenological qualitative research, sample size is chosen by data saturation (Guest, Namey & Chen, 2020; Saunders et al., 2017). In this study, sampling was done until attainment of saturation and ended when no fresh information or ideas were unearthed. When choosing on sample size, researchers should take into account the complexity of particular instances as well as practical constraints such as time and money (Rubel & Okech, 2017).

3.7 Sampling Technique

Purposive sampling method was used to identify study participants (patients discharged home post ICU care). Eligible participants were invited to take part in the study. Purposive sampling is a non-probability sampling method in which subjects are chosen depending on population characteristics and the aims of the study.

3.8 Screening and selection of study participants

After receiving all approvals by ethics and research committee and the KNH to collect data, study participants were recruited from the community after discharge from the wards. Selection of participants was done from the CCU admission and discharge book of patients discharged from CCU to the wards. A follow up was done to the wards to identify patients discharged home from the wards as per the admission and discharge book. Contacts of the identified participants' next of kin were taken from the admission

and discharge book. The next of kin were contacted and requested to give the contacts of the participants. Confirmation of participants as the right participants was done on phone by asking the participants their names and their particulars and confirming with the ones from the records. The eligible participants selected were contacted by phone and invited to participate in the study.

3.9 Data Collection Instruments

Data was collected from participants using an in-depth interview guide. The tool was created by the researcher and subjected to peer review and expert opinion in order to ensure that it was accurate and valid. During interviews, the tool was used to collect data from post ICU patients discharged home. An audio recorder was used to record the interviews.

3.10 Data Collection Procedures

Eligible participants selected were invited to participate in the study. The details of the research was explained to the participants over the phone by the researcher. Appointments were made with participants who chose to participate in the study. The participants chose to be interviewed in different places convenient to them.

The researcher conducted in-depth interviews with one participant at a time, in a quiet environment and at a convenient time for the participant. Face to face interviews were performed in a clinic setting or a convenient location for the participants. The researcher established trust with the participants during the in-depth interviews by demonstrating respect, listening intently, and clarifying any issues that were unclear. The researcher explained the details of the research to the participants then obtained an informed consent for the interview and recording. After obtaining consent from participants, interviews were audio-taped. Member checks were done to confirm the information. Interview was conducted on each participant only once. Data gathering was conducted until the saturation point was reached. Field notes were created as a result of the researcher's observations during the in-depth interviews. Each participant was given a unique code depending on the position and the date of the interview and the interview recordings were saved in a password protected file in the researcher’s computer to avoid any unintentional loss. The credibility, transferability, and dependability methodologies were used to ensure trustworthiness. Credibility is ascertained by ensuring that the

research findings is a correct interpretation of the participants' original views through member checks and data triangulation. Transferability is ensured through detailed description to show that the research findings can be applicable to other contexts, circumstances or situations. Dependability involves participants' evaluation of the findings, interpretation and recommendations of the study such that all are supported by the data as received from participants of the study through audit trails.

3.11 Validity of the study

This is how accurate and truthful the research findings are. Validity of this study was ensured by applying the techniques of data triangulation, audit trails, member checking and peer referencing. Peer referencing was done by the researcher ensuring that her two research supervisors went through the audio records and the transcripts to check and verify that the transcripts are exactly what the participants said. Transcription was done by a trained and qualified personnel. An interview guide was also used to gather data. Recorded interviews and verbatim transcripts were discussed and shared with the research supervisors throughout the research process as part of audit trails. Throughout data collection, the researcher took notes for reference for non-verbal cues. Where the participant used a different language for example, Swahili, the researcher translated it to English. Member checking strategy was used to enhance the credibility of the data by asking the participants to listen to the recordings to confirm the information.

3.12 Data Management Plan

The data management plan entailed the description of the data entry and cleaning, data analysis and data storage.

3.12.1 Data Cleaning

The audio recorded data was transcribed verbatim daily after the interviews. All transcript printouts, any field notes or documents, and the patient's demographic information were gathered and labeled appropriately.

3.12.2 Data processing and analysis

The study population was defined using frequencies and percentages to summarize socio-demographic data and clinical characteristics. The transcribed data and

documented notes were arranged and filed immediately, as per the study objectives. This was to ensure there was no mix up during data analysis. Thematic analysis was used to make sense of the data as per each objective.

The researcher familiarized herself with the data by replaying and listening through all the audio-recorded interviews several times. Transcription of the original recordings was done verbatim by a trained and qualified transcriber together with the researcher. An independent transcription was done by the researcher to verify consistency of data in the transcripts as one of the verification processes to enhance trustworthiness. Different categories were identified and assigned codes so as to describe the content. As an analytic strategy, content analysis of data was done inductively through line by line manual coding process. The researcher read through the transcripts thoroughly then underlined words that appeared commonly under each research question. The words were then coded. Constant comparisons were made both during the interpersonal conversation of the interview as well as from field notes to develop patterns or themes from the codes, either from the words used or the most regularly offered phrases, while taking notice of the language, beliefs, and opinions of the participants. Eventually, the themes were defined and aligned with the study objectives to find implication and interpretation. Nvivo 11 software was used for data organization.

3.12.3 Data Storage

All interview notes, transcript print outs and audio recordings were anonymized by allocating continuous numbers to each participant. They were then locked away in a filing cabinet immediately. The keys to the filing cabinet was only handled by the principal researcher to ensure confidentiality. Any soft data entered in the computer was password protected and only accessed by the principal researcher.

3.13 Ethical Considerations

Respect for autonomy, beneficence, non-maleficence, and justice are four core ethical principles founded on philosophical criteria that was adhered to throughout the research process (Wagoro & Duma, 2018). The principal researcher received approval from the University of Nairobi school of Nursing Sciences to carry out the study. The proposal was forwarded to Kenyatta National Hospital/ The University of Nairobi Research and Ethics committee and was reviewed and approved in order to do the research at the

institution, approval number KNH-ERC/A/353. Permission was received from the nurse managers of critical care unit and the clinics- KNH. The researcher protected the participants from harm or perceived threat as a result of them being participants in the study by not manipulating them in any way. Respondents' anonymity and confidentiality was upheld by not writing the names of the participants on the questionnaires and keeping the data collected in form of questionnaires in a lockable cupboard accessible only by the researcher. Participation in the study was on a voluntary basis. The participant signed an informed consent after explaining to them the purpose of the study, the methods of data collection and the significance of the study and had the right to refuse or discontinue their participation at any point without any consequences. The researcher informed the participants that there would be no payment for their participation in the study.

3.14 Covid 19 Prevention Measures

To protect participants from corona virus disease (COVID-19), the researcher made sure that the interview area was sufficiently ventilated and large enough for participants to maintain the required social distance of one and a half meters apart. Cleaning and disinfection of the environment was ensured by using a disinfectant solution to clean the surfaces and floors of the ward on a regular basis. Environmental hygiene was maintained by cleaning and disinfecting the surfaces and floors of the ward on a regular basis by use of a disinfectant solution. Before the participants were ushered into the room, they were evaluated for any symptoms of acute respiratory illness like fever, rhinorrhea, nasal congestion, cough or sore throat. A brief history was also taken to rule out any recent travel outside the country, any contact with a COVID-positive patient or any signs and symptoms of COVID-19 disease. The researcher also made sure that all participants were wearing disposable surgeon's masks at all times, had soap and running water to wash their hands, or alcohol-based hand-scrubs with at least 70% alcohol, and that they practiced frequent hand hygiene to limit or prevent transmission from one person to the other. All patients received a health talk about respiratory hygiene and cough etiquette, restrictions on movement within the institution and visits to the hospital, as well as how to properly wear face masks to prevent cross infection. As needed, appropriate personal safety equipment was used. The study participants were

also encouraged and guided to receive Covid-19 vaccine. The researcher had also been fully immunized with COVID-19 vaccine (2 doses) for infection prevention.

3.15 Dissemination Plan

The research findings will be disseminated to The University of Nairobi, School of nursing sciences, where a copy of the study results will be availed in the library repository. The findings will also be presented to the management of KNH-CCU, KNH research department and in conferences. Copies of the study results will be given to KNH-UON research and ethics committee and published in peer-reviewed journals.

4. CHAPTER FOUR: RESULTS

4.1 Introduction

This study sought to explore intensive care survivors' experiences during acute hospitalization in critical care unit at Kenyatta National Hospital. The specific objectives that were investigated in the study included determining the physical experiences, psychological experiences and perceptions of care received by post ICU care patients. Saturation was reached at 10 respondents who have been included in the analysis.

4.2 Demographic characteristics of the participants

The demographic characteristics of the participants who were involved in the study were investigated as shown in Table 1. The findings revealed that 60% (n =6) of the participants were female. Regarding age, most of the participants, 60% were above 40 years. Majority of the participants, 80% (n =8) were married. The participants who had number of children more than 2 were 70%. The results established that 80% (n=8) of the participants were staying with their families. 50% (n=5) of the respondents had tertiary level education, 30% (n=3) had primary level while 20% (n=2) had secondary level education. Regarding employment status, 50% (n=5) were self-employed, 40% (n=4) were formally employed while 10% (n=1) were unemployed. On monthly income, 60% (n=6) of the participants had < Ksh 50,000. Majority of the participants, 60% (n=6) had no comorbidities, 20% had hypertension while diabetes and HIV were at 10% each. Concerning the length of stay in ICU, majority of the participants, 80% (n=8) stayed for less than 7 days while in the ward 60% (n=6) stayed for less than 30 days. Only 3 participants were put on mechanical ventilation with 2 lasting less than 5 days. Most participants, 80% (n=8) had a GCS score of 15 on admission. However, on discharge all of the participant had a score of 15. Regarding sedation, 30% (n =3) were

sedated. The findings also showed that there was no participant on inotropic support and all participants had varied diagnosis.

Table 1: Demographic characteristics

Demographic characteristics	Frequency	Percent
Gender		
Male	4	40
Female	6	60
Age		
Less than 40 years	4	40
>40 years	6	60
Marital status		
Single	1	10
Married	8	80
Divorced/Separated	1	10
Number of children		
<2 children	3	30
>2 children	7	70
Patient stay with family		
Yes	8	80
No	2	20
Education level		
Primary	3	30
Secondary	2	20
Tertiary	5	50
Employment status		
Employed	4	40
Self employed	5	50
Unemployed	1	10
Monthly Income		
<Ksh 50,000	6	60
≥Ksh 50,000	4	40
Comorbidities		
Diabetes	1	10
Hypertension	2	20
HIV	1	10
None	6	60
Length of stay in ICU		
<7 days	8	80
≥7 days	2	20
Length of stay in the ward		
<30 days	6	60
≥30 days	4	40

Days on Mechanical Ventilation		
<5 days	2	67
≥5 days	1	33
GCS score on admission		
Score of 15	8	80
GCS score on discharge		
Score of 15	10	100
Sedation		
Yes	3	30
No	7	70
Inotropic support	0	0

4.3 Data coding

In preparation for data analysis, the researcher wrote field notes during the interviews noting any non-verbal cues. This record was in one note book and served as the research log. Participant identification code was also developed including the month, position of the interview and the date. All interviews were recorded using a tape recorder and indicated the start and stoppage time in the research journal which enabled easy comparison of times with those in the recorder. The recorded interviews were saved in a password protected folder in the computer to avoid inadvertent loss.

There were five major themes that were identified. They include, Reminiscence of ICU experience, Interaction with the ICU environment, negative psychosocial experiences, perceived quality of care and enabling practice. The sub themes have been identified as follows:

Theme 1: Reminiscence of ICU experience

- Knowledge of ICU setting
- Positive interaction with healthcare professionals in ICU

Theme 2: Interaction with ICU environment

- Pleasant ICU Experiences
- Stressors

Theme 3: Negative psychosocial experiences

- Terrifying memories
- Periods of delirium
- Feeling of helplessness

Theme 4: Perceptions on quality of care

- Respectful care delivery
- Level of care
- Powerlessness

Theme 5: Enabling practice

- Clinic attendance
- Need for improvement

4.4 Theme 1: Reminiscence of ICU experience

The participants in the study presented varied initial experiences when they were brought into the ICU. Majority of the respondents were knowledgeable about the surrounding ICU environment while some were unable to provide meaningful response regarding whether they were aware of ICU admission. The findings also revealed that some of the participants did not have a clear reminiscence of the ICU experience. They attributed this to anaesthetic drugs given and the nature of their condition.

4.4.1 Subtheme 1: Knowledge of ICU setting

Most of the participants asserted that they were aware of the ICU setting during their stay at the hospital. Some of them knew that they were in ICU when they heard sound of the machines while others knew that they were in ICU when they saw few patients and reduced activity with many patients lying motionless.

Participant 2 asserted that, "Yes, I can remember. I knew because the machines were beeping, patients sleeping and I just realized I was in ICU." Another participant equipped, "Yes, I can remember. When I woke up, there were not many people there as it were in the wards that's when I realized I was in ICU." **(Participant 3). Participant 9** stated that, "yes, I can remember. I remember seeing many critical patients and prayed not to be intubated" One of the participants stated that, "The only thing I remember is before the operation, I was given some medication and slept only to wake up in ICU, I did not even remember leaving theatre and how I was admitted into ICU. However, I came to my senses when I was almost discharged from the ICU ward" **(Participant 4).** Another one equipped that, "You know, as am telling, when you get to ICU, things come as if you are dreaming. Some of the things you are unable

to understand because of the condition. When I woke, I felt like I had been placed inside a drum with a lot of pipes, when you want to wake up you are prevented from doing so." **Participant 5.** Another participant stated, "I partially remember the initial treatment while I was in ICU. My condition could not allow me to be cognisant of the most activities in ICU" **(Participant 8).**

4.4.2 Subtheme 2: Positive interaction with healthcare professionals in ICU

Healthcare providers in the ICU made the experience of most of the participants good. They were informing the patients where they were and helping them with anything that they needed. **Participant 1** stated that, "The environment in the ICU was good not bad, nurses and doctors who attended to me were nice and were taking very good care of me while in the ICU." Another one added that, "First I called a doctor because I was hungry, he came and asked me, will you take milk or porridge? I said both. He brought porridge first. After finishing porridge, I was given milk. He stood there the whole time as I was eating. Once I finished, I was still not satisfied and I asked for more. He brought rice and chicken. However, when I was going to put food in my mouth, I realized I am unable to move my mouth." **Participant 2. In addition, participant 7** affirmed that**,** "It was very good and anytime that you would be in need they responded very quickly. I remember when I was feeling pain, I called a doctor and he quickly came and addressed my issue."

However, some of the patients felt that the interaction with healthcare professionals was not up to the required standards since they were not highly satisfied. **Participant 6** asserted that, "I can't really tell because my eyes could not open and even hear. I started hearing when I was almost discharged from ICU. However, I felt that the healthcare providers should protect patients more especially providing warm clothes."

4.5 Theme 2: Interaction with Physical environment

The study also sought to investigate the physical environment based on the participant experiences in ICU. The interaction with physical environment in the ICU was described based on pleasant experiences, unpleasant experiences and stressors.

4.5.1 Subtheme 1: Pleasant experiences

Most of the respondents reported having positive interaction with physical environment. They felt that the environment was conducive for their stay with little or no challenges. Key positive experiences were derived from the cleanliness of the ICU, responsive nature of many of healthcare providers and commitment to meeting patient needs. **Participant 1** stated that, "My physical experience was okay and I did not feel any pain while in the ICU. The environment was very quiet and was conducive." **Participant 2** stressed further that, "My physical experience was okay and I did not feel any pain while in the ICU. When I was being discharged from ICU, I did not have any pain. I just felt my body was very fine." **Participant 3** expressed that "My physical experience was good, I did not have any issues. All the experience I had were positive." **Participant 4** expressed that, "I can say it was enormously very god experience, very good people with vast knowledge and positive knowledge. They were always there for me." **Participant 5** added that, "I can say it was good considering that I went there and I was discharged." **Participant 7** complimented, "they were taking good care of me even at night at regular intervals." **Participant 9** stressed that, "The healthcare professionals were doing everything they could to provide me with good care which I was happy about". **Participant 10** stated that "There was no noise or disturbance at all. I was not in pain. Everything was okay."

4.5.2 Subtheme 2: Stressors in ICU

Some of the participants stated that there were incidences where they had negative physical experiences. Some of the issues identified included unresponsive or harsh staff, noise from healthcare workers and privacy concerns. **Participant 2** identified that, "A part from the lots of noise, I did not have any negative experience. When healthcare providers came to perform procedures such as put fluids, change of diapers when am soiled really interfered with my sleep and I felt it was negative experience. The lights were always on which was not important. However, every time they came to perform a procedure, they always provided an explanation before performing the procedure." **Participant 4** stated that, "Good, but there are times you feel that your privacy has been interfered with because the nurses were doing everything since I was dependant on them in provision of care. Although my privacy was taken away because

I was always dependent and I was not quite comfortable." **Participant 6** also asserted that, "I used to feel very cold and minimal pain. However, for pain, I was receiving care. However, the medications that I was being given had adverse effect on me." **Participant 9** further highlighted that, "a key stressor for me was the knowledge that I was in ICU was really stressing. However, after talking to the doctor, I was really encouraged because he was open to me and told me to trust in God."

4.6 Theme 3: Negative psychosocial experiences

Participants in the study were asked on key psychosocial challenges that they experienced while in the ICU. Majority of the participants highlighted that they had psychosocial challenges while they were in ICU. The psychosocial challenges included terrifying memories, periods of delirium and feeling of helplessness.

4.6.1 Subtheme 1: Terrifying memories

Participants in the study reported traumatizing experiences while in the ICU which affected their psychosocial wellbeing. These experiences included watching people die and having nightmares while in the ICU. **Participant 1** stated that, "When people have left and I am alone, I was thinking very much about my disease and whether I would recover. Sometimes, it was difficult because somebody who is in the next bed dies and I was thinking I am the next. Close to seven people in nearby beds died during my stay at the ICU." Another one itemised that, "I had bad dreams occasionally, I was anxious and sometimes I could feel like am not getting enough oxygen because my experience operation was around the neck hence I felt like I was being strangled and deprived of oxygen." **Participant 4**. **Participant 10** asserted that, "In ICU you would be very worried and just thinking that you would die. I had so many bad dreams. I could see mortuary people coming to take dead people".

4.6.2 Subtheme 2: Periods of delirium

Some of the participants in the study reported having mental issues while they were in the ICU. All of them attributed their condition to adverse side effects to the medication they were taking. **Participant 5** asserted that, "You know, as am telling, when you get to ICU, things come as if you are dreaming. Some of the things you are unable to understand because of the condition. When I woke, I felt like I had been placed inside

a drum with a lot of pipes, when you want to wake up you are prevented from doing so." **Participant 6** identified that, "First I would like to thank God for how far he has brought me, the doctors did take care of me very well. Although I maybe complain about the medication that I was given in ICU, they had adverse impact on my mental wellbeing. Even I had my legs and hands tied." **Participant 10** also added that, "In ICU the situation is different and most times it felt like I was dreaming, I could see mortuary people coming to take dead people. I was terrified"

4.6.3 Subtheme 3: Feeling helplessness

Few of the participants felt sorry for themselves and had concerns about their condition and whether they would recover or their situation would worsen. Some of the aspects identified include feeling lonely, unable to see family. **Participant 1** asserted that, "I was thinking about my condition and whether, I would get out of the ward, recover and be able to walk." **Participant 2** stressed that, "When I woke up, my head was blank. I was just there, I did not even have dreams." **Participant 4** added that, "I would say, family, like my children during the time of my admission it was during Covid hence they could not manage to come. I felt alone for many periods while in the hospital and I was down psychologically. Because of the restriction my partner could not come frequently as I expected."

The findings from the study also found that few of the participants reported having used the services of counsellors while in ICU. In addition, some of the participants could not remember having talked to a counsellor. **Participant 4** stressed that," I received the services of the counsellor and they really helped me to cope with my worries and fears." **Participant 10** highlighted that, "I was having nightmares and feeling lonely most of the time while I was in ICU considering that I never saw my condition improving. One of the doctors came and talked to me encouraging me that I should no lose hope but continue to pray as they do their part and it actually worked."

4.7 Theme 4: Perception of quality of care

The participants in the study were asked about the quality of care they received in the ICU. The major concepts that emerged included respectful care delivery, Level of care and challenges in care delivery as identified by the patients who participated in the study.

4.7.1 Subtheme 1: Respectful care

Majority of participants identified that the healthcare providers were providing quality care while respecting their needs and wellbeing. Almost all of the participants had faith in healthcare providers. **Participant 1** stated that, "I received respectful care, first ICU staff would come, greet me, introduce themselves and explain the procedure or processes that they were going to do on me such as injection, bathing." **Participant 7** asserted that, "I had high level of privacy especially when I was bathing and other procedures. Nurses always covered me to ensure that I was not exposed." **Participant 9** added that, "Nurses and doctors were always explaining before carrying out any actions." Further **Participant 9** continued that, "The care I received was top, doctor and healthcare providers were always close to me. Aside from treatment, I was also being talked to and I was being encouraged to stay strong which really motivated me."

4.7.2 Subtheme 2: Level of care

Participants were asked to rate the quality of care offered in the ICU. All of the participants had rating score of more than 80% in quality of care offered at the ICU. This means that most of the participants were satisfied with quality of care. **Participant 1** stated that, "I would give 100% for the quality I received till I recovered." **Participant 4** added that, "I would say was very good care, I would score the care for 95%." **Participant 6** stated that, "According to the care I received 86% is not bad."

4.7.3 Subtheme 3: Powerlessness

Some of the participants were not overly satisfied and had concerns on the quality of care that was being delivered. **Participant 2** stated that, "Occasionally during handover, they could chat and laugh though I felt that sometimes they talked well." **Participant 4** asserted that, "When I was being admitted to ICU, I felt that the nurse who was escorting me did not treat me well because she was insisting that I breathe properly when breathing was my major issue to begin with. I felt that it was not fine because my oxygen levels were going down." "When I was struggling with my oxygen placement. I heard one of the nurses say that, "you are calling me and you know that there is COVID-19, don't call me again." I was surprised because I did not expect such talk." **Participant 5.** "It really made me very dependent on caregivers even doing the most trivial things but I have moved on." **Participant 8.**

4.8 Theme 5: Enabling practice in ICU

The respondents were also asked about follow up actions including clinic attendance, adherence to treatment and potential areas of improvement.

4.8.1 Subtheme 1: Clinic attendance

Participants were asked on whether they always attend their clinics. All of the participants had scheduled clinics. The findings revealed that all of the participants had scheduled clinics which they were attending. The level of adherence to the clinics was excellent considering that none of the participants had missed prior clinic. **Participant 8** highlighted that, "Yes, I have clinics and have always been attending surgical outpatient clinic." **Participant 9** asserted that, "Yes, have been attending clinic all of them as always." **Participant 10** also stressed that, "Yes, I attend follow up my clinic, the next one is next month."

4.8.2 Subtheme 2: Need for improvement

The participants were also asked about what could be done in improving the patient experience in the ICU. Majority of the participants cited training of the nurse to improve their attitude and the level of care. **Participant 7** stated that, "you should work to ensure that there is no or minimal noise coming from the care providers, sometimes they talk loudly and laugh which is disturbing." **Participant 8** stressed that, "What I can say is reduce noise from both patients and doctors. Doctors should also be so keen with their patients to avoid confusion." **Participant 9** also stressed that, "You should also encourage nurses to use positive language in the provision of care to avoid harming patients."

Some of the participants maintained that visiting hours should also be reviewed to allow more time to visit because they also foster faster healing. **Participant 3** indicated that "The visiting hours are small and I think increasing the time would do us good as patients. Because being close to family helps heal faster". **Participant 5** asserted that, "I can say, because we are all human, that work needs somebody with good heart because you are attending to different patients. You need to provide seminars to the providers who were not passionate about their work". **Participant 4** stated that, "I

think they need to look at the ways to handle the alarms in ICU, they are quite distracting."

5. CHAPTER FIVE: DISCUSSION

5.1 Introduction

The study explored experiences of intensive care unit survivors to help understand and build a strong platform where it would be possible to improve efficiency and change protocols to enhance patient safety and quality of care delivered. There were five themes developed in the study which focus on different aspects in delivery of quality care. These themes included, reminiscence of ICU experience, Interaction in the ICU environment, adverse psychosocial experiences, quality of care and enabling practice.

5.2 Recollection of ICU experiences

Majority of the participants could remember the experiences they had in ICU. However, recall of the events at ICU is dependent on mental stability and ability to recall among patients. These findings have been echoed by Sanson et al. (2021) who found that severity of injury and mental alertness is crucial in effectively recalling true events within ICU. The findings from the present study found that among those who were able to recall, most of them reported positive experiences which relate to interaction with healthcare providers and the environment which was clean most of the time. These findings are consistent with Alasad et al. (2015) who found that most of the patients who participated in the study were able to recall their ICU experiences with high level of awareness to surrounding persons and relatives. However, these findings contrast those found by Topcu et al. (2017) who found that most of the participants recalled their care in ICU which was more negative than positive. This difference could be resulting from the severity of patient's condition in ICU. Patients who are severely ill in ICU are unable to comprehend what is happening around them.

In our present study only few of the participants reported knowing when they were being admitted in ICU from theatre. These findings are in line with a multi-center study that was conducted in Sri Lanka that found less than half of the patients could recall their admission to the ICU. The level of interaction and healthcare delivered in ICU was found to be satisfactory (Pieris et al., 2018). The fundamental goal among patients in ICU is to recover and be discharged to the wards. All of the patients who were interviewed in our study had been discharged from hospital which could explain the high level of satisfaction.

5.3 Physical experiences in ICU

The results showed that physical experiences could be described on the basis of positive experiences, unpleasant experiences and stressors among intensive care unit survivors. The findings from the present study revealed that, majority of the participants had positive interaction with physical environment. They presumed the environment to be highly conducive with little or no challenges at all. The positive physical interaction as identified in our study among the participants was derived from the cleanliness of the ICU, responsive nature of many of healthcare providers and commitment to meeting patient needs. These findings are consistent with past studies by Pinyokham et al. (2019) and Alasad et al. (2015) who found that the responsive nature of healthcare providers and being able to access some of their family members created a positive environment for them. However, in our study, there was limited access to patients from relatives which was one of the stressors. This was aimed at controlling potential covid-19 infection which was relatively high during the period of their hospitalization.

The findings from the present study also showed that other stressors that were identified included noise from staff and machines, constant change of diapers, needle punctures and pain. ICU has patients who have undergone varied procedures and thus are likely to be irritated by simple actions such as noise, beeping sound from the machines and needle punctures. Some of these stressors can be controlled such as noise but needle punctures and beeping machines are stressors that need to be tolerated by patients which decrease their level of satisfaction with care. The findings from our present study are comparable to Topcu et al. (2017) who found that physical experiences such as pain, discomfort, noise and needle punctures were the common stressors among ICU patients. Further, Pieris et al. (2018) echoes these results asserting that being bedridden, general discomfort and daily needle punctures were major challenges that patients in ICU were going through.

5.4 Psychosocial experiences

Psychosocial experiences among survivors of ICU where it was revealed that there were three major concepts that defined psycho-social experiences which included trauma experiences, period of delirium and feeling helplessness. Trauma experiences were most common among study participants. These experiences were associated with

witnessing fellow patient die, having nightmares and excessive thinking about their condition. These findings are comparable to Wade et al. (2021) who found that up to half of the patients in ICU experience extreme stressful situations. Serpil et al. (2017) also stated that hallucinations, nightmares, fear and concern are common among patients in ICU. These experiences can lead to being emotional. The findings from our study found that less than half of the patients had received support of a counsellor in dealing with extreme negative experiences. These findings are in line with Pinyokham et al. (2019) who found that counselling was done in few patients although it was associated with increased positive psychological thoughts.

Period of delirium was observed in some of the patients. Participants attributed this to medication they were given. Train et al. (2019) also found that patients in ICU experienced period of delirium and hallucinations which could be influenced by sedation and analgesia. Additionally, patients are also likely to experience delirium mainly due to exposure to medications that alter sleep patterns, the structure of ICU setting as well as the effects of patients condition (Telias & Wilcox, 2019). The findings from the present study also revealed that, feeling of helplessness among the participants was common in less than half of them. This was associated with feeling lonely, unable to see their family and fear of the unknown. Feeling helpless is common in patients in ICU considering that they are bedridden and majorly dependent since they cannot do most of things on their own. These results echo those by Pinyokham et al. (2019) who highlighted that among patients in ICU, feeling of helplessness is rampant and most patients are scared for their lives. Mohamed et al. (2020) also maintained that being bedridden and highly dependent on healthcare providers were key reasons for helplessness among ICU patients.

5.5 Perception of quality of patient care

The findings from the study revealed that majority of the participants reported having received respectful care while in ICU. They also had high level of confidence in healthcare providers to offer quality care. The respectful care included calling by name and ensuring that their needs were met at all times. The staff were also introducing themselves and explaining the procedures they were expected prior in ensuring that the patients understood clearly.

All of the participants rated quality of care in ICU as high (>80%). This was mainly because the patients had been discharged and they considered all the processes as having been satisfactory. These results are in line with Pieris et al. (2018) who concluded that majority of patients were satisfied with the care they received in the ICU. Similarly, Bani and Hayajneh (2018) and Salous et al. (2017) also found similar results where they asserted that quality of care in ICU was high.

However, our present study also revealed that there were challenges in delivery of quality care as expected. Some of the healthcare providers were rude and did not practice respectful care although they were just few. Most of the participants also did not like that they were dependent on care providers to take care of their basic needs including bathing and changing diapers. These findings are echoed by Munro et al. (2017) who identified that not all healthcare providers are committed to provision of quality care. However, it is essential to ensure that there is commitment to improving patient needs through high level care and focus from all healthcare providers (Sanson et al., 2021).

6. CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The results on recollection of ICU experiences revealed that majority of the participants could remember the experiences they had in ICU which they reported as positive. Only few of the participants reported knowing when they were being admitted in ICU from theatre.

The results also showed that physical experiences could be described on the basis of positive experiences, unpleasant experiences and stressors among intensive care unit survivors. Majority of the participants had positive interaction with physical environment. Further, noise from staff, machines, needle punctures and constant change of diapers were the most common stressors among ICU patients.

Psychosocial experiences among survivors of ICU where it was revealed that there were three major concepts that defined psycho-social experiences which included trauma experiences, period of delirium and feeling helplessness.

In investigating perception on quality of care, the results established that majority of the participants reported having received respectful care while in ICU. They also had high level of confidence in healthcare providers to offer quality care. However, our present study also revealed that there were challenges in delivery of quality care as expected. Some of the healthcare providers were rude and did not practice respectful care although they were just few.

6.2 Recommendations

6.2.1 Recommendations for practice

- Conduct training and workshops on dealing with critically ill patients by health care providers to avoid mishandling of patients.
- Enhance the level of privacy among patients when carrying out any processes to patients in the wards.
- Improve on the level of multidisciplinary care in ICU to maximize positive patient experience.

6.2.2 Recommendations for policy

- Separate critically ill patients and moderately ill patients to control trauma associated with observing dead persons every day in the ICU. This could be achieved by coming up with a step down ICU.
- To increase the number of counsellors and psychologists in ICU to control the occurrence of psychosocial issues which are highly prevalent.
- Relevant policies touching on the care of critically ill to be revised and rolled out such that their implementation will improve patient experiences in the ICU
- Invent post ICU clinic for easy, close and comprehensive follow up of all post ICU patients.

6.2.3 Recommendations on further researches

- A similar study should be carried out in the major private hospitals in Kenya so as to compare with the findings of this study that has been done in a public hospital.
- A study to explore on the challenges experienced by intensive care survivors and their families after hospital discharge.
- A study to explore critical care nurses experiences during care of the critically ill patient.

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Study Budget

Components	Unit of Measurement	Duration/Number	Cost (Kshs)	Total (Kshs)
Personnel				
Literature search and internet services				10,000
Transcription fee				25,000
Transport				10,000
Printing				
Consent form	1	2	10	20
Interview guide	1	2	10	20
Final report	1	85	10	850
Photocopying				
Consent form	20	2	3	120
Interview guide	20	2	3	120
Final report	9	85	3	2,295
Final report binding	10	1	500	1,500
Other costs				
ERC fees				5,000
Record access fees				500
Tape recorder				5,000
Publication fees				70,000
Contingency fees				13,000
TOTAL				**143,425**

Work Plan

	2020										
Activity	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**
Concept development											
Writing Proposal and presentation											
Proposal submission to Ethics Board, corrections and approval											
Collection of data and analysis											
Writing report and corrections											
Project submission and defense											

APPENDICES

APPENDIX 1: Letter to KNH/UoN research and ethics committee

Jael Ochieng,
P.O.Box 19336-00202,
Nairobi.
3rd June 2021.

The Chairperson,
KNH/UON Research and Ethics Committee,

Dear Sir/Madam,

REF: PERMISSION TO CARRY OUT RESEARCH AT KENYATTA NATIONAL HOSPITAL

I wish to humbly request for your permission to carry out research on intensive care survivors' experiences during acute hospitalization in critical care unit, Kenyatta National Hospital. I am a postgraduate student undertaking Master of Science Degree in Critical Care Nursing at The University of Nairobi. The findings of the study will help influence policy making by identifying areas for improvement regarding intensive care survivors' experiences during acute hospitalization in the critical care unit.

Your kind consideration will be highly appreciated.

Yours faithfully,

Jael Ochieng.

STUDENT NO: H56/11421/2018

P/NO: 532229.

APPENDIX 2A: PARTICIPANTS CONSENT FORM

TITLE: INTENSIVE CARE SURVIVORS' EXPERIENCES DURING ACUTE HOSPITALIZATION IN CRITICAL CARE UNIT, KENYATTA NATIONAL HOSPITAL

PRINCIPAL INVESTIGATOR: JAEL OCHIENG

INTRODUCTION

My name is JAEL OCHIENG, I am a postgraduate student in Critical Care Nursing at the University of Nairobi. I am conducting a research to explore the experiences of intensive care survivors' during acute hospitalization in critical care unit, Kenyatta National Hospital. This interview will be tape recorded for future reference and to allow me to give you my undivided focus during the session. Your identity will not be divulged in any manner, and the information you provide will be kept private. This consent is intended to provide you with the information you'll need to help you decide whether or not to participate in the study. Please read the following information carefully and ask the researcher anything that is not clear or any other information you may need.

1. **Explanation of the objectives and the procedure**

The purpose of this study is to explore the experiences of intensive care survivors' during acute hospitalization in critical care unit, Kenyatta National Hospital. The study requires that you read and understand the information sheet provided before you sign the consent. After signing the consent form, you will be interviewed by the primary investigator in a secluded environment where you will be free and comfortable.

This study requires that you respond to questions in the discussion to the best of your knowledge and you be honest. These discussions will take about 30-40 minutes of your time and the researcher will guide the session. All discussions will be voice recorded for referencing and for the researcher to transcribe, interpret and write a study report. You may decline to answer any or all questions and you are allowed to leave at any time you choose.

2. Benefits

There is no monetary gain or reward associated with your participation in this study. However, the study results will provide a basis for improvement of health care services and the overall benefits to improve the patients' outcome.

3. Risks

There are no risks involved or associated with this study.

4. Confidentiality

Your responses to this study will be anonymous. The information collected from you during the study will be treated with confidentiality and it will be used only for the purpose of the study and not anywhere else.

5. Refusal or withdrawal from participation

Your participation in this study is voluntary. You have the right to withdraw from the study at any time. In the event that you wish to withdraw, there will be no penalty or intimidation for you to remain in the study.

Participant's statement

I understand that my participation is voluntary and that I may decline to participate or withdraw my participation at any point of the study without consequences.

I hereby freely consent to participate in the study.

Participant's initials _____ Date____ _____

Principal researcher's signature_____
Date_____

Contact information

If you have any questions or clarifications needed, please feel free to contact the following:

Kenyatta National Hospital/ University of Nairobi
Ethics and Research Committee Secretariat
P.O.BOX 20723- 00202,
Nairobi.
Tel: 726300-9 Extension: 44102
E-mail: uonknh-erc@uonbi.ac.ke
Physical address: School of Pharmacy Grounds,
University of Nairobi, College of Health Sciences
Kenyatta National Hospital Campus.

Principal researcher: Jael Ochieng,
Mobile No: 0721962879
Department of Nursing Sciences
University of Nairobi.

KNH Critical Care Unit, Extension: 43478.

APPENDIX 2B: PARTICIPANT'S CONSENT FORM (SWAHILI VERSION)

KIAMBATISHO:: FOMU YA MAJALIWA YA MSHIRIKI

CHEO: UZOEFU WA WANAOKOKA KWA UTUNZAJI KWA UJUZI WAKATI WA HOSPITALIALI YA PAPO KATIKA KITENGO CHA HUDUMA YA HOSPITALI YA TAIFA YA KITUO KIKUU KENYATTA

MCHUNGUZI MKUU: JAEL OCHIENG

UTANGULIZI

Jina langu ni JAEL OCHIENG, mimi ni mwanafunzi wa uzamili katika Uuguzi wa Huduma Muhimu katika Chuo Kikuu cha Nairobi. Ninafanya utafiti kuchunguza uzoefu wa waathirika wa utunzaji mkubwa wakati wa kulazwa hospitalini kwa nguvu katika kitengo cha wagonjwa mahututi, Hospitali ya Kitaifa ya Kenyatta. Mahojiano haya yatarekodiwa kwa mkanda kwa madhumuni ya kumbukumbu na pia kuniwezesha kukusikiliza kabisa wakati wa mahojiano. Utambulisho wako hautafunuliwa kwa njia yoyote na habari itakayotolewa itashughulikiwa kwa usiri mkubwa. Madhumuni ya idhini hii ni kukupa habari utakayohitaji kukusaidia kuamua ikiwa utashiriki au usishiriki katika utafiti huo. Tafadhali soma habari ifuatayo kwa uangalifu na muulize mtafiti chochote ambacho hakieleweki au habari nyingine yoyote ambayo unaweza kuhitaji.

1. Maelezo ya malengo na utaratibu

Kusudi la utafiti huu ni kuchunguza uzoefu wa waathirika wa utunzaji mkubwa wakati wa kulazwa hospitalini kwa nguvu katika kitengo cha wagonjwa mahututi, Hospitali ya Kitaifa ya Kenyatta. Utafiti unahitaji kwamba usome na uelewe karatasi ya habari iliyotolewa kabla ya kutia saini idhini hiyo. Baada ya kusaini idhini, utahojiwa na mpelelezi mkuu katika eneo la kibinafsi ambapo utakuwa huru na starehe.

Utafiti unahitaji kwamba ujibu maswali kwenye mjadala kwa ujuzi wako wote na uwe mwaminifu. Majadiliano haya yatachukua kama dakika 30-40 ya wakati wako na

mtafiti ataongoza kikao. Majadiliano yote yatasajiliwa kwa sauti kwa madhumuni ya kumbukumbu na kwa mtafiti kunukuu, kutafsiri na kuandika ripoti ya utafiti.
Unaweza kukataa kujibu maswali yoyote au yote na unaruhusiwa kuondoka wakati wowote utakaochagua.

2. Faida

Hakuna faida ya fedha au tuzo inayohusishwa na ushiriki wako katika utafiti huu. Walakini, matokeo ya utafiti yatatoa msingi wa uboreshaji wa huduma za afya na faida ya jumla kuboresha matokeo ya wagonjwa.

3. Hatari

Hakuna hatari zinazohusika au zinazohusishwa na utafiti huu.

4. Usiri

Majibu yako kwa utafiti huu hayatajulikana. Habari iliyokusanywa kutoka kwako wakati wa utafiti itashughulikiwa kwa usiri na itatumika tu kwa madhumuni ya utafiti na sio mahali pengine popote.

5. Kukataa au kujiondoa kwenye ushiriki

Ushiriki wako katika utafiti huu ni wa hiari. Una haki ya kujiondoa kwenye utafiti wakati wowote. Katika tukio ambalo ungetaka kujiondoa, hakutakuwa na adhabu au vitisho kwako kubaki kwenye utafiti.

Taarifa ya mshiriki

Ninaelewa kuwa ushiriki wangu ni wa hiari na kwamba ninaweza kukataa kushiriki au kuondoa ushiriki wangu wakati wowote wa utafiti bila matokeo.
Ninakubali kwa hiari kushiriki katika utafiti.

Hati za kwanza za mshiriki _____

Tarehe_____

Saini ya mtafiti mkuu_____

Tarehe_____

Maelezo ya mawasiliano

Ikiwa una maswali yoyote au ufafanuzi unahitajika, tafadhali jisikie huru kuwasiliana na yafuatayo:

Hospitali ya Kitaifa ya Kenyatta / Chuo Kikuu cha Nairobi
Sekretarieti ya Kamati ya Maadili na Utafiti
PO Box 20723- 00202,
Nairobi.
Simu: 726300-9 Ugani: 44102
Barua pepe: uonknh-erc@uonbi.ac.ke
Anwani ya mahali: Shule ya Viwanja vya Dawa,
Chuo Kikuu cha Nairobi, Chuo cha Sayansi ya Afya
Kampasi ya Hospitali ya Kitaifa ya Kenyatta

Mtafiti mkuu: Jael Ochieng,
Nambari ya simu: 0721962879
Idara ya Sayansi ya Uuguzi
Chuo Kikuu cha Nairobi

Kitengo cha Huduma Muhimu cha KNH, Ugani: 43478

APPENDIX 3: INTERVIEW GUIDE

1. Introduction

I will introduce myself and review the following:

- Who am I and what I would like to do? (Mimi ni nani na ningependa kufanya nini?)
- Intention (Nia)
- What is the intention of this information? (Nini nia ya habari hii?)
- Why did I ask you to participate (Kwa nini nilikuuliza ushiriki)

Thank you for consenting to take part in this research. Before I start the recording, allow me to ask you some general questions about yourself. (Asante kwa kukubali kushiriki katika utafiti huu. Kabla sijaanza kurekodi, niruhusu nikuulize maswali ya jumla kukuhusu).

Demographic data

1. Gender: (Jinsia)……
2. Age: (Umri)……
3. Marital status: (Hali ya ndoa)……
4. Number of children: (Idadi ya watoto)……..
5. Living with family/alone: (Kuishi na familia / peke yake)……
6. Residence: (Makaazi)……
7. Level of education: (Kiwango cha elimu)…….
8. Main activity: (Shughuli kuu)……
9. Monthly income (. Mapato ya kila mwezi)……
10. Reason for admission: (Sababu ya kulazwa)……..
11. Comorbidities: (Maradhi mengine)……
12. Surgery: (Upasuaji)……

CLINICAL DATA (This will be obtained from the patient's file)

1. DOA: ……
2. DOD: …….
3. Patient's diagnosis: ……
4. GCS score on admission: ……
5. GCS score on discharge from ICU: …….
6. LOS in ICU: ……
7. LOS in the ward: …….
8. Days of mechanical ventilation: …….
9. Sedated/ type/length of sedation: ……
10. On inotropic support: ……

Thank you for taking the time to tell me about your background. Now, do you allow me to start recording? (Asante kwa kuchukua muda kuniambia juu ya historia yako. Sasa, unaniruhusu kuanza kurekodi?)

(If no, thank the participant for their time and conclude the meeting) (If Yes, continue with the interview). Please say "Yes" to confirm that you want me to record the interview now that it is started. (Tafadhali sema "Ndio" ili kudhibitisha kuwa unataka nirekodi mahojiano sasa wakati yameanza).

PROBE AND FOLLOW UP QUESTIONS

Recollection of ICU experience

Q1. Do you remember your ICU experience? (Je! Unakumbuka uzoefu wako wa ICU?)

A) How do you define your ICU experience? (Je! Unafafanua vipi uzoefu wako wa ICU?)
B) How would you describe the ICU environment? (Je! Unaweza kuelezeaje mazingira katika ICU?)
C) How was your relationship with the healthcare professionals? (Uhusiano wako na wataalamu wa huduma ya afya ulikuwaje?)

Physical experiences

Q2. How was your physical experiences? (Je! Uzoefu wako wa mwili ulikuwaje?)

A) How would you describe your pleasant/ positive experiences? (Je! Unaweza kuelezeaje uzoefu wako mzuri / mzuri?)
B) How would you describe your unpleasant/ negative experiences? (Unaweza kuelezeaje uzoefu wako mbaya / mbaya?)
C) How would you describe your ICU stressors? (Unawezaje kuelezea mafadhaiko yako ya ICU?)

Psychosocial experiences

Q3. How was your psychosocial experiences? (Je! Uzoefu wako wa kisaikolojia ulikuwaje?)

A) How would you describe your pleasant/ positive experiences? (Je! Unaweza kuelezeaje uzoefu wako mzuri / mzuri?
B) How would you describe your unpleasant/ negative experiences? (Unaweza kuelezeaje uzoefu wako mbaya / mbaya?)
C) How would you describe your ICU stressors? (Unawezaje kuelezea mafadhaiko yako ya ICU?)

Perception of care received

Q4. Was there anything particular about the care you received during your ICU stay that you were particularly happy or unhappy with? (Je! Kulikuwa na chochote hasa juu ya utunzaji uliyopokea wakati wa kukaa kwako ICU ambao ulikuwa na furaha sana au haukufurahi?)

A) How was the courtesy, respect and compassion given by the ICU staff? (A) Je! Adabu, heshima na huruma zilitolewaje na wafanyikazi wa ICU?)

I) How can you define the respect for human identity given by the ICU staff? (Unawezaje kufafanua heshima ya kitambulisho cha kibinadamu iliyotolewa na wafanyikazi wa ICU?)

II) How can you define the Respect for patient privacy given by the ICU staff? (Unawezaje kufafanua Heshima ya faragha ya mgonjwa iliyotolewa na wafanyikazi wa ICU?)

III) How can you define the Prior explanation of procedures by caregivers? (Unawezaje kufafanua maelezo ya awali ya taratibu na watunzaji?)

B) Did you have confidence and trust in the nurses and doctors treating you? (Je! Ulikuwa na ujasiri na uaminifu kwa wauguzi na madaktari wanaokutibu?)
C) Did you find someone on the ICU staff to talk to about your worries and fears? (Je! Ulipata mtu kwenye wafanyikazi wa ICU kuzungumza na wasiwasi wako na hofu yako?)
D) Were you ever bothered by noise from other ICU patients? (Je! Uliwahi kusumbuliwa na kelele kutoka kwa wagonjwa wengine wa ICU?)
E) Were you ever bothered by noise from ICU staff? (Je! Uliwahi kusumbuliwa na kelele kutoka kwa wafanyikazi wa ICU?)
F) How well did the ICU staff treat your pain? (Wafanyikazi wa ICU walitibu vipi maumivu yako?)
G) In your opinion, how clean was the ICU? (Kwa maoni yako, ICU ilikuwa safi kiasi gani?)
H) How has your stay in ICU affected your quality of life following discharge? (Kukaa kwako ICU kumeathiri vipi maisha yako kufuatia kutokwa?)

I) Do you attend the follow up clinics? (Je! Unahudhuria kliniki za ufuatiliaji?)

J) Overall, in terms of percentage how would you rate the care you received? (Kwa jumla, kwa asilimia unaweza kupima huduma uliyopokea?)

K) What are your suggestions for improvement? (Je! Ni maoni yako gani ya kuboresha?)

Thank you for your participation. I will now stop recording. (Asante kwa ushiriki wako. Sasa nitaacha kurekodi).

APPENDIX 4: LETTER OF APPROVAL FROM KNH-UON ERC

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

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

KENYATTA NATIONAL HOSPITAL
P O BOX 20723 Code 00202
Tel: 726300-9
Fax: 725272
Telegrams: MEDSUP, Nairobi

Ref: KNH-ERC/A/353

4th October, 2021

Jael Ochieng
Reg. No.H56/11421/2018
School of Nursing Sciences
Faculty of Health Sciences
University of Nairobi

KENYATTA NATIONAL HOSPITAL APPROVED 04 OCT 2021 KNH/UoN-ERC P.O. Box 20723 - 00202 NAIROBI

Dear Jael

RESEARCH PROPOSAL: **INTENSIVE CARE SURVIVORS' EXPERIENCES DURING ACUTE HOSPITALIZATION IN CRITICAL CARE UNIT KENYATTA NATIONAL HOSPITAL (P495/06/2021)**

This is to inform you that the KNH- UoN Ethics & Research Committee (KNH-UoN ERC) has reviewed and **approved** your above research proposal. The approval period is 4th October 2021 – 3rd October 2022.

This approval is subject to compliance with the following requirements:

i. Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
ii. All changes (amendments, deviations, violations etc.) are submitted for review and approval by KNH-UoN ERC before implementation.
iii. Death and life threatening problems and serious adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH-UoN ERC within 72 hours of notification.
iv. Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH- UoN ERC within 72 hours.
v. Clearance for export of biological specimens must be obtained from KNH- UoNERC for each batch of shipment.
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.

This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/ or plagiarism.

Protect to discover

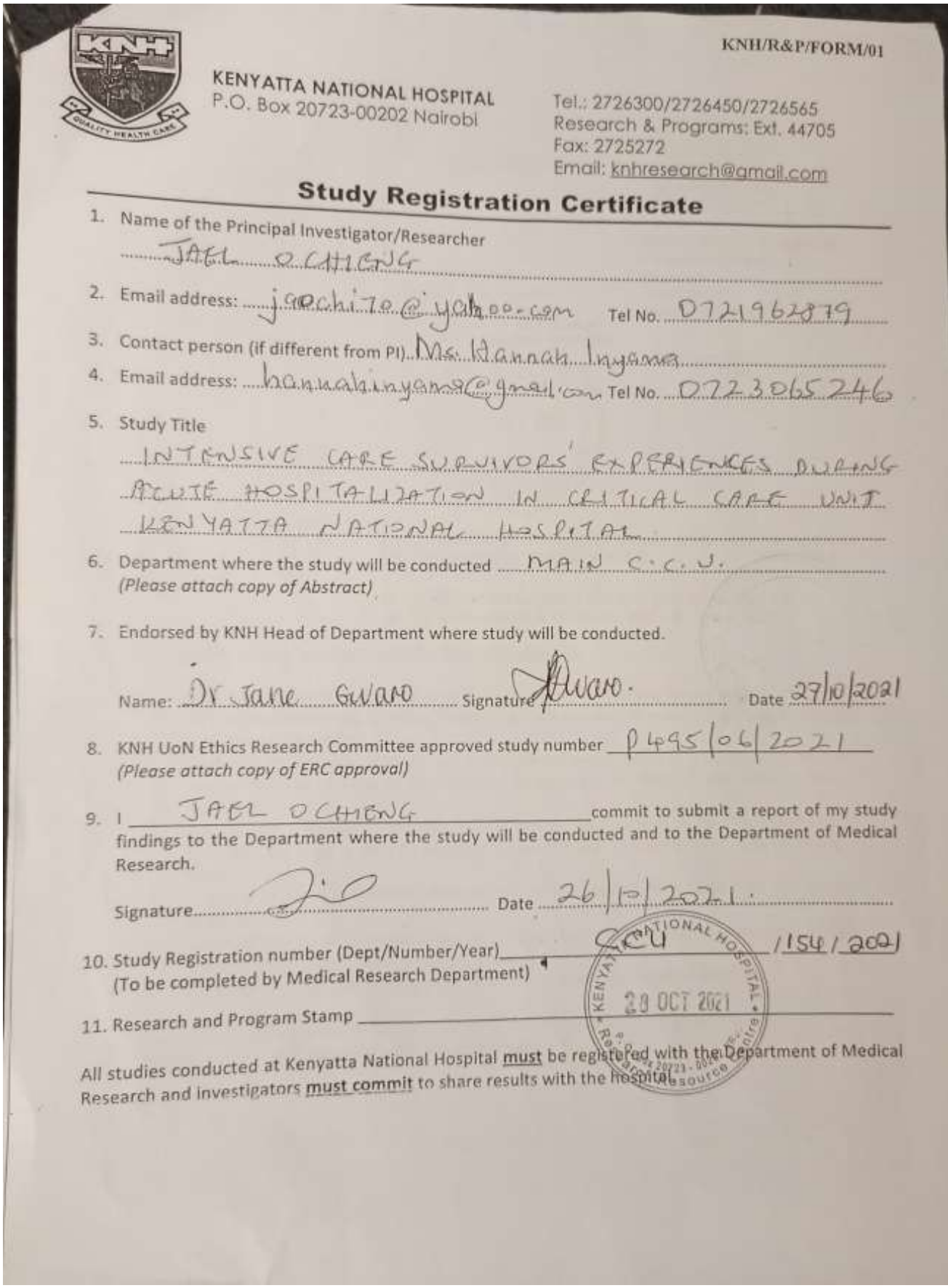
For more details consult the KNH- UoN ERC website **http://www.erc.uonbi.ac.ke**

Yours sincerely,

PROF. M.C CHINDIA
SECRETARY, KNH- UoN ERC

c.c. The Dean-Faculty of Health Sciences, UoN
The Senior Director, CS, KNH
The Chairperson, KNH- UoN ERC
The Assistant Director, Health Information, KNH
The Director, School of Nursing Sciences, UoN
Supervisors: Ms. Hannah K. Inyama, School of Nursing Sciences, UoN
Dr. Dorcas W. Maina, School of Nursing Sciences, UoN

APPENDIX 5: STUDY REGISTRATION CERTIFICATE



KNH/R&P/FORM/01

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

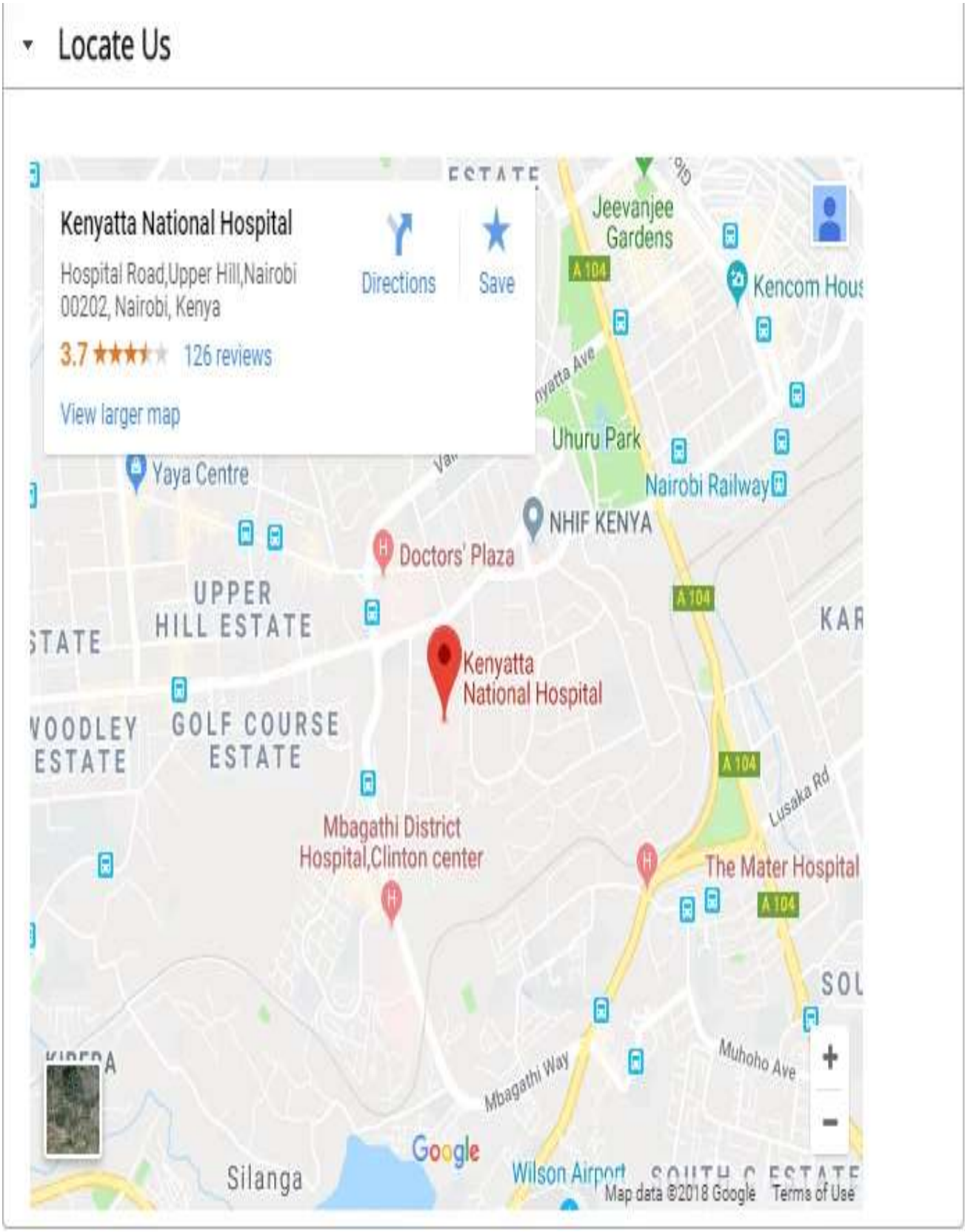
Tel.: 2726300/2726450/2726565
Research & Programs: Ext. 44705
Fax: 2725272
Email: knhresearch@gmail.com

Study Registration Certificate

1. Name of the Principal Investigator/Researcher
   JAEL OCHIENG
2. Email address: jaochito@yahoo.com Tel No. 0721962879
3. Contact person (if different from PI) Ms. Hannah Inyama
4. Email address: hannahinyama@gmail.com Tel No. 0723065246
5. Study Title
   INTENSIVE CARE SURVIVORS' EXPERIENCES DURING ACUTE HOSPITALIZATION IN CRITICAL CARE UNIT KENYATTA NATIONAL HOSPITAL
6. Department where the study will be conducted MAIN C.C.U.
   (Please attach copy of Abstract)
7. Endorsed by KNH Head of Department where study will be conducted.
   Name: Dr Jane Gwaro Signature Gwaro. Date 27/10/2021
8. KNH UoN Ethics Research Committee approved study number P495/06/2021
   (Please attach copy of ERC approval)
9. I JAEL OCHIENG commit to submit a report of my study findings to the Department where the study will be conducted and to the Department of Medical Research.
   Signature ..... Date 26/10/2021.
10. Study Registration number (Dept/Number/Year) CCU /154/2021
    (To be completed by Medical Research Department)
11. Research and Program Stamp KENYATTA NATIONAL HOSPITAL 28 OCT 2021

All studies conducted at Kenyatta National Hospital must be registered with the Department of Medical Research and investigators must commit to share results with the hospital.

LOCATION OF KENYATTA NATIONAL HOSPITAL



(SOURCE: GOOGLE MAPS)

PHOTO OF KENYATTA NATIONAL HOSPITAL

(SOURCE: GOOGLE MAPS)

ANTIPLAGIARISM REPORT

INTENSIVE CARE SURVIVORS' EXPERIENCES DURING ACUTE HOSPITALIZATION IN CRITICAL CARE UNIT KENYATTA NATIONAL HOSPITAL

ORIGINALITY REPORT

6%	6%	1%	%
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Kathuya