DETERMINANTS OF MET AND UNMET NEEDS OF FAMILY MEMBERS WITH CRITICALLY ILL PATIENTS IN THE CRITICAL CARE UNIT – KENYATTA NATIONAL HOSPITAL

VALENTINE NGENY

H56/11277/2018

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF SCIENCE IN CRITICAL CARE NURSING OF THE UNIVERSITY OF NAIROBI.

November, 2020.

DECLARATION

I declare that this research is my original work and has not been presented for any academic award in any university.

Name: VALENTINE JEPYEGON NGENY.

Signature.............................

Date ....2/12/2020....................

CERTIFICATE OF APPROVAL

We, the undersigned certify that this dissertation has been submitted for the Degree of Master of Science in Nursing (Critical Care) of the University of Nairobi with our approval as supervisors.

Name: EUNICE OMONDI (PhD)

Lecturer School of Nursing Sciences.

University of Nairobi.

Signature: .... Date 1/12/2020

Name: ANNA KARANI(PhD)

Professor, School of Nursing Sciences.

University of Nairobi. (UON).

Signature: .... Date 2/12/2020

DEDICATION

I wish to dedicate this research to God for His daily blessings that He has showered upon me throughout my research. Second is to my beloved husband and my children for moral and spiritual support throughout my studies.

ACKNOWLEDGEMENT

I am greatly indebted to The Almighty God for granting me an opportunity to pursue my degree program. His abundant care, love and grace have enabled me to soldier on despite many upheavals in my quest for a Master's degree. My heartfelt gratitude and appreciation go to my supervisors Dr. Eunice Omondi and Prof. Anna K. Karani whose able supervision and guidance has been integral in the completion of this proposal. I would like to pay my grandest homage to KNH administration, all participants in the study and lastly to all persons who in one way or the other significantly contributed to my studies.

TABLE OF CONTENTS

DECLARATION i

CERTIFICATE OF APPROVAL ii

DEDICATION iii

ACKNOWLEDGEMENT iv

TABLE OF CONTENTS v

LI ST OF FIGURES viii

LIST OF TABLES ix

ABBREVIATIONS AND ACRONYMS x

OPERATIONAL DEFINITIONS xi

ABSTRACT xii

CHAPTER ONE: INTRODUCTION 1

1.1 Background of the study 1

1.2 Problem Statement 2

1.3 Justification and Significance of the study 3

1.4 Research Questions 4

1.5 Broad Objective 4

1.6 Specific objectives 4

1.7 Research hypothesis 4

CHAPTER TWO 5

LITERATURE REVIEW 5

2.1 Introduction 5

2.2 Family related -Socio-demographic 7

2.3 Institution related 8

2.4 Staff related 10

2.5 Summary and Research Gap 12

2.6 Theoretical Framework 13

2.7 Conceptual Framework 16

.... 17

CHAPTER THREE 18

RESEARCH METHODOLOGY 18

3.1 Introduction 18

3.2 Study Design 18

3.3 Study Area 18

3.4 Study Population 19

3.5 Sampling size determination and sample technique 19

3.6 Inclusion and Exclusion Criteria 21

3.6.1 Inclusion Criteria 21

3.7 Data collection instrument 21

3.8 Validity and Reliability 21

3.9 Data collection procedures 22

3.10 Data management and analysis 22

3.11 Study Variables 23

3.12 Ethical Considerations 23

3.13 Dissemination Plan 24

3.14 Study limitations 24

CHAPTER FOURFINDINGS/RESULTS AND DATA ANALYSIS 25

4.1 Introduction 25

4. 2 Socio Demographic Characteristics of research respondents 25

4. 1 Status Of Met And Unmet Need 28

4.2 1 The Top Ten Met Needs according to the family members 29

4.2 2 The Top Ten Unmet Needs according to the family members 30

4. 2 Determinants Of Met And Unmet Needs 30

4. 3 Status Of Met And Unmet Need 31
4.3.1 Family related determinants of met and unmet Needs 32
4.3.2 Institution related determinants of met and unmet family needs 32
4.3.3 Needs related to Staff determinants 33
4.3.4 Relationship between the unmet needs and demographic characteristics 34
CHAPTER 5: DISCUSSION, CONCLUSION AND RECOMMENDATIONS.............35
5.1 DISCUSSION 35
5.1.1 Introduction 35
5.1.2 Socio demographic characteristics 35
5.1.3 Met and Unmet Needs and their related determinants 36
5.1.3.1 Institutional related determinants 36
5.1.3.2 Staff related determinants..38
5.1.3.4 Family related determinants 39
5.2 CONCLUSION 40
5.3 RECOMMENDATIONS 41
REFERENCES..42
APPENDIXES 45
APPENDIX A: Consent Form 45
APPENDIX B: Questionnaire 47
APPENDIX C: Approval from Ethics Committee..56
APPENDIX D: Letter from KNH giving Authority to Conduct Study 57
APPENDIX E: Similarity Index Report..58

LI ST OF FIGURES

Figure 2.1: Theoretical framework ……………………………………………………………14
Figure 2.2: Conceptual framework ……………………………………………………………17
Figure 4.1 Education level of the respondents…………………………………………………27

LIST OF TABLES

Table 4.1 Socio demographic characteristics of the respondents …………………………...25

Table 4.2 Relationship of the respondents to the patients ……………………………..........27

Table 4.3 Summary of Status of met and unmet needs according to family members……...28

Table 4.4 Mean and SD of the Ten Met Needs according to the family members …………29

Table 4.5 Mean and SD of the Top Ten Unmet Needs according to the family members….30

Table 4.6 Summary of status of met and unmet needs according to determinants ………... 31

Table 4.7 The Top Five needs caused by Family Determinants…………………………….33

Table 4 .8 The Top Ten needs caused by institutional Determinants …………….…............33

Table 4.9 The Top Ten needs caused by Staff Determinants……………………………….34

ABBREVIATIONS AND ACRONYMS

ALOS - Average length of stays

CCFNI-Critical Care Family Needs Inventory

CCU – Critical Care Unit

EOL- End of life

KNH – Kenyatta National Hospital

MCCU-Medical Critical Care Unit.

NCCU- Neonatal Critical Care Unit.

NMI - Needs Met Inventory

PCCU- Pediatric Critical Care Unit

PTSD- Post Traumatic Stress Disorder

SPSS- Statistical Package for Social Sciences.

OPERATIONAL DEFINITIONS

CRITICAL CARE NURSE – Licensed caregiver trained in critical care nursing, who offers comprehensive care to patients.

CRITICAL CARE UNIT (CCU)- Section of a hospital where specialized care of patients whose conditions are life threatening and who require comprehensive care and constant monitoring are admitted.

DETERMINANTS: The perceived causes of the met and unmet needs as seen by family members.

FAMILY MEMBER- Close family member- parents, siblings and spouse of the patient.

FAMILY NEEDS- Emotional, physical, psychological, spiritual.

MET NEEDS-The concerns that the family members are satisfied with to have been fulfilled or improved on.

PATIENT – Any person who is receiving medical care or treatment in the Critical Care Unit, with an unstable condition requiring close and specialized care.

UNMET NEEDS-The needs the family members feel they are not addressed by the health care team.

ABSTRACT

Background: When a patient is admitted to the Critical Care Unit (CCU), it is always looked at as a time of intense difficulty by the family members since most patients have life threatening conditions. Within this period the family endures a plethora of issues, mainly related to perception of information, proximity, support, assurance and comfort. Assessing the determinants that cause these experiences and knowing if they are unmet or met, strengthens familial bonds and therefore their ability to interact with and or support their critically ill patient, reducing Post-traumatic stress disorder (PTSD) commonly seen with family members with patients in CCU. Within the CCU KNH activities are quite many and this makes the staff busy most times, which can make the family member not to receive the adequate support needed at this critical period.

Broad objective: To assess the determinants of met and unmet needs of family members of critically ill patients receiving care at CCU KNH.

Methodology: A descriptive cross sectional study was done. The sample size for the study was 69 patients' family members identified using convenient sampling method. A semi structured researcher administered questionnaire was used to collect data that related to socio-demographic data, met and unmet needs and their determinants. Data analysis was performed using SPSS. Descriptive statistics was used to examine the distribution of variables and statistical significance measured using chi square. Descriptive statistics was presented using frequency tables, percentages in order to get an insight into mean average, standard deviation frequency distribution and percentages of the collected data on the study variables.

Ethical approval was obtained from KNH-UON ERC committee, KNH research and the CCU KNH head of Department.

Results: According to the respondents, the top on the list of needs perceived to have been met were related to the dimensions of support followed by information. This was attributed to the visiting hours staring on time (41.8%) and being able to frequently see the patients (28.1%) as reported by the family members.

On the unmet needs, the leading on the list was also on the dimension of support at 97.0% and 95.5%. bivariate analysis, the associations and mean difference to the unmet dimensions according to socio demographic characteristics of the family members of CCU patients. Female had the highest unmet needs as a result of their high numbers. No statistical

difference ($P>0.05$) was found between the genders in all the dimensions except rank eight (*to have good food available in the hospital)* with the overall percentage of this unmet need being 75.8% and female likely to be the most affected.
On the mean difference between the unmet needs and age, statistical difference ($P<0.01$) was found in the dimensions (*to have a washroom near the waiting room, to get specific numbers to call at the hospital when unable to visit.*
No significance was recorded between the experience of having visited the CCU and the unmet needs.

Expected outcome: The study findings from this research will help KNH CCUs to formulate tools and interventions to cater for the identified unmet needs of family members.

CHAPTER ONE: INTRODUCTION

In this chapter, the background, statement of the problem, justification, research questions, objectives, and significance of the study have been highlighted in detail.

1.1 Background of the study

Critical Care Unit (CCU) is a ward within the hospital for providing specialized medical assistance and nursing to critically ill patients. The unit is renowned for providing high quality continuous nursing assistance and robust medical supervision to patients through sophisticated monitoring and resuscitative machines for the care of the different types of patients. These groups of patients include neonates nursed in Neonatal Critical Care unit (NCCU), Children nursed in the Pediatric Critical Care Unit (PCCU) Critically ill adults with medical conditions nursed in a Medical Critical Care Unit (MCCU) and patients with cardiac conditions nursed in a Cardiac CCU. The patients admitted are normally very ill with life threatening conditions and most of the times this affects the family members psychologically and puts them in very apprehensive states.

A patient’s admission to the CCU is usually considered a crisis by family members because of the sudden nature of critical illness and uncertainty regarding the patient’s condition and prognosis (Lee & Lau, 2003). This uncertainty is also brought about by the fact that no one wants to talk about the near death experiences normally associated with critically ill patients. Death is normally not a favorable subject to many people.

Studies have recognized that these family members have various needs. The family members undergo a lot of stress and the CCU environment adds up to this thus the necessity of handling their needs appropriately and adequately to make them more comfortable despite their psychological unease. This then makes the CCU a place where it can raise a lot of anxiety and questions and needs adequate interventions to deal with the issues. Sheaffer (2010).

Jahangiri *et al*, (2016) identified proximity as a common need of family members with patients in the CCU. He also identified comfort and communication as needs that are often ignored by the professionals working in the CCU. He further stated that communication of the patient's general condition to family members is the greatest common need, regardless of the family members educational background.

Due to their altered level of consciousness CCU patients are unable to talk about their own medical state and express themselves verbally therefore, the understanding of their family members about the severity of their condition severity emanates from information that the health care team provides. A research done by Obringer *et al*. (2012) identified the need for communication and an honest answer to questions, to be in third place by family members in a CCU in Midwest of the United States (USA). Most of the times, real time communication isn't given to these family members in due time raising a number of issues when their loved one dies.

Henneman & Cardin (2002) highlighted that despite studies done to identify the needs of such families, a gap still existed between the determination of these needs and policy actions that translate to family satisfaction. This situation is due to the difference in how the needs of family members are viewed by the healthcare team against family members' views. Kinrade et al (2009). To address this, the Needs Met Inventory (NMI) was developed. Kosco & Warren, (2000). The NMI is a modified version of Molter's CCFNI.

Motler (1979) was the first to structure family needs. The outcome of her study ranked the needs of relatives of critically ill patients from the most important to the least important as proximity, comfort and assurance.

Ngui (2006) in his study on the needs of the family members of patients at KNH CCU, identified communication and comfort of feeling welcomed by the health care team as the most important needs. He further observed that to get questions addressed truthfully by the health care team on patient's condition and recovery is vital. He also noted that family members of patients have the ability to identify their needs, but those needs are not adequately met thus necessitating the need for this study to further understand the factors influencing this scenario. Kitto *et al*., (2015) suggested that in CCUs, family needs could also be met through active participation ranging from the family members' presence to receiving patients progress reports while still getting involved in decision making and care of the patient.

1.2 Problem Statement

Previous studies have suggested the necessity of handling needs of family members appropriately and adequately to make them more comfortable despite their psychological unease. (Buckley et al 2011; Sheaffer 2010; Warren et al 2014). During the admission process to the CCU, the health care team normally fully concentrates on the patient while the family members are kept aside and for a while "forgotten," as all focus is directed at saving the life of

the patient. As the patient is being taken care of the family members also need appraisals on their patient in real time.

Additionally, there exists an increased responsibility and financial burden on family members due to the critical state of the patient, since some medical procedures cannot be done without payments made by the patient's family. Lack of proper communication from the healthcare workers regarding the conditions of their patients can also add up to this problem. In this regard, family member's proximity to their patients provides emotional support to them since hospitals do not provide adequate platform to improve the communication between the medical staff and the patient's family members. Hlahatsi *et al* (2017)

The KNH main CCU is a general CCU with a bed capacity of 21. Due to unpredictable patients' conditions like deterioration of patients' condition and deaths there tends to be large numbers of family members in the CCU environment as they wait to see or know the status of their patients such as the progress. Furthermore, visiting hours are restricted, other facilities are either limited or inadequate for example access to clean drinking water and food due to lack of a 24hr operating cafeteria, and the limited space in the waiting bay.

Communication and comfort were identified as the most important needs of family members with patients admitted at KNH CCU. Ngui (2006). The study noted meeting of these needs were below the expectation of the family members and of the nurses at the KNH CCU hence compromising the quality of family centered nursing.

1.3 Justification and Significance of the study

Communication and comfort were identified as the most important needs of family members with patients admitted at KNH CCU. Ngui (2006). The study noted meeting of these needs were below the expectation of the family members and of the nurses at the KNH CCU hence compromising the quality of family centered nursing. More than a decade since the last research was done, no other study has been done to establish whether the identified needs are still being met or not and also to find out about the unmet needs alluded to by the researcher. The factors that determined these met and unmet needs were also not brought out in this study. There is also need to identify if there are any new family needs which need to be met.

The output of this study will therefore highlight the met and unmet needs of family members with patients admitted at KNH CCU and the perceived determinants which can be grouped into institutional, staff, family determinants. The findings from this study will therefore be useful

in identifying strategies for improving CCU environment and practices in KNH CCU to address satisfaction among the family members of the critically ill patients.

The outcome of this study will also contribute to the Sustainable Development goals (SDGs) related to the health sector. The output could be used to set up the infrastructure and organization of CCUs in public hospitals in such a manner that the needs of family members are catered for. This way the experiences of family members in the different CCUs in public hospitals will almost be similar. This will then contribute to the achievement and aspirations of SDGs in the health sector by having universal set ups and equality which is one of the objectives of Universal Health Care Policy by the Government of Kenya.

1.4 Research Questions

i. What are the met and unmet needs of family members with patients in CCU at KNH?
ii. What are the determinants of met and unmet needs of family members with patients in CCU at KNH?

1.5 Broad Objective

To assess the determinants of met and unmet needs of family members of critically ill patients receiving care in CCU– KNH and how it impacts satisfaction

1.6 Specific objectives

The study shall be guided by the following objectives:

i. To determine the met and unmet needs of family members of critically ill patients at the CCU at KNH.
ii. To identify family related determinants of met and unmet needs of family members of critically ill patients in CCU at KNH
iii. To establish institution related determinants of met and unmet needs of family members of critically ill patients in CCU at KNH.
iv. To find out staff related determinants of met and unmet needs of family members of critically ill patients in CCU at KNH

1.7 Research hypothesis

Ho: The determinants are not statistically significant contributors to the met and unmet needs of family members of critically ill patients in CCU at KNH.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is an analysis of the literature on the assessment of determinants of met and unmet needs of family members with critically ill patients in CCU in various contexts. It seeks to bring an understanding of the effects of these needs on the satisfaction of family members with critically ill patients in CCU and how this impacts them.

Literature reviewed covered topics around the experiences and need of the family members of adult patients who were admitted to the CCU and the interventions that can improve the health, psychological wellbeing, and satisfaction of the family unit. A review by Scott et al (2019) on literature on families of patients in CCU, identified four broad themes: satisfaction of ICU care by families, divergent opinions on meeting family needs, factors that impact the wellbeing of the family, the capacity of the family to cope and psychosocial interventions.

The scope and review of empirical studies was guided by the objectives of the study that included: establishing the socio demographic characteristics of family members of critically ill patients in CCU at KNH, determining the unmet and met needs of family members of critically ill patients in CCU at KNH and identifying determinants of met and unmet needs of family members of critically ill patients in CCU at KNH. During the literature review, perceived determinants of the family needs were reviewed under the themes of family related factors, institutional, staff related factors of the met and unmet needs of family members.

According to Mc Connell & Moroney (2015) needs of family members with patients in the CCU are regarded as those needs to provide maximum support to family members with patients' in the CCU. These needs are broadly categorized into five distinct groups which include assurance, proximity, prompt communication or information which is necessary for the family member and support which includes financial, support structures and comfort which are termed personal needs. These needs are what brings out the satisfaction in these family members however minor they sound.

Many studies have been conducted in different parts of the world to establish and group family needs. Molter (1979) created the Critical Care Family Needs Inventory (CCFNI). Kinrade, *et al (*2009*).* This tool has sets of questions specific to the needs of family members. (Molter & Leske, 1995). A Likert scale of 1-4 rates the importance of each of the questions to respondents

starting from the least important to the most important. The questions are grouped into needs for comfort, support, proximity, information, and assurance (Molter & Leske, 1995). Research reports that family needs are not appreciated and thus their needs remain unsatisfied. Once the family needs are appreciated and well understood by all, there will be better outcomes in terms of satisfaction and better relationships between the family members and the staff attending to these critically ill patients.

(Kotkamp-Mothes, Slawinsky, Hinderman, & Stauss 2005, Molter 1979). Henneman & Cardin (2002) highlighted that despite studies done to determine family needs, a gap still existed between identifying the needs and policy actions that translate to family satisfaction. This situation is due to the difference in how the needs of family members are viewed by the healthcare team against family members' views. Kinrade et al (2009). Needs Met Inventory (NMI) tool is a modification of the CCFNI, with sets of questions pertaining to specific family member needs based on the CCFNI together with indicators of whether the needs were met or not. (Kosco & Warren, 2000). The researcher used this tool to validate the met and unmet needs of family members with critically ill patients in CCU KNH.

Globally, Browning and Warren (2006) in their study of unmet needs of family members in the MCCU, reported that the first top ten usually met/always met needs and the top ten sometimes met /never met needs of the studied family members. The most met need was under communication while those that were perceived as unmet were under the assurance subscale. Similarly, in a study on the self-perceived needs of Jordanians adults who had family members in CCUs, explored whether those needs were being met. It found that the ten the most important needs of the studied population were in the Assurance and Information subscales. Use of the NMI tool showed that none of the ten most important needs identified in the study were perceived as being met. (Omari, 2009). Shaw *et al* (2011) found out that family members were unhappy with the psychological support they received from CCU health care team due to denied access to their patients. The restricted access to the CCU is a big issue to family members'. It creates a lot of emotional distress to the family members by not being close to their patients increases the need for both communication and psychological support thus making them experience symptoms of post-traumatic stress disorder (PTSD). Severe PTSD is affiliated with increased rates of anxiety, depression and decreased quality of life.

Regionally, Hlahatsi *et al.* (2017) reported that the most pressing need of household members of patients who have been admitted in the critical care unit in South Africa was to receive clear, honest, and understandable information about the condition of their patients. They further

indicated that dissemination of main information to include the provision of literature regarding the operations of the CCU as it provided family members with ready information whenever in doubt. They suggested that information on the visiting hours, hospital contacts and all that entails the CCU environment be availed in a written document to the family members. Their study found that information about the patient's progress was the greatest need in South Africa, regardless of the family members' educational background. They observed that during the CCU admission period, communication appeared to influence family members' perceptions of whether their needs were met or unmet since patients in CCU were usually too ill to take part in communication and in making important decisions regarding their health.

In this study, literature review was carried out with an objective to associate all research work done on the NMI needs of family members' households with determinants perceived by the family to be causing met and unmet needs. The perceived needs elements of proximity, support, information, comfort, and assurance were reviewed under the themes of family related, institutional related, staff related determinants of the unmet met and unmet needs of family members.

2.2 Family related -Socio-demographic

2.2.1 Gender

Studies done linked the female gender with a greater risk of developing the symptoms of PTSD symptoms following an admission of a loved one due to critical illness. (Azoulay et al., 2005; Gries et al ;2010) while other studies reported deviant results (Anderson et al.,2008; Garrouste-Orgeas et al.,2012; pillai et al., 2010).

2.2.2 Finance

A study by Mallampalli et al (2005) on the unmet needs of family members with critically ill patients, discovered that among the most frequently unmet needs were financial assistance with lodging and boarding for low income family members, more liberal and/or consistent visiting hours among other needs. This study therefore would also want to find out more about the socio economic status of the family members in regard to the met and unmet needs.

2.2.3 Education level

Jahangiri *et al*, (2016) observed that regardless of the relatives' educational level, family members' needs regarding the information on the general condition was the greatest

commonest need. Similarly, a study by Hlahatsi *et al.* (2017) found out that the most pressing need in South Africa was to receive honest, understandable, and clear information regarding the condition of patients. This was irrespective of the family members' educational level. They suggested the documentation in an information booklet of all that entails the CCU environment and the support structures for use by family members even by those with minimal level of education. This feature is reported to boost information hence increased satisfaction levels among the family members.

Pillai et al. (2010) reported an association between education level and the occurrence of PTSD. Family members with a poor education (those that never completed school) had a significantly higher risk of developing PTSD symptoms in the population studied.

2.2.4 Religion and culture

In many religions and cultures, no one wants to talk about the near death experiences normally associated with critically ill patients. Death is normally not a favorable topic to many people. The CCU is a place associated with high mortality rates.

2.3 Institution related

These determinants are those that are linked to the institution or the hospital offering care. That's the hospital housing the CCU.

2.3.1 Comfort and physical infrastructure

Sheaffer (2010) found out that the central need for comfort was not considered important by family members during the first few hours of admission. What was surprising from the findings of this study was that convenient parking was highly ranked contrary to findings from previous studies. Another study by Schubart *et al*, (2015) observed that in hospitals in the state of Bahia in Brazil most family members indicated their comfort needs were met, while low level of interest towards the family members and flexible visiting hours as being unmet. Further, during the long hours they spent at the bedside of loved ones in the CCU, family members felt helpless and frustrated and hence the need for comfort in the CCU.

Shorofi et al (2016) observed that due to the unpredictable condition of patients, psychological conflicts, prognosis, role changes, financial concerns, and unfamiliarity of the intensive care environment, especially in the first 72 hours after admission, trigger feelings of anger, shock, guilt, denial, depression, and despair within household members. Family members were also

observed to be anxious and insecure due to the stressful environment associated with CCU. These stressful circumstances come about because of the sophisticated CCU machinery, the continuous monitoring of the patient, and the several alarms generated by the different medical devices within the CCU. This situation delayed, the recovery of patients and posed emotional, mental, and physical distress to the family members. They further observed that family members had difficulty coping with their stress and emotions and often used maladaptive coping strategies which then necessitated the CCU staff to put measures in place to increase the level of comfort for family members with patients in the CCU to reduce the effects of the stressful CCU environment. Without proper support the family members have a lot of stress.

Bijttebier (2015) adds that many health care professionals have since realized that attending to the comfort needs of family members improved patients' outcomes in recovery and their wellbeing. Empowering the health care personnel on the needs was therefore paramount. He further noted that while health care professionals were required to support family members during the critical period of a patient's admission, ensuring their wellbeing and ability to relax, feel warm and cared for reduces the stress of both family members and the health care team. He indicated that family members need to sit in comfortable seats while waiting on their patient, accessibility to clean bathrooms and toilets as well is necessary, a place to rest when a family member feels fatigued on attending to their loved one, should be present as these are among the factors that ensure the family members comfort in the hospital as they care for their patient in the CCU.

2.3.2 Proximity

According to Leske and Molter (1983), proximity refers to family members being allowed to visit more often, allowed to stay with the patient, allowed to visit any time and to have someone specific person to call and talk to when unable to visit.

Hashim (2012) observed that the two most important needs were open visitation and assigned waiting rooms for family members' who were in constant touch with the patient. She further noted that open and rigid visitations affected the satisfaction of family with patients admitted at CCU.

According to Carlson & Marcia (2015), respondents reported that settings that had an open visitation policy, the family members really appreciated the unrestricted access to their CCU patients. They found out that family members that were issued with unclear information or

incomplete information had their needs unmet. The most unmet needs were those related to information and proximity. Therefore, receiving clear information translated into met needs.

Gaeeni, et al (2015) in their study concluded that family members need proximity to the patient's bedside so as to be able to monitor the progress of their loved one as they receive care and treatment. They found that critical care nursing involved family centered care which included active participation of family members with regard to patient care and treatment. This required constant presence and ability to access the CCU regularly and with ease. Proximity therefore considered the family's access to their critically ill patient as often as possible.

2.4 Staff related

2.4.1 Communication

According to Molter and Leske (1995), communication needs for family members with patients admitted in the CCU include being given feedback on patient's status, what is being done medically on the patient, accuracy on what is being done for the patient, knowing why certain things are being done to the patient, to have daily conference with physician and to be called at home due to changes in the patient's health status. Similarly, Sheaffer (2010) in his study found that the needs of family members of patients in the CCU included communication, among other needs. Family members wanted direct participation in the decision regarding care and treatment of the patient in the CCU with the healthcare team instead of only frequent status updates.

Bijttebier (2015) found out that whenever there was an improvement in communication, there was a notable improved satisfaction among patients' family members. Family members were less anxious and more satisfied when educated by the healthcare team. Furthermore, important met communication needs identified included phone calls while away about updates in the patients' condition and individual family members being met by the health care team after admission.

Meaningful communication enabled family members to cope with the crisis at hand by ensuring that communication was honest while still offering hope. (Sklenarova, 2015) found out that communication also involved how regularly information was given and how interactive the process of communication was in addition to how it was transferred and shared to the family members.

Carlson & Macia (2015) suggested that family members valued information on the modalities of treatment during the admission period especially for patients undergoing long term treatment.

According to Shorofi *et al* (2016), family members' denial of information on the condition of their patient in CCU caused family conflicts between them and the healthcare team. Generally, family members appreciated unrestricted access and clear information regarding the welfare of their patients.

2.4.2 Stressful CCU Environment

Shorofi *et al* (2016) observed that fear of the unknown and the unpredictable patient's condition and prognosis caused psychological conflicts together with the unfamiliarity of the CCU environment, in the first 72 hours after admission, trigger feelings depression, despair, shock, guilt, anger, and denial within household. Family members were also observed to be anxious and insecure due to the stressful environment associated with CCU. These stressful circumstances are comprised of the sophisticated CCU machinery, the continuous monitoring of the patient, and alarms of medical devices within the CCU. This situation delayed the recovery of patients and posed physical, emotional, and mental distress to family members. They further observed that family members had difficulty coping with their stress and emotions and often used maladaptive coping strategies, which then necessitated the CCU staff to put measures in place to increase the level of comfort for family members with patients and to reduce the effects of the stressful CCU environment. The CCU environment should therefore be modified to make the family members more comfortable which will enhance their satisfaction and meeting of their needs.

Sklenarova, (2015) indicated that admission of a patient to CCU is stressful not only to patients but also their family members. He also noted that admission to a CCU is a crisis for both parties, because they are not prepared adequately to deal with such stressful situations. Having a loved one in a CCU impairs family integrity, making some changes in family roles and responsibilities.

2.4.3 End of Life

According to Waren (2012) family members' experiences with End of Life (EOL) in the CCU desired more frequent communication with the health care teams, and access to and comprehension of information with the aim of improving satisfaction when a perceived better

diagnosis, prognosis, and treatment as seen by family members. However, an approach common in most CCU setups of hearing the actual medical discussions during rounds increased fear, confusion, and doubts about care when having EOL discussions.

In addition, family members of bereaved CCU patients confirmed a relationship existed between perceived effectiveness of communication, proximity to the patient, and satisfaction with care. (Hsiao *et al*, 2017).

2.4.4 Psychological support

Bailey, (2010) noted family members are key components of the care approach and played major roles in increasing the psychological wellness of a critically ill patient. Their meaningful interaction and collaboration with the patient and the health care team is crucial. However, psychological distress lowers a family member's ability to support their patient.

2.4.5 Assurance

A study by Sheaffer (2010), in his findings on assurance, found out that family members indicated need for assurance and to receive positive feedback about their patients' condition or prognosis, from the healthcare personnel. Nearly all the family members were optimistic about the patient's medical status and recovery. This is the reality and assurance and counselling needs to be taken seriously by the CCU teams attending to these patients.

2.5 Summary and Research Gap

CCU care should take in to consideration the perspective of families of whether their needs are being met or not, evaluation and outcome of interventions, and satisfaction with the care process to improve their wellbeing and psychological health (Cox et al, 2017).

From the literature reviewed and the summary done in a scoping review report by Scott et al (2019), studies have been undertaken on family needs, family satisfaction needs, psychological outcome needs and psychological interventions were identified. These reviews concluded that there was a research gap need for further research to increase the understanding of family needs and their perspective of whether their needs were met or not.

This research study aims to address this identified gap for the case of CCU KNH by attempting to understand the relationships between the met and unmet needs of families and their perceived determinants.

2.6 Theoretical Framework

A theory explains, predicts and challenges existing knowledge within limits of critical bounding assumptions. A theoretical framework thus explains why the research problem under study. (DF Polit., CT Beck. 2017 ed).

2.6.1 Neumans systems model (Newman 1995)

According to Betty Neuman, the Newman systems is an unequalled, open-system-based outlook that offers insights on how to approach a plethora of issues. According to her, the system mimics a boundary for each client, a group, or many groups and can be a social issue.

The Neuman systems model (Neuman, 1995) was adopted.

The person, in this model, could be oneself, a family member or the community. For purposes of this study the client is the family members' of a patients' admitted in the CCU KNH. The model therefore views the family member holistically as per their environment and how different stressors influence the client's health and wellbeing.

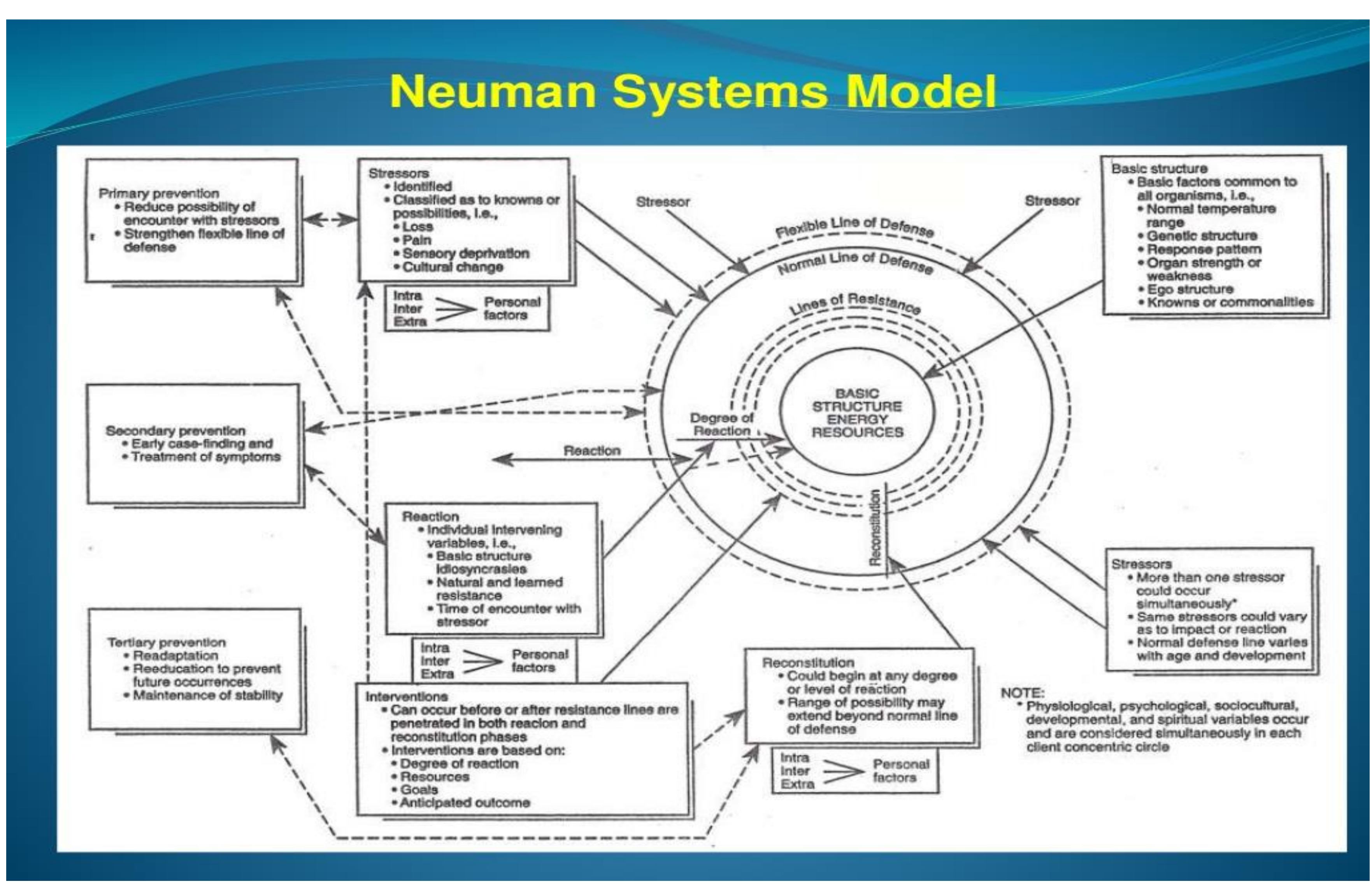

Fig 2.1. The Neuman systems model: Neuman B. (1995)

A stressor can refer to any environmental determinant with the ability to disrupt the stability of the system. Therefore, admission of a family member to the CCU is assumed to be a source of stress for the family members participating in this study.

Neuman (1995) evaluated the individual as a basic structure which consists of survival factors (basic) common to all species as shown in figure 2.1 above. Concentric circles, also known as the lines of defense and resistance surround it. These lines of resistance flow around the basic system. They are in turn circled by lines of normal defense and a modifiable line of defense. All these are an intertwined group of protective and adaptive mechanisms which attempt to maintain family member's survival instincts.

The Neuman systems model cover five variables of the client in the assessment of the core structure and the lines of resistance and defense. There are the psychological, physiological, developmental, sociocultural, and spiritual variables. Signs and symptoms appear once these flexible lines of defense are broken. The nursing interventions aimed at promoting wellness and preventing illness. This adaptive line of defense is circles and safe guards the normal line of defense. This is a dynamic ever changing complex part of the defense mechanisms, which protects the family member from any stressor whatsoever. This normal line of protection, is a gauge, whereby the health status of the family member can be measured. Once the basic line of protection is altered, the family member will show symptoms of sickness. This the activates the protection system or the immunity following such an attack, the protector system has both internal and external sources which support the initial system.

Neuman then views nursing as the connection between family member, state of wellness, and the surrounding. Nursing interventions are classified to three according to the stage of the entry of stressor. Namely the primary, secondary, and tertiary prevention. Primary prevention happens early enough when the stressor has been identified but hasn't caused any harm to the family member, its aim is to strengthen the family members flexible line of protection so as to counteract any reaction. Secondary prevention follows after the appearance of signs and symptoms, which is meant to strengthen the immune system. The main outcome therefore is to bring back a state of wellness to the patient. Lastly tertiary prevention deals with the state wellness and maintaining it once there's endurance which then goes way back to the initial stage of primary prevention.

As earlier alluded for the aim of this study, the client is the family member of a patient in the CCU. The patient's admission to the CCU is the main stressor to the family system in this

study. The family structure is therefore composition of the family including its members and the relationships amongst them. The family's functioning level and coping mechanisms correlate with the lines of protection or immunity. There are four variables which are the physiologic variable comprises of the basic needs like food, rest, and shelter; the psychologic variable includes the family's mental and emotional health and determinants like the support systems in the family unit; the spiritual variable covers all the spiritual beliefs and cultural values while the developmental variable relates to mostly the developmental stages of the family, its cognitive abilities, and past life experiences of each individual family member including any previous experience with the CCU.

Lastly, the sociocultural variable consist of the relations in the family and with the significant others in the community and to include the socioeconomic and cultural backgrounds.

The main objective of primary prevention in this study is to assess the importance of identified needs of family members of patients in the CCU KNH. Identification of these needs early enough can lead to early interventions to be formulated to support the family, strengthen their existing coping mechanisms, and enhance family functioning so that the family may, in turn, support their critically ill family member. The family that is already showing signs of stress requires secondary prevention thus can be handled appropriately. Upon achieving resistance the family requires tertiary prevention to maintain it. By getting to know solutions best able to meet their needs as perceived by the family members guides the CCU staff in differentiating between positive inputs and outputs. The relations derived between the importance of needs and the degree to which they were met or unmet may also help the staff to gauge the quality of existing interventions and be able to work on them to improve them. Because of its holistic perspective and focus on prevention, the Neumans systems model fits quite well with the concept of the family as the centre of care.

2.7 Conceptual Framework

The independent variables in the study are the family related determinants, institution related determinants and staff related determinants. The dependent variables are met and unmet family needs as well as their determinants. As shown in figure 2.2, depending on the interactions of the independent variable of family needs during the investigation period of participants, the relationship with the dependent variables and the outcomes will be either a satisfied or an unsatisfied family member.

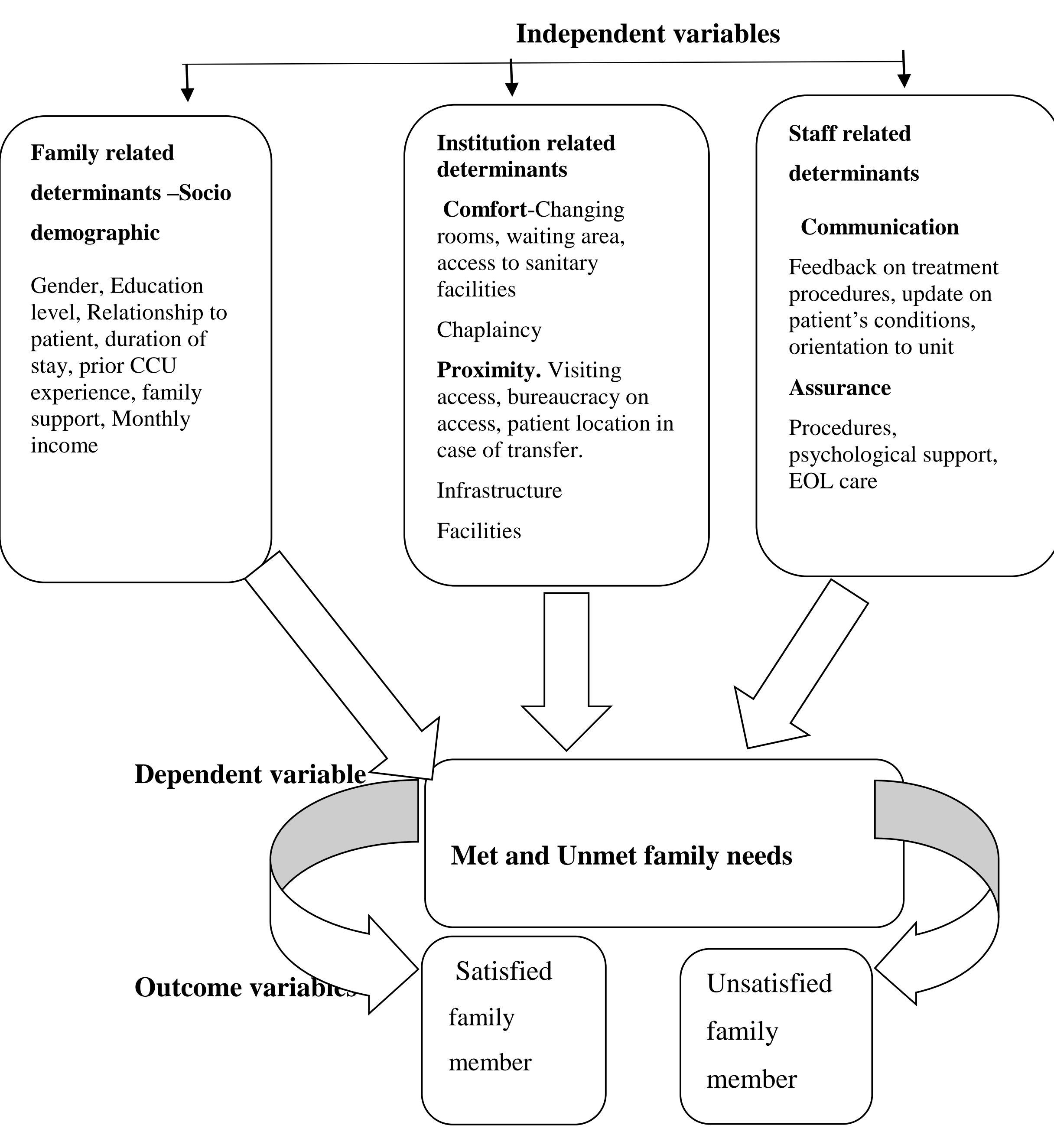

Figure 2.2: Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines the methods and techniques for the research which includes the research design, study population and sampling design, data collection methods, research procedures and data analysis methods.

3.2 Study Design

The research design employed by the study was a descriptive cross sectional design. Cross-sectional designs involve the collection of data once the phenomena under study are captured at a single time point. Cross-sectional studies are appropriate for describing the status of phenomena or for describing relationships among phenomena at a fixed point in time. (DF Polit., CT Beck. 2017 ed).

3.3 Study Area

The study was carried out at the Critical Care Unit (CCU) Kenyatta National Hospital (KNH). KNH is a National Referral and Teaching Hospital, which is about 4km from the central business district of Nairobi city, off Ngong Road, on Hospital Road. The hospital was started in 1901 and has a bed capacity of about 40 and became a state corporation in 1987. Currently the hospital has a bed capacity of 2000 and is partially supported by the government. The hospital provides facilities for medical education to the University of Nairobi, at undergraduate and post graduate levels and to Kenya Medical Training College at certificate, diploma and higher diploma levels. The hospital also provides facilities for training in nursing and other health allied courses at KNH Staff Training Centre.

The hospital receives patients referred from other hospitals within Kenya and sometimes from Eastern and Central Africa for specialized health care in its specialized units such as Renal Unit, Critical Care Unit, Burns Unit, Newborn Unit among others. The Critical Care unit is situated on the first floor of the main hospital building towards old hospital wing. It's opposite Burns Unit and Renal Unit. It has a bed capacity of 21 patients. The CCU admits patients from within and outside the Country though most of them are referrals from Private and Provincial Hospitals within the

Country and transfers from the Hospital's General wards, Labor ward, Accident and Emergency Department and Theatres. There are other CCU/CCUs in KNH which include, Cardiothoracic, Medical, Pediatric and Neonatal. The study will be conducted at KNH Main CCU.

3.4 Study Population

The study population was the family members visiting patients at KNH CCU over a period of two months due to the Covid-19 pandemic, which slowed down the process. The period which was one month initially was taken considering that the average period that the average length of stay (ALOS) in the CCU is ten (10) days before being transferred to other wards or discharge due to improved condition (KNH Health information services, 2019).

The target population was the family members visiting patients who have stayed for more than 72 hours at KNH CCU over the two months' study period. The average number of families under this category is two (2) family members per patient. For the two cycles of admission the target population was 84 family members.

3.5 Sampling size determination and sample technique

3.5.1 Sample Size Determination

The sample is a representative number in the population to be studied.

The sample size was determined using the Cochran's formula (IFAS, 2009) as follows

$\boldsymbol{n} = \frac{\boldsymbol{z^2pq}}{\mathbf{d^2}}$ where

n= the desired sample size if the target population is more than 10,000

z= the standard normal deviation at the required confidence Interval (CI). In this study it will be 95% with a 5% margin error.

p=the proportion in the target population estimated to have characteristics being measured. If there is no estimate available for the proportion in the target population assumed to have the characteristics of interest, 50% should be used (Fisher et al, Mugenda and Mugenda 2003).

Q=1-p

D= the level of statistical significance set < 0.005

For this study, the proportion of the target population was not known hence 50% was used i.e

P=0.5, z= 1.96 and a level of statistical significance of 0.05 will be desired. The sample size will be calculated as follows

$$n = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2}$$

n=384

Since the target population was less than 10000, the required sample size is smaller. A final sample estimate (nf) was calculated using Fisher et al formula (Mugenda and Mugenda 2003).

$nf = \frac{n}{1+(n-1)/N}$ Where

nf= the desired sample size (when the population is less than 10,000)

n= the desired sample size (when the population is more than 10,000)

N= the estimate of the population size

The estimate of the population size is 84 family members.

$nf = \frac{384}{1+(384-1)/84}$= 384/1+383/84=384/5.55952=69.077=69 family members

The sample size to be used was 69 family members.

3.5.2 Sampling Technique

Sampling is a deliberate choice of a number of people who will provide the data from which conclusions will be drawn and generalized on the sample it represents (Jankowicz, 2002).

Convenient sampling method was used in selecting the patient's family members to participate in the study. Family members were identified and selected as per their availability and accessibility within the visiting hours. The convenient sampling was therefore appropriate since it gave a chance to the respondents with sufficient amount of time and emotional stability to participate in the research. This method of sampling was the adopted method since the respondents' participation is not guaranteed due to the frustrations and sad status they are in because of the critical illness of their loved ones.

3.6 Inclusion and Exclusion Criteria

3.6.1 Inclusion Criteria

- Family members who were over 18 years of age.
- Family members with patients who had stayed in the CCU for more than 72 hours.
- Family members who would had no language barriers.

3.6.2 Exclusion Criteria

- Distant relatives to the patients, patient's friends and any other person who happened to be a one-time visitor to the patient.
- Family members whose patients were unstable or being resuscitated.

3.7 Data collection instrument

A semi-structured questionnaire was used as a data collection instrument for this study. Data collection allowed for the dissemination of accurate information and bringing out meaningful programmes out of the study. Kombo and Tromp (2009)

The questionnaire comprised three (3) parts. The first part had items that elicited the participant's socio-demographic variable data. The second part comprised of needs derived from the CCFNI and NMI while the third part comprise establishment of the determinants of the met and unmet needs in part two.

The questionnaire was administered by the researcher who asked questions in the questionnaire and filled in the responses. Data was also collected by the researcher this was part of the KNH regulations in view of Covid-19 to minimize handling of the questionnaires by family members.

3.8 Validity and Reliability

To ensure the validity and reliability of the tool, before the data collection exercise, the questionnaire was pretested. The pretest was conducted using a percentage of 10 percent of the sample size that was 7 respondents on the Medical CCU. This was done to make sure that there was instrument reliability and instrument validity. The pretest data was then analyzed using SPSS version 25 to ensure that a threshold Cronbach's alpha of 0.7 was met for reliability of the data collection instruments. The results from the pretest were then used to improve and strengthen the data collection instrument.

The draft questionnaire was pre-tested and the outcome used to improve the final questionnaire which was typically, to refine and revise the questionnaire to help ensure the validity and reliability of the measures, as well as making it more user-friendly. (Cavana, Delahaye & Sekeran 2001)

Mugenda and Mugenda (2003) reported that a pre-test sample should be between 1% and 10% depending on the sample size.

3.9 Data collection procedures

Data was collected over two (2) months period from 24th July to 30th September 2020.

3.9.1 Recruitment and consenting procedures

Informed Consent form was used to recruit and obtain consent of participants to participate in the study.

3.9.2 Approvals

Permission was sought from KNH/UON Ethics and Research Committee, KNH research and programs and CCU administration.

3.10 Data management and analysis

Filled questionnaires were checked for completeness, sorted and coded and entered into statistical package for social sciences (SPSS). Collected data was analyzed using SPSS version 25. Descriptive statistics was presented using frequency tables, bar graphs and percentages. Data analysis is the application of reasoning to understand the data that has been collected with the aim of determining consistent behavior and summarizing the relevant details that comes out of the investigation (Zikmund, Babin, Carr & Griffin, 2010).

Descriptive analysis was conducted with the aim of describing various patterns of the key variables. Descriptive analysis is regarded as a preliminary for any quantitative analysis. The descriptive statistics used in this study were mean average, standard deviation frequency distribution and percentages (Trochim, 2006).

3.11 Study Variables

The study had the following variables

i. Dependent variables
- This consisted the met and unmet family needs

ii. Independent Variables
- Family related determinants
- Institutional related determinants
- Staff related determinants

3.12 Ethical Considerations

The four fundamental ethical principles were upheld based on the philosophical standards of Non-maleficence, beneficence, respect for autonomy, and justice. These guided in applying ethical approval by encouraging the researcher to anticipate the ethical tensions and challenges which might come about during the study. (Wagoro &Bhatt,2012; Wagoro & Duma ,2018).

Additionally, approval was sought from the supervisors after the completion of the proposal writing.

a) The researcher submitted the proposal to the KNH/UON Ethics and Research Committee for approval
b) Permission was sought from the study area. For the case of this study permission was obtained from the head of department in charge of CCU.
c) Informed written consent from the participants of this study was obtained using the consent form which formed part of the questionnaire document.
d) Confidentiality: Participants data and information were kept in confidence by the researcher and were only used for the purpose of the study.
e) Covid-19 precautions
    - The researcher interviewed the participants to avoid contact of questionnaire paper.
    - Both the participants and the researcher wore face masks provided by the researcher.
    - Social distance of at least 1-1.5 meters was maintained between the researcher and the participant during the interviews.

- Hand washing and sanitization by the researcher and participants before, during and after interviews was practiced.

3.13 Dissemination Plan

The completed research will be shared with the school of Nursing Sciences.

The same will be disseminated at the CCU-KNH.

The final research dissertation will be availed at the University of Nairobi Libraries and online repository and published in a peer reviewed journal.

3.14 Study limitations

The study was limited by the data collection process where the sad situation of some family members made them not willing to participate in the study.

The other challenge experienced during the study was the availability of the patient's family members as visiting hours were shorter and were usually expected that they stayed away from the patients after the visiting hours, hence making them inaccessible to the researcher.

In addition, during the period of conducting this research, the country was experiencing the Covid-19 pandemic. This on its own slowed up the process of data collection because of the restrictions imposed by WHO and Ministry of Health. Limited visits and visitors were allowed by KNH CCU.

CHAPTER FOURFINDINGS/RESULTS AND DATA ANALYSIS

4.1 Introduction

The purpose of the study was to assess the determinants of met and unmet needs of family members with patients in the CCU KNH. A total of 69 family members with patients in the CCU KNH were approached and 97.1% (n=67) were interviewed and questionnaires fully completed with a non-response rate of 2.9%. This chapter presents, analyses and interprets data obtained during the research according to the objectives of the study. These include identification of met and the unmet needs of family members with patients in the critical care unit, and the assessment of their related determinants. The results are presented using frequency tables and bar graphs.

4. 2 Socio Demographic Characteristics of research respondents

The distribution of the demographic characteristics of the CCU family members is shown in Table 4.1 and 4.2 which included the respondents gender, age, income, level of education, CCU experience, religion and relationship to the patient.

Table 4.1 Socio demographic characteristics of the respondents

Variable	Frequency(Percentage)
Gender	
Male	25(37.3)
Female	42(62.7)
Mean Age	37.9(10.6) (18-62)
Mean number of days in CCU	11.4(20) 1-157
First time Experience	
Yes	57(85.1)
No	10(14.9)
Education Level	
None	1(1.5)
Primary	5(7.5)
Secondary	34(50.7)
Tertiary	26(38.8)
Missing	1(1.5)
Mean monthly income	35841(36510) 6000-180,000
Religion	
Christianity	64(95.5)
Islam	2(3)
Missing	1(1.5)

Table 4.2 Relationship of the respondents to the patients

Relationship	Frequency	Percent
Spouse		
Husband	14	20.3
Wife	16	23.1
Children		
Daughter	3	4.3
Son	5	7.7
Parents		
Father	6	8.7
Mother	8	11.7
Extended Family		
Sister	7	10.1
Brother	2	2.9
Nephew	1	1.4
Cousin	2	2.9
Friends		
Friend	1	1.4
Missing	4	5.8
Totals	**69**	**100**

More than half 42(62.7%) of respondents were female while the mean age was 37.9 years with minimum being 18±10.6. The oldest participant was 62 years. The mean number of days spent by the patients in CCU was 11.4 days with the highest stay being more than five months. A majority of the respondents 57(85.1%) indicated that it was their first experience to be in the CCU. This means that these family members required a lot of information about the CCU to enable them demystify their thinking about the CCU and also to assure them about the care of their patients. The average monthly income was 35,841 with the least income being 6000. Almost all the respondents were Christians.

On being probed on their relationship to the patients, the spouses were the majority indicating their closeness to the patient.

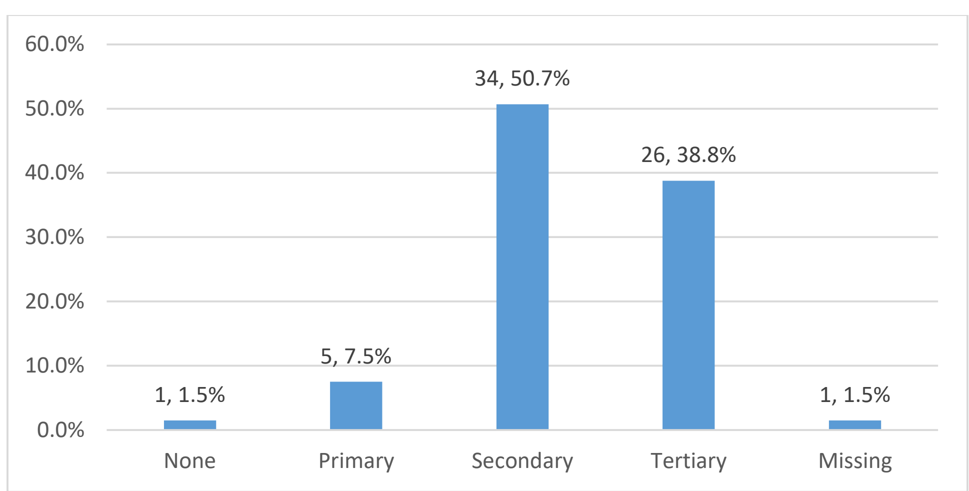

Figure 4.1 Education level of the respondents

From figure 4.1, majority of the respondents were literate with 89% (n=70) having attained secondary level and above.

4. 1 Status Of Met And Unmet Need

Table 4.3 Summary of Status of met and unmet needs according to family members

Needs	**Unmet F (%)**	**Met F (%)**	**Dimension F (%)**
To have friends nearby for support	61(89.5)	7(10.5)	Support
To have someone to help with financial problems	64(95.5)	3(4.5)	Support
To have a pastor visit	65(97)	2(3.0)	Support
To have someone be concerned about your wellbeing	59(88.1)	8(12.0)	Support
To be informed about other people that could help with issues within the CCU	60(81.9)	7(10.5)	Support
To have good food available in the hospital	59(88.0)	7(10.5)	Comfort
To have comfortable furniture in the waiting room	60(89.6	7(10.5)	Comfort
To have a washroom near the waiting room	59(88.1)	8(12.0)	Comfort
To have visiting hours start on time	39(58.3)	28(41.8)	Proximity
To see the patient frequently	49(73.7)	19(28.1)	Proximity
To have the waiting room near the patient	59(82.1)	12(17.9)	Proximity
To have flexible visiting hours	48(71.6)	19(28.4)	Proximity
To get specific numbers to call at the hospital when unable to visit	62(92.5)	5(7.5)	Support
To have another person with you when visiting the CCU	56(83.5)	11(16.5)	Support
To talk to the same nurse on a daily basis	61(91.0)	8(9.0)	Information
To be told about someone to help with family problems	56(83.6)	10(14.9)	Support
To be told about chaplain services	63(94.1)	3(4.5)	Information
To be told about the patient's prognosis	49(91.1)	18(26.8)	Information
To have an orientation of the CCU environment if a first timer	61(87.9)	6(9.0)	Information
To be in communication with the doctor daily	59(88.1)	8(12.0)	Information
To have questions answered honestly	54(79.1)	14(20.9)	Information
To be directed as to what to do at the bedside	59(88.1)	8(12.0)	Information
To know which staff members could give what type of information	56(83.6)	11(16.5)	Information
To feel there is hope	55(82.1)	11(16.4)	Assurance
To be assured that the best care possible is being given to the patient	52(77.6)	15(22.4)	Assurance
To know exactly what is being done for the patient	58(86.6)	9(13.5)	Information
To feel accepted by the hospital staff	57(85.0)	10(15.0)	Assurance
To be informed about EOL	61(91.0)	6(9.0)	Information
To be assured it is alright to leave the hospital for a while and be accepted back	60(89.5)	7(10.5)	Assurance
To feel it is alright to be emotional	59(88.1)	8(12.0)	Support
To have explanations given that are understandable	56(83.6)	11(16.4)	Information
To be told about transfer plans before being executed	56(83.5)	10(16.4)	Information
To be called when away about changes in the patient's condition	56(83.6	11(16.4)	Information
To receive information about the patient at least once daily	59(88.0)	8(12.0)	Information
To see that the hospital personnel care about the patient	54(80.6)	13(19.4)	Assurance
To be told specific issues concerning the patients progress	48(71.6)	19(28.4)	Information

4.2 1 The Top Ten Met Needs according to the family members

Table 4.4 % age Score of the Ten Met Needs according to the family members.

Rank	Need	Dimension	% Score	Determinant
1	To have visiting hours start on time	Support	41.8	Institution
2	To be told specific issues concerning the patients progress	Information	28.4	Staff
3	To have flexible visiting hours	Support	28.4	Institution
4	To see the patient frequently	Proximity	28.1	Institution
5	To be told about the patient's prognosis	Information	26.8	Staff
6	To be assured that the best care possible is being given to the patient	Assurance	22.4	Staff
7	To have questions answered honestly	Information	20.9	Staff
8	To see that the hospital personnel care about the patient	Assurance	19.4	Institution
9	To have explanations given that are understandable	Information	16.4	Staff
10	To know exactly what is being done for the patient	Information	13.5	Staff

The overall most important need that are met according to the CCFNI and NMI dimensions as identified by the family members is the need for support (41.8%), followed by information and support at (28.4%) each, proximity (28.1%), information (26.8%), and assurance (22.4%). The results showed that "To have visiting hours start on time" (41.8%) was ranked first. This was followed by "To be told specific issues concerning the patients progress" (28.4%) and at number three was "To have flexible visiting hours" at (28.4%). The above needs are only met by staff and institution for a limited number of family members, while the rest remains unmet.

4.2 2 The Top Ten Unmet Needs according to the family members

Table 4.5: % age Score of the Top Ten Unmet Needs according to the family members of CCU patients.

Rank	Need	Dimension	% Score	Determinant
1	To have a pastor visit	Support	97.0	Institution
2	To have someone to help with financial problems	Support	95.5	Institution
3	To be told about chaplain services	Information	94.1	Staff
4	To get specific numbers to call at the hospital when unable to visit	Support	92.5	Institution
5	To be informed about EOL	Information	91.0	Staff
6	To talk to the same nurse on a daily basis	Proximity	91.0	Staff
7	To be assured it is alright to leave the hospital for a while and be accepted back	Assurance	89.5	Staff
8	To have a washroom near the waiting room	Comfort	88.1	Institution
9	To have good food available in the hospital	Comfort	88.0	Institution
10	To have an orientation of the CCU environment if a first timer	Information	87.9	Staff

Table 4.5 summarizes the ten most unmet needs of family members of CCU patients.

The overall most unmet needs according to the CCFNI and NMI dimensions identified by the family members is the need for support at (97.0%) and (95.5%), followed by information (94.1%), support (92.5% and information (91.0%). The results showed that "To have a pastor visit "(97.0%) was ranked first. This was followed by "To have someone to help with financial problems" (95.5%), "To be told about chaplain services (94.1%) and "to get specific numbers to call the hospital when unable to visit "(92.5%) respectively. Generally, most of these unmet needs fall under the determinants of staff and institution which means that CCU KNH needs to do a lot in terms of providing support, information, comfort and assurance to meet these unmet needs.

4. 2 Determinants Of Met And Unmet Needs

Responses were received where family members attributed the met and unmet needs to determinants.

4. 3 Status Of Met And Unmet Need

Table 4.6 Summary of Status of met and unmet needs according to determinants

Needs	Unmet F (%)	Met F (%)	Determinant F (%)
To have friends nearby for support	61(89.5)	7(10.5)	Family
To have someone to help with financial problems	64(95.5)	3(4.5)	Family
To have a pastor visit	65(97.0)	2(3.0)	Family
To have someone be concerned about your wellbeing	59(88.1)	8(12.0)	Family
To be informed about other people that could help with issues within the CCU	60(81.9)	7(10.5)	Institution
To have good food available in the hospital	59(88.0)	7(10.5)	Institution
To have comfortable furniture in the waiting room	60(89.6	7(10.5)	Institution
To have a washroom near the waiting room	59(88.1)	8(12.0)	Institution
To have visiting hours start on time	39(58.3)	28(41.8)	Institution
To see the patient frequently	49(73.7)	19(28.1)	Institution
To have the waiting room near the patient	59(82.1)	12(17.9)	Institution
To have flexible visiting hours	48(71.6)	19(28.4)	Institution
To get specific numbers to call at the hospital when unable to visit	62(92.5)	5(7.5)	Institution
To have another person with you when visiting the CCU	56(83.5)	11(16.5)	Institution
To talk to the same nurse on a daily basis	61(91.0)	8(9.0)	Institution
To be told about someone to help with family problems	56(83.6)	10(14.9)	Staff
To be told about chaplain services	63(94.1)	3(4.5)	Staff
To be told about the patient's prognosis	49(91.1)	18(26.8)	Staff
To have an orientation of the CCU environment if a first timer	61(87.9)	6(9.0)	Staff
To be in communication with the doctor daily	59(88.1)	8(12.0)	Staff
To have questions answered honestly	54(79,)	14(20.9)	Staff
To be directed as to what to do at the bedside	59(88.1)	8(12.0)	Staff
To know which staff members could give what type of information	56(83.6)	11(16.5)	Staff
To feel there is hope	55(82.1)	11(16.4)	Staff
To be assured that the best care possible is being given to the patient	52(77.6)	15(22.4)	Staff
To know exactly what is being done for the patient	58(86.6)	9(13.5)	Staff
To feel accepted by the hospital staff	57(85.0)	10(15.0)	Staff
To be informed about EOL	61(91.0)	6(9.0)	Staff
To be assured it is alright to leave the hospital for a while and be accepted back	60(89.5)	7(10.5)	Staff
To feel it is alright to be emotional	59(88.1)	8(12.0)	Staff
To have explanations given that are understandable	56(83.6)	11(16.4)	Staff
To be told about transfer plans before being executed	56(83.3)	10(16.4)	Staff
To be called when away about changes in the patient's condition	56(83.6	11(16.4)	Staff
To receive information about the patient at least once daily	59(88.0)	8(12.0)	Staff
To see that the hospital personnel care about the patient	64(80.6)	13(19.4)	Staff
To be told specific issues concerning the patients progress	48(71.6)	19(28.4)	Staff

4.3.1 Family related determinants of met and unmet Needs

On family related determinants of the met and unmet family needs, all the top five were on support as illustrated in table 4.7

Table 4.7 The Top five needs related to Family Determinants

Rank	Need	Dimension	Percentage
1	To have someone to help with financial problems	Support	95.5
2	To have friends nearby for support	Support	89.5
3	To have someone be concerned about your wellbeing	Support	88.1
4	To have someone help with family problems	Support	83.6
5	To have another person with you when visiting the CCU	Support	83.5

The top need which was attributed to family determinants was having someone to help with financial problems 64(95.5%) while having friends nearby for support 61(89.5%), was second. To have someone be concerned about your wellbeing 59(88.1%) was third, while to have another person with you when visiting the patient 56(83.6%) of the respondents was fourth. All of the needs were under the dimension of support. This shows how support is highly ranked by the family member with critically ill patients in the CCU KNH.

4.3.2 Institution related determinants of met and unmet family needs

On institutional related determinants of met and unmet family needs, dimensions on comfort, support and receiving information were the most significant as illustrated in the table below.

Table 4 .8 The Top Ten needs related to Institutional Determinants

Rank	Need	Dimension	Percentage
1	To get specific numbers to call the hospital when unable to visit	Support	92.5
2	To talk to the same nurse on a daily basis	Information	91.0
3	To have comfortable furniture in the waiting room	Comfort	89.6
4	To have good food available in the hospital	Comfort	88.3
5	To have a washroom near the waiting room	Comfort	88.1
6	To have the waiting room near the patient	Comfort	82.1
7	To be informed about other health care workers who could help with different issues within the CCU.	Information	81.9
8	To see the patient frequently	Support	73.7
9	To have flexible visiting hours	Support	71.6
10	To have visiting hours start on time	Support	58.3

A high number of respondents 62(92.5%) indicated the need to get specific numbers to call the hospital when unable to visit and also mentioned the need to see the patient frequently 49(73.7%).

The first dimension on ‘comfort” was to have comfortable furniture in the waiting room and was reported by 60(89.6%) of the respondents while the first need on “information” was to talk to the same nurse daily at 61(91.0%)44%). In overall ranking, dimensions on support and comfort contributed to 40% each while information was 20%.

4.3.3 Needs related to Staff determinants

On staff determinants, only two dimensions, information and assurance were the only mentioned with dimension on Assurance taking first position while that on information occupying the second position.

Table 4.9 The Top Ten needs caused by Staff Determinants

Rank	Need	Dimension	Percentage
1	To be assured that the best care possible is being given to the patient	Assurance	81.3
2	To know exactly what is being done for the patient	Information	81.2
3	To have explanations that are understandable	Information	79.7
4	Having questions answered honestly	Information	78.8
5	To be told specific issues concerning the patients progress	Information	78.1
6	To have an orientation of the CCU environment if a first timer		76.9
7	To be told about transfer plans before being executed	Information	70.8
8	To know which staff members could give what type of information	Information	70.8
9	To be directed as to what to do at the bedside	Information	69.7
10	To be called when away about changes in the patient’s condition	Information	69.2

A total of 52(81.3%) respondents each indicated that they would need to be assured that the best care possible is being given to the patient and to know exactly what is being done for the patient. 51 (79.7%) of the respondents pointed out the need to have explanations that are understandable

while 52(78.8%)of the respondents indicated having questions answered honestly. 50 (76.9%) 50(78.1%) of the respondents reported the need to be told specific issues concerning the patients progress and to have an orientation of the CCU environment if a first timer as important.

At the same time, 45(69.2%) respondents indicated that they need to be called when away about changes in the patient’s condition.

4.3.4 Relationship between the unmet needs and demographic characteristics

Table 5.0 shows, in a bivariate analysis, the associations and mean difference to the unmet dimensions according to socio demographic characteristics of the family members of CCU patients. Female had the highest unmet needs as a result of their high numbers. No statistical difference (*P*>0.05) was found between the genders in all the dimensions except rank eight (*to have good food available in the hospital)* with the overall percentage of this unmet need being 88.1% and female likely to be the most affected.

On the mean difference between the unmet needs and age, statistical difference (*P*<0.01) was found in the dimensions (*to have a washroom near the waiting room, to get specific numbers to call at the hospital when unable to visit while away were negative.*

No significance was recorded between the experience of having visited the CCU and the unmet needs.

Table 5.0 Relationship between never unmet need dimensions according to socio demographic characteristics

	Rank									
	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)	6 n (%)	7 n (%)	8 n (%)	9 n (%)	10 n (%)
Variable										
Gender										
Male	24(40.7)	23(41.8)	20(37)	24(41.4)	20(37.7)	22(40)	18(36)	24(48)	17(34.7)	18(38.3)
Female	35(59.3)	32(58.2)	34(63)	34(58.6)	33(62.3)	33(60)	32(64)	26(52)	32(65.3)	29(61.7)
*Fisher's Exact Test(P-value *)*	1.852(0.239)	2.664(0.186)	No statistic	3.052(0.079)	No statistic	9.48(0.264)	No statistic	**8.979(0.002*)**	No statistic	No statistic
Age (Years)	38	38.2	37.8	38.7	39.3	39.9	38.7	38.8	39.1	39
T statistic *(P-value *)*	0.322(0.749)	0.432(0.667)	-0.045(0.964)	1.593(0.116)	**2.25(0.028*)**	**3.63(0.001*)**	1.11(0.273)	-1.42(0.160)	-2.7(0.788)	2.92(0.43)
Experience with CCU										
Yes	51(86.5)	48(87.3)	49(90.7)	50(86.2)	45(84.9)	46(83.6)	42(84)	43(86)	41(83.7)	42(89.4)
No	8(13.5)	7(12.7)	5(9.3)	8(13.8)	8(15.1)	9(16.4)	8(16)	7(17)	8(16.3)	5(10.6)
*Fisher's Exact Test(P-value *)*	1.11(0.285	1.17(0.368)	7.04(0.019)	No statistic	No statistic	0.5(0.676)	No statistic	No statistic	No statistic	No statistic

CHAPTER 5: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 DISCUSSION

5.1.1 Introduction

This chapter discusses the findings of the study according to the determinants of met and unmet needs as per the study objectives. These will be grouped as per the socio demographic characteristics, the met and the unmet needs with their related determinants.

5.1.2 Socio demographic characteristics

From the results of the study, majority of respondents were female. More than half of the admitted patients at the CCU- KNH were male and this could have attributed to this finding. Studies done linked the female gender with a greater risk of PTSD symptoms following an admission of a loved one due to critical illness. (Azoulay et al., 2005; Gries et al ;2010). This therefore makes this group vulnerable to PTSD thus the need to handle them well and give them the proper support needed while having patients in the CCU. This finding could also be interpreted that the female family members prefer to be close to their patients' at all times, Amany *et al* (2017).

The mean number of days spent by the CCU patients was 11.4 days with the highest stay being more than five months. Over three quarters indicated that it was their first experience to be in critical care unit. Being a first timer in a CCU could be overwhelming for the family members, thus a lot of information needs to be given to these family members regarding the CCU to ease their stress and help them cope within the new environment.

Half of the respondents had attained secondary school education and above; meaning that most of them were literate and had a better understanding when it came to conveying information regarding their patients condition and prognosis, while the rest were below the secondary level thus needed simplifications of terms or language for a better understanding of their patients' condition. Pillai *et al,* (2010) reported that there was a relationship between level of education and prevalence of PTSD. Higher prevalence of PTSD symptoms among family members who never completed high school were noted. Most of the respondents in the study had attained secondary education and above.

5.1.3 Met and Unmet Needs and their related determinants

From the study findings, the top ten needs which were perceived as met by the respondents were in the dimension of support, information, proximity and assurance. Most of these needs have institution related determinants and staff related determinants. According to the respondents, out of the five most met needs perceived to have been met were to have visiting hours start on time, to see the patient frequently, to be told specific issues concerning the patients progress, having questions answered honestly and to be told about patients' prognosis.

The top ten needs which were perceived as unmet by the respondents were in the dimension of support, information comfort, assurance and proximity. The majority were associated with staff related determinants and institution related determinants with just a few being associated with family related determinants. They included to have a pastor visit, having someone to help with financial problems, to be told about chaplain services, to get specific numbers to call at the hospital when unable to visit among others.

It's evident that despite having some needs of family members met, there are still some unmet needs which need to be dealt with. The family members of critically ill patients in the CCU KNH show the need for more support and assurance regarding the wellbeing of their patients, they also yearn for more information, comfort and proximity to be with their loved ones.

Most of the family members desired to have a pastors' visit which wasn't possible because of the Covid-19 pandemic restrictions which limited visitors within the CCU KNH. Some of the family members also desired help with financial problems which wasn't forthcoming because of the situation they were in. Critical care is very expensive and if one isn't financially stable can be a challenge.

5.1.3.1 Institutional related determinants

The family needs whose satisfaction were pegged on institutional related determinants were; to have visiting hours start on time, to see the patient frequently and to have flexible visiting hours. Most respondents were glad that CCU KNH adhered strictly to visiting hours starting on time thus meeting their need. Most of the family members were also able to often see their patient's and the timings were friendly, despite not having an open visitation policy at CCU KNH.

Hashim (2012) observed that the two most important needs were open visitation and flexible visitation. Additionally, according to Carlson & Marcia (2015), respondents reported that settings that had an open visitation policy, family members really appreciated the unrestricted access to their CCU patients.

On the other hand, the unmet needs were in the dimensions of information, proximity and comfort were highly ranked by the family members. For instance, 56(84.8 %) indicated the need to have the waiting room near the patient, 53(80.3%) indicated the need to have good food available in the hospital, while 52(79.1%) indicated the need to have a washroom near the waiting room, 49(75.4%) indicated the need to have comfortable furniture in the waiting room, and about 47(70.1%) wanted to have visiting hours start on time were among the top unmet needs which were institution related. These family members literally spent the whole day within the hospital and thus the need for comfort within the CCU. The visiting hours are timed and a patient could have gone for a procedure during the visiting time and arrives late when the visiting time is almost over and there are procedures in the CCU which also take quite some time. This means a family member visiting can miss to see the patient at that particular moment and is forced to wait for the next visitation time. This then has an implication on their comfort needs. Shorofi *et al* (2016) observed that family members had difficulty coping with their stress and emotions and often used maladaptive coping strategies which then necessitated the CCU staff to put measures in place to increase the level of comfort for family members with patients in the CCU to reduce the effects of the stressful CCU environment. The CCU environment should therefore be modified to make the family members more comfortable which will enhance their satisfaction and meeting of their needs.

Additionally, study by Schubart *et al*, (2015) observed that in hospitals in the state of Bahia in Brazil most family members indicated their comfort needs were met, while low level of interest towards the family members and flexible visiting hours as being unmet. Further, during the long hours they spent at the bedside of loved ones in the CCU, family members felt helpless and frustrated and hence the need for comfort in the CCU. Similarly, Bijttebier (2015) adds that many health care professionals have realized that attending to the comfort needs of family members improved patients' outcomes in recovery and wellbeing. He further noted that while health care

professionals are required to support family members during the critical period of a patient's admission, ensuring their wellbeing and ability to relax, feel warm and cared for reduces the stress of both family members and the health care team. He indicated that family members need to sit in comfortable seats while waiting on their patient, accessibility to clean bathrooms and toilets as well is necessary, a place to rest when a family member feels fatigued on attending to their loved one should be present as these are among the factors that ensure the family members comfort in the hospital as they care for their patient in the CCU.

A study by Mallampalli et al (2005) on the unmet needs of family members with critically ill patients, discovered that among the most frequently unmet needs were financial assistance with lodging and boarding for low income family members, more liberal and/or consistent visiting hours among other needs. From the findings of this research majority of the family members indicated the need for assistance with financial support from the institution.

5.1.3.2 Staff related determinants

The met needs with relations to the staff determinants were; to be told specific issues concerning the patients progress, having questions answered honestly, to know exactly what is being done for the patient, to have explanations given that are understandable and to see that the hospital personnel care about the patient. Most of them were on information and assurance dimensions.

A study by Bijttebier (2015) found out that whenever there was an improvement in communication, there was a notable improved satisfaction among patients' family members. Family members were less anxious and more satisfied when educated by the healthcare team. Furthermore, important met communication needs identified included phone calls when away about updates regarding the patients' condition and individual family members being met by the health care team after admission.

In another study, Sklenarova, (2015) found out that communication also involved how regularly information was given and how interactive the process of communication was in addition to how it was transferred and shared to the family members.

Among the staff related needs which were unmet included to be told about chaplain services, to have a pastor visit, to have an orientation of the CCU environment if a first timer, to be informed about EOL issues, to be assured it's alright to leave the hospital for a while and be accepted back. Staff play a key role in the determination of whether family members needs are met or not. The staff working in CCU through their daily interactions influence the perception of the family members a great deal.

Similarly, Hlahatsi *et al.* (2017) reported that the most pressing need of family members of patients in the critical care unit in South Africa was to receive clear, understandable, and honest information about the patient's condition. This was in line with the study findings whereby, top on the unmet needs was on the dimension on information.

A total of 53(79.1%) respondents each indicated that they would need questions answered honestly and be directed as to what to do at the bedside. Approximately two thirds of the respondents pointed out the need to be assured that the best care possible is being given to the patient and the need to know exactly what is being done for their patient while 58(86.6%) were of the opinion that they need to feel there is hope. At the same time, 56(83.3%) respondents indicated that they need to be called when away about changes in the patient's condition and be told about transfer plans before being executed. These findings concur with previous studies done on the same subject. Jahangiri *et al*, (2016) observed that regardless of the family members' educational level, family members' needs regarding the information on the general condition was the greatest commonest need. Similarly, Carlson & Macia (2015) suggested that family members valued information on the modalities of treatment during the admission period especially for patients undergoing long term treatment in the CCU, this is because the number of days spent in the CCU can never be predetermined. From the findings of this research most of the family members would actually need financial support from the institution.

5.1.3.4 Family related determinants

To have a pastor visit and having someone to help with financial problems are in between family related determinants though with a degree of institutional related determinants. Most of the family members desired to have a pastors' visit which wasn't possible because of the Covid-19

pandemic restrictions which limited visitors within the CCU KNH. Some of the family members also desired help with financial problems which wasn't forthcoming because of the situation they were in. Critical care is very expensive and if one isn't financially stable can be a challenge.

5.2 CONCLUSION

The study achieved its broad objective of assessing the determinants of the met and unmet needs of family members of critically ill patients receiving care at CCU-Kenyatta National Hospital (KNH). The study established the main family needs which were met. These included; to have visiting hours start on time, to see the patient frequently, to be told specific issues concerning the patients progress, having questions answered honestly and to be told about patients' prognosis. These were determined by the family members observing the set times of hospital visitation, staff conveying information on time about the conditions of the patients and frequent updates when the patient's conditions changed. Family conferences were also done to pass information on the prognosis of the patients. This was done on a personal level with regard to their level of education for easy understanding. The institution provided a flat-form whereby the family could come visit whenever need arose or there as an urgency and by ensuring the visitation times started on time.

The study also established the main family needs which were not met. These included to be told about chaplain services, to have a pastor visit, having someone to help with financial problems, to be told about end of life issues in regard to their patients, to have an orientation of the CCU environment if a first timer and to get specific numbers to call at the hospital when unable to visit.

Supporting each other financially should be done by the family majorly and seek institutional support in cases of crisis, the staff should ensure information regarding the CCU and its environment is given to the family members to ease their tension at least a brief orientation of the CCU and explained to what goes on and what is expected of them during their visits, information given should be tailored to suit the needs of the family members and assurance that the best care is being given to their patients. Lastly the institution should try and make the CCU environment more comfortable and relaxing for the family members, it can also let the family members stay at home and be given dedicated numbers to call at any time and get to know about the progress of their patients.

The study findings strongly indicate that there still exist unmet needs of family members with patients in the CCU KNH. Though some of the needs are met, there still some unsatisfaction among the family members. These unmet needs could have persisted because of laxity on the part of the staff when handing family members, or by not knowing which information to convey to the family members.

If proper interventions are designed and properly executed, the needs of family members with patients in the CCU will be addressed. It is concluded that family members with patients in the KNH CCU environment can identify their needs and determinants causing them and thus this can assist the CCU in formulating interventions and protocols to address them.

5.3 RECOMMENDATIONS

The study makes the following recommendations based on the findings of the study

i. The KNH CCU needs to address more on the issues of support and information so as to bridge the gap that has been identified to improve satisfaction of needs of family members with patients in the unit.
ii. The KNH CCU staff should adopt a tool to be used to audit family members' satisfaction in the unit.
iii. KNH CCU to allocate more resources to interventions and protocols to satisfy family members' needs and increase their comfort.
iv. KNH CCU team to address the identified unmet needs as per the findings of this study.
v. Future Research to be carried out on effectiveness of interventions and protocols set by CCU staff on the unmet needs of family members with patients in CCU.

REFERENCES

Amany Lofty Abdel- Aziz et al (2017): *Family needs of Critically Ill Patients Admitted to the Intensive Care Unit, Comparison of Nurses and Family Perception*.

Bailey J., Sabbagh, M., Loiselle, G., Boileau, J. and McVey, L (2010); *Supporting family members in the CCU: A descriptive correlational study of informational support, anxiety, and satisfaction with care*. Intensive and Critical Care Nursing, 26, 114-122.

Bademli, K., & Duman, Z. (2017). Conceptual framework for nurses in the use of the Neuman Systems Model on caregivers of people suffering by schizophrenia. *International Archives of Nursing and Health Care, 3*(3), 1-5.

Bijttebier P (2015). *Needs of relatives of critical care patients: Perceptions of relatives, physicians and nurses,* Critical Care Medicine.

Carlson EB, Palmieri PA, Field N, Dalenberg CJ, Macia KS, Spain DA (2015). *Contributions of risk and protective factors to prediction of posttraumatic psychological disorder following traumatic injury.*

Cooper, R. D. & Schindler, S. P. (2014). *Social Research Methods*. Boston: ... Zikmund, W. G.,

Cox, C.E., Jensen, H.I. The unmet need of information access for family members of CCU patients. *Critical Care Med* **43,** 240–242 (2017). https://doi.org/10.1007/s00134-016-4656-1

Creswell, J. W. (2014). *Research Design Qualitative, Quantitative and Mixed Methods Approaches (4th ed.).* Thousand Oaks, CA Sage

De Beer,J. and Brsiewicz, P.(2016) '*The needs of family members of intensive care unit patients: A grounded theory study'*, Southern African journal of critical care. 10.7196/SAJCC.2016.V32i2.298.

Denise F. Polit, Cheryl Tatano Beck. 2017. Nursing research: generating and assessing evidence for nursing practice — Tenth edition.

Edmonds P, Vivat B, Burman R, Silber E, Higginson IJ. (2007). *Loss and change: experiences of people severely affected by multiple sclerosis*. Palliat Med. 2007; 21:101–107. pmid:17344258

Gaeeni M, Farahani M, Seyedfatemi N & Mohammadi N (2015). *Informational Support to Family Members of Critical Care Unit Patients: The Perspectives of Family members and Nurses*, Canadian Center of Science and Education J.

Giordano A, Cimino V, Campanella A, Morone G, Fusco A, Farinotti M, et al. (2016), *Low quality of life and psychological wellbeing contrast with moderate perceived burden in carers of people with severe multiple sclerosis*. J Neurol Sci. 2016; 366:139–145. pmid:27288793

Hashim F and Hussin (2012), *Family Needs of Patient Admitted to Critical Care Unit in a Public Hospital Social and Behavioral Sciences*.

Institute of Medicine, Committee on Quality of Health Care in America (2001). Crossing *the Quality Chasm: A New Health System for the 21st Century.*Washington, DC: National

Jenkins B, Warren NA. (2012), *Concept analysis: compassion fatigue and effects upon critical care nurses*. Crit Care Nurs Q.;35(4):388-395.

Kothari C. R. (2008). *Research Methodology Methods and Techniques.* Second Revised Edition. New Age International Press Limited, New Delhi, India.

Lee L, Lau L. Immediate needs of adult family members of adult Critical care patients in Hong Kong. J Clin Nurs. 2003;12(4):490-500.

Mallampalli A, Dowling J, Lederer M, Gundupalli K, (2005). *The Unmet needs of critical care family members as perceived by the CCU team*

Molter, N.C and Leske, J.S., 1983. *Critical care family needs inventory (CCFN). University of Wisconsin—Milwaukee, Milwaukee*.

Newman, B.(1995). The neuman systems model (3rd ed.)IN McEwen, Mand Willis ,E.(Ed). Theoretical basis for nursing. USA Lippincott Williams &Wilkins.

Ngui L, (2006). *Determination of family members' needs of patients admitted in the Critical care unit (CCU) and the extent to which these needs are met as perceived by the family members and the CCU nurses at Kenyatta National Hospital, thesis.*

Obringer K, Hilgenberg C, Booker K, (2012). *Needs of adult family members of Critical care unit patients.* Journal of Clinical Nursing.

Omari, F.H, (2009*). Perceived and unmet needs of Adult Jordanian Family members in ICUs.* Journal of Clinical Nursing scholarships.

Orodho, A. & Kombo, D. (2008). *Research Methods*. Nairobi: Kenyatta University Institute of Open Learning.

Scott, P., Thomson, P., Shepherd, A., (2019). Families of patients in ICU: A scoping review of their needs and satisfaction with care. Nurs.Open 6, 698-712

Sheaffer, Heather, (2010). *The Met and Unmet Needs of Family members of Patients in the CCU and Implications for Social Work Practice.*

Schubart JR, Wojnar M, Dillard JP, Meczkowski E, Kanaskie ML, et al. (2015) *CCU family communication and health care professionals: A qualitative analysis of perspectives*. Critical Care Nurse.

Sekaran, U. (2013). *Research Methods for Sciences - A Skill Building Approach*, 4th ed., John Wiley & Sons Inc., New York.

Shorofi S, Jannati Y, Moghaddam H and Yazdani-Charati J (2016). *Psychosocial needs of family members of Critical care patients: Perceptions of nurses and family members*, Niger Med J.

Sklenarova H, Haun MW, Friederich HC, et al (2015). *Psychometric evaluation of the German Version of the Supportive Care Needs Survey for Partners and Caregivers of cancer patients*. Eur J Cancer Care.

Yamane, T. (1967). *Statistics, an Introductory Analysis, 2nd Ed*., New York: Harper and Row.

Zikmund, W. G., Babin, B. J., Carr, J.C. & Griffin, M. (2010). Research Methods, 8th Ed.

APPENDIXES

APPENDIX A: Consent Form

Study Title: **Assessing the determinants of met and unmet needs of family members with critically ill patients at Critical Care Unit- KNH**

Study site: Kenyatta National Hospital, Main CCU.

Dear Participant,

My name is Valentine J. Ngeny a MSc student at the University of Nairobi. The purpose of this consent form is to give you the information you need to know in order to decide whether or not you would like to take part in the study I am carrying out in this unit. Please read carefully and be free to ask me to explain anything that you do not understand.

Purpose and benefits of the study

I'm carrying out a study to assess the determinants of met and unmet needs of family members with critically ill patients at the CCU, KNH. This will inform KNH management to formulate policies and intervention programs to cater for the needs of family members with patients in the CCUs.

Procedure

If you are willing to participate in the study, I will interview you based on the questions in the questionnaire and will then fill your answer. You are free not to answer any question that you may feel uncomfortable with. If you need any assistance to answer the questionnaire, I will be available to clarify any issue. Please do not hesitate to contact me or KNH/UON Ethics and Research Committee on the telephone numbers provided below for further clarification. No invasive procedure will be employed. The participants will only be required to answer interview questions in the questionnaire.

Benefits of taking part in the study

No direct benefit for taking part in the study. The information we will gather from this exercise will help us in understanding to what extent are the met and unmet needs of families of patients admitted in the in CCU, KNH and to identify any gaps so as to develop interventions or strategies

of solving the gaps. This will go a long way in improving quality of care to the patients admitted in the unit and their families.

Confidentiality

All questionnaires are to be completed anonymously. No personal identification information will be collected on the questionnaire.

Risk stress and discomfort

The questionnaire which the researcher will be required to fill will not have your name or personal number, which can identify you. You will receive no money for participating in this exercise. The only discomfort is when you will be taking about 10 minutes to complete the questionnaire.

In case of any questions, you can contact:

Researcher- Valentine Ngeny, P.O BOX 2077-00200, Tel. number 0722800720

Supervisors

Dr. Eunice Omondi, P.O BOX 19676-00202, Tel: 0722728123

Prof. Anne Karani, P.O BOX 19676-00202 Tel 0721850910

The Secretariat, KNH/UON Ethical and Research Committee, P.O BOX 20723-00202, Tel 020 2726300-9 Ext. 44355

<u>Participant's statement/ consent certificate</u>

I understand that my participation is voluntary and that I may refuse to participate or withdraw my consent and stop taking part at any time without any penalty.

I hereby freely consent to take part in the study.

Participant's signature……………… Date…………………….

Research Assistant's signature…………… Date……………………

APPENDIX B: Questionnaire

Instructions

- Do not write your name anywhere on this form.
- Any information you give will be treated with utmost confidence
- Please note that the questions are purely meant for academic purposes only.
- Please tick the relevant response

PART 1: SOCIO DEMOGRAPHIC

1. Gender

   ……………………

2. What is your age in years?

   …………………….

3. Relationship to Patient.

   ………………………

4. How many days has the patient been in CCU:

   …………………………………

5. Is this first experience in CCU

   YES ( )

   NO ( )

6. Education Level

   ……………………………………….

7. What is your monthly income in Ksh

   ……………………………………..

8. What is your religion

   ………………………………….

PART TWO: STATUS OF MET AND UNMET NEEDS

Please tick ( ) against the appropriate column

	Needs	Never Met (1)	Sometimes Met (2)	Usually Met (3)	Always met (4)
1.	Having friends nearby for support				
2.	Having someone to help with financial problems				
3.	To be informed about other people that could help with issues within the CCU				
4.	To be told about someone to help with family problems				
5	To have good food available in the hospital				
6	To have comfortable furniture in the waiting room				
7	To have a pastor visit				
8	To have a washroom near the waiting room				

9	To have visiting hours start on time				
10	To be told about chaplain services				
11	To see the patient frequently				
12	To have the waiting room near the patient				
13	To have flexible visiting hours				
14	To be told about the patients' prognosis				
15	To have an orientation of the CCU environment if a first timer.				
16	To be in communication with the doctor daily.				
17	To get specific numbers to call at the hospital when unable to visit				
18	Having questions answered honestly				
19	To be directed as to what to do at the bedside				
20	To know which staff members could give				

	what type of information				
21	To feel there is hope				
22	To be assured that the best care possible is being given to the patient				
23	To know exactly what is being done for the patient				
24	To feel accepted by the hospital staff				
25	To be informed about the EOL				
26	To have another person with you when visiting the CCU				
27	To have someone be concerned about your wellbeing				
28	To be assured it is alright to leave the hospital for a while and be accepted back.				
29	To talk to the same nurse on a daily basis				

30	To feel it is alright to be emotional				
31	To have explanations given that are understandable				
32	To be told about transfer plans before being executed.				
33	To be called when away about changes in the patient's condition				
34	To receive information about the patient at least once daily.				
35	To see that the hospital personnel care about the patient				
36	To be told specific issues concerning the patient's progress				

PART THREE: DETERMINANTS OF MET AND UNMET NEEDS

Please tick ( ) against the appropriate determinant

	Needs	Determinants			
		Family (1)	Institution (2)	Staff (3)	Other (4)
1	Having friends nearby for support				
2	Having someone to help with financial problems				
3	To be informed about other people that could help with issues within the CCU				
4	To be told about someone to help with family problems				
5	To have good food available in the hospital				
6	To have comfortable furniture in the waiting room				
7	To have a pastor visit				
8	To have a washroom near the waiting room				
9	To have visiting hours start on time				

10	To be told about chaplain services				
11	To see the patient frequently				
12	To have the waiting room near the patient				
13	To have flexible visiting hours				
14	To be told about the patients' prognosis				
15	To have an orientation of the CCU environment if a first timer.				
16	To be in communication with the doctor daily.				
17	To get specific numbers to call at the hospital when unable to visit				
18	Having questions answered honestly				
19	To be directed as to what to do at the bedside				
20	To know which staff members could give what type of information				

21	To feel there is hope				
22	To be assured that the best care possible is being given to the patient				
23	To know exactly what is being done for the patient				
24	To feel accepted by the hospital staff				
25	To be informed about the EOL				
26	To have another person with you when visiting the critical care unit				
27	To have someone be concerned about your wellbeing				
28	To be assured it is alright to leave the hospital for a while and be accepted back.				
29	To talk to the same nurse on a daily basis				
30	To feel it is alright to be emotional				
31	To have explanations given that are understandable				

32	To be told about transfer plans before being executed.				
33	To be called when away about changes in the patient's condition				
34	To receive information about the patient at least once daily.				
35	To see that the hospital personnel care about the patient				
36	To be told specific issues concerning the patient's progress				

APPENDIX C: Approval from Ethics Committee

UNIVERSITY OF NAIROBI
COLLEGE 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/198

3rd July 2020

Valentine Ngeny
Reg. No. H56/11277/2018
School of Nursing Sciences
College of Health Sciences
University of Nairobi

Dear Valentine,

RESEARCH PROPOSAL- ASSESSING THE DETERMINANTS OF MET AND UNMET NEEDS OF FAMILY MEMBERS WITH CRITICALLY ILL PATIENTS IN THE CLINICAL CARE UNIT, KENYATTA NATIONAL HOSPITAL (P102/02/2020)

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 3rd July 2020 – 2nd July 2021.

This approval is subject to compliance with the following requirements:

a. Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
b. All changes (amendments, deviations, violations etc.) are submitted for review and approval by KNH-UoN ERC before implementation.
c. 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.
d. 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.
e. 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*).
f. 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

APPENDIX D: Letter from KNH giving Authority to Conduct Study

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
   VALENTINE JEPYEGON NGENY
2. Email address: vngeny@yahoo.com Tel No. 0722800720
3. Contact person (if different from PI)
4. Email address: Tel No.
5. Study Title
   ASSESSING THE DETERMINANTS OF MET AND UNMET NEEDS OF FAMILY MEMBERS WITH CRITICALLY ILL PATIENTS IN THE CRITICAL CARE UNIT, KENYATTA NATIONAL HOSPITAL (P102/02/2020).
6. Department where the study will be conducted ANAESTHESIA AND THEATRES.
   (Please attach copy of Abstract)
7. Endorsed by Research Coordinator of the KNH Department where the study will be conducted.
   Name: Signature Date
8. Endorsed by KNH Head of Department where study will be conducted.
   Name: Dr K. Momanyi Signature [signature] Date 23/07/2020
9. KNH UoN Ethics Research Committee approved study number P102/02/2020.
   (Please attach copy of ERC approval)
10. I Valentine Jepyegon Ngeny. commit to submit a report of my study findings to the Department where the study will be conducted and to the Department of Research and Programs.
    Signature [signature] Date 22ND JULY, 2020
11. Study Registration number (Dept/Number/Year) CCU / 129 / 2020
    (To be completed by Research and Programs Department)
12. Research and Program Stamp [KENYATTA NATIONAL HOSPITAL 24 JUL 2020]

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

APPENDIX E: Similarity Index Report

Turnitin Originality Report

- Processed on: 01-Dec-2020 08:24 EAT
- ID: 1461110832
- Word Count: 16769
- Submitted: 1

DETERMINANTS OF MET AND UNMET NEEDS OF FAMILY MEMBERS WITH CRITICALLY ILL PATIENTS IN THE CRITICAL CARE UNIT - KENYATTA NATIONAL HOSPITAL By Valentine Ngeny

Similarity Index

10%

Similarity by Source

Internet Sources: 12%

Publications: 8%

Student Papers: N/A

4% match (Internet from 21-Jul-2020)
https://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1353&context=theses&httpsredir=1&referer=

1% match (Internet from 09-Mar-2014)
http://content.lib.utah.edu/utils/getfile/collection/etd1/id/945/filename/321.pdf

1% match (Internet from 15-Mar-2019)
http://article.nursingscience.net/pdf/10.11648.j.ajns.20170604.18.pdf

1% match (publications)
Kátia Santana Freitas, Miako Kimura, Karine Azevedo São Leão Ferreira. "Family members' needs at intensive care units: comparative analysis between a public and a private hospital", Revista Latino-Americana de Enfermagem, 2007

1% match (Internet from 24-Nov-2017)
https://journals.rcni.com/nursing-standard/meeting-the-needs-of-patients-families-in-intensive-care-units-ns.28.43.37.e8333

1% match (Internet from 25-Jul-2017)
http://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?article=1535&context=etd

1% match (Internet from 16-Jul-2020)
https://yorkspace.library.yorku.ca/xmlui/bitstream/handle/10315/32141/Briscoe_Kadeen_N_2015_MScN.pdf?sequence=2

1% match (Internet from 24-Aug-2020)
https://www.dovepress.com/the-needs-of-family-members-of-patients-admitted-to-the-intensive-care-peer-reviewed-fulltext-article-PPA

1% match (Internet from 22-Jul-2020)
http://erepository.uonbi.ac.ke/bitstream/handle/11295/95870/Kemboi-Ngotie_Evaluation%20of%20evidence%20based%20episiotomy%20practice.pdf;sequence=3

SCHOOL OF NURSING SCIENCES
DIRECTOR
01 DEC 2020
UNIVERSITY OF NAIROBI
P.O. Box 30197, NAIROBI

1/12/20

Dr Eunice Omondi

1/12/2020