NURSES' KNOWLEDGE, ATTITUDE AND PRACTICE IN END OF LIFE CARE AT TERTIARY HOSPITAL DAR-ES-SALAAM TANZANIA

Marco James Marco, BScN

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Nurses' knowledge, attitude and practice of end of life care at tertiary teaching hospital, Dar es Salaam, Tanzania

By

Marco James Marco

A Dissertation Submitted in (Partial) Fulfilment of the Requirements for the Master Degree of Science in Nursing Critical Care and Trauma of Muhimbili University of Health and Allied Sciences.

October, 2021

CERTIFICATION

The undersigned certify he has read and hereby recommend for acceptance of dissertation entitled '**Nurses' knowledge, attitude and practice in end of life care at Muhimbili national hospital, Dar-es-salaam Tanzania''** in partial fulfilment of the requirements for the degree award of masters of Science in nursing critical Care and Trauma of Muhimbili University of Health and Allied Sciences.

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Dr. Dickson A Mkoka

(Supervisor)

____

Date

DECLARATION

I, **Marco James Marco**, declare that this dissertation report is my own original work. It is being submitted for Master's degree of Science in Nursing critical care and trauma at MUHAS. It has not been presented and will not be presented to any other university for a similar or any other degree award.

Signature ………………………………………………Date ……………………

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ABSTRACT

Background: It is obvious that human life has an end either by sudden death, diseases, trauma or aging. At the end of life, a dying patient and families need a holistic nursing care to reduce suffering, maintain quality of life and ensure death with dignity. This require comprehensive nursing knowledge related to a dying patient. Experience in clinical settings shows that dying patient and their families receive poor end of life care from nurses as they die without information about their diagnosis, prognosis and they have poor involvement in the plan of care.

Aim of the study: To assess nurses' knowledge, Attitude and practices in end of life at Muhimbili national hospital (MNH).

Methods: A cross-sectional descriptive study was conducted among nurses at Muhimbili national hospital. A self-administered questionnaire with knowledge and attitude parts adapted and modified from Palliative care quiz for nurses (PCQN) and Frommelt attitude for caring dying (FATCOD) respectively together with practice part developed after various literature review. These tools were used to grasp information from nurses working at MNH relating to end of life care. A sample of 308 nurses were involved in the study. Simple random sampling method was used to obtain participants during data collection. The collected data was analyzed using SPSS version 23 and was presented using descriptive statistics.

Results: The total number of participants were 308 nurses working at Muhimbili national hospital with a response rate of 89.0%. High number of participants 30.7% had 30-35 years of age, 40.9% have 5-10years'of working experience in nursing and 54.9% were female. Majority 68.6% have no training relating to end of life care. More than half 55.6% had poor knowledge of end of life care. Majority 62.5% have poor attitude about end of life care while 72.7% have poor practice about end of life care. Education level with (AOR=2.581, 95%CI: 1.268-5.255, P-value=0.009) has statistically significant association with nurses' knowledge on dying patient's rights in end of life stage. Nurses' attitude and practice in end of life care has no statistical significance with socio-demographic data of the study participants.

Conclusion: From this study, nurses have poor knowledge, poor attitude and poor practice regarding end of life care. This could have been subjected the dying patient and their families into suffering and death without dignity.

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LIST OF ABBREVIATIONS

ACP-Advanced Care Plan

AOR-Adjusted Odd Ratio

DNR-Do Not Resuscitate

CPR-Cardio Pulmonary Resuscitation

EoLC-End of Life Care

EoLD-End of Life Care Decision

EoLS-End of Life Stage

FATCOD- Frommelt Attitude toward Care of the Dying

GD-Good Death

IAHPC-International Association of Hospice Palliative Care

ICU-Intensive Care Unit

IRB –Institution Review Board

MNH –Muhimbili National Hospital

MoHCDGEC-Ministry of Health Community Development Gender, Elderly and Children

MUHAS-Muhimbili University of Health and Allied Sciences

PCQN-Palliative Care Quiz for Nurses

WHO-World Health Organization

TNMC-Tanzania nurses and midwives' council

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DEFINITION OF TERMS

End of life care: Refers to all aspects of care which is relating to dying, death and bereavement which are provided at the end of life aimed to prevent or relieve suffering through management of pain or other symptoms and provision of psychological, social, spiritual and physical support.(Abate *et al.*, 2019)

Good death: Refers to the death that is free from avoidable distress and suffering, for patients, family, and caregivers; in general accord with the patients' and families' wishes; and reasonably consistent with clinical, cultural, and ethical standards.

Life trajectory: Refers to the particular path the illness takes toward death and the speed with which it progresses (Field & Cassell, 1997).

Nurse: A person who has successfully completed a prescribed general basic nursing education programme and is licensed by the TNMC to practice nursing as enrolled or registered nurse (TNMC 2014).

CHAPTER ONE

1.0 Background of the study

According to (Cole, 2001),death is a topic that makes people uncomfortable to discuss. People do not like to talk about, plan for and acknowledge. From the study by (Gagnon, 2014), nurses' dedication to patient care is motivated by a desire to bring the life of the patient to a good death. This is possible when patients and families are included in decision making, kept informed, have accepted that death was impending, and are in an appropriate environment.

According to the (World Palliative Care Alliance, 2014), end of life care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness. At the end of life period stress and fear are common, clear communication is very important. Family satisfaction with communication and shared decision making is influenced by trust in providers and is directly related to the feeling of patient and family members after critical illness. The quality of nurses' communication and shared decision making with patients and family can influence dying patient and families experience at the EoL. In current study (Hirshberg *et al.*, 2020), an understanding of patient and family experiences in end of life are shaped by cultural beliefs, medical knowledge and the patient and families level of understanding. Quality communication with nurses is significantly important to improve the patient and families end of life satisfaction. According to (Choi *et al.*, 2012), nurses have limited experience and little educational exposure regarding end of life care. Therefore, nurses' knowledge and skill in decision making and communication with patients and family members in end of life stage might be inadequate.

In the current study (Abu-odah, Molassiotis and Liu, 2020),End of life care is the holistic care approaches of providing a specialized medical and nursing care for patients with critical illnesses to make their lives meaningful and productive. From the study by (Papadimos *et al.*, 2011) and (Karbasi *et al.*, 2018), End of life care focus on the treatment of physical symptoms, relief of socio-economic, spiritual and emotional suffering, helping patients with decision making, fulfilling the dying patient wishes for care and teaching families and caregivers how to

act around their loved ones. However, at MNH the state of end of life care services is not known and has been inadequately documented.

At the end of life, a patient faces the reflection of serious illness (Trajectories) that provides a framework for nursing care patients and families experiencing any one of them effectively whatever path that takes. (Papadimos *et al.*, 2011), the understanding of the life trajectories offers insights into the lived experience of people who has end of life care need. The end of life trajectories need high level of knowledge and competence to recognize and intervene accurately. It is significantly important for nurses to understand whether she/he is dealing with a dying patient for accurate decision making and advanced care plan (ACP). In the study by (I *et al.*, 2018), one of the difficulties faced by nurses working in wards with dying patients is the identification of which patients have end of life care needs. (Truog *et al.*, 2008) highlighted that end of life care become the area of expertise among nurses and demand same high level of knowledge and competence as another area of nursing practice. The value of nurse at the end of life care is unquestionable as they provide a holistic care to a dying patients. (Kassa et al., 2014) recommended that there is a need to support and educate nurses for the provision of high quality end of life care. (Ontario, 2014) said that during the end of life period, patients with advanced illness that will not stabilize and from which they will not recover and will eventually die, multiple nursing care are required to support a dying patients and their families. According to (Myatra *et al.*, 2014), dying may be peaceful event or great agony when it is inadequately enriched by life support from nurses especially and family caregivers. Interventions dependent on the level of care required by each patient and their family because each patient is unique. Jennifer Robinson on August 19, 2019 emphasized that the goal of the end of life care is to help people who are dying have peace, comfort and improve the quality of life during the illness and ensure death with dignity. Therefore, effective end of life care prepares the patient and families with full information about the diagnosis, stages and treatment options of the diseases and enable a dying patient and families to involve in decision making as well as advanced care plan. Effective involvement of dying patient and their families in the advanced care plan may reduce hospital stay, unnecessary costs, workload to nurses and caregivers and preserve supplies. Again end of life care enable families who lost their loved one to cope with the situation and adapt to live

under the absence of the close family member who lost the life. Unnecessary conflicts among clinicians and families who lost their loved one may be reduced as they have participated fully throughout the process and it may increase nurse's job satisfaction. Little was known about nurses' knowledge, attitude and practice in end of life care at MNH and the role and position of a nurse in end of life care not well known. Thus there was a need for evaluation of nurse's knowledge, attitude and practice in end of life care at Muhimbili national hospital.

1.2 Problem statement

Tanzania nursing education curriculum lack the end of life care competence, this may be related to the nurse's knowledge, attitude and practice in end of life stage and might have been affected the provision of quality nursing care in end of life stage to a dying patient and families leading to unnecessary suffering, costs and death without dignity. According to (Lewis *et al.*, 2018), the lack of end of life care in nursing education curricula is in urgent need in order to meet the goals of universal health coverage and reflect the special challenges faced by nurses when providing end of life care to a dying patient and families.

According to WHO 2020, globally, an estimated 40 million people are in need of end of life care each year; 78% of the people live in low and middle-income countries. Only about 14% of people who need end of life care currently receive it. To address the problem WHO has recommended that national health systems are responsible for including end of life care in the continuum of care, improve health system policies that integrate and strengthening end of life care services into the structure and financing of national health care systems at all levels of care and expanding training of existing health professionals and implementing end of life care into the core curricula of all new health professionals.

At Muhimbili national hospital, the roles and position of a nurse when caring for dying patient is poorly documented may be due to lack of knowledge related to EoLC. Therefore, nurse's knowledge, attitude and the current practices at MNH need to be evaluated. Thus, the study will address the extent of the problem at MNH, aid the development of policy and guidelines to improve the quality of care at the end of life within ethical context and encourage more researches in this important aspect of nursing care.

1.3 Operational definitions

Knowledge: Refers to information and understanding about a subject which a person has acquired through experience or education. ((dictionary.com, 2016).

It is referred to nurse's understanding and awareness about the end of life care in this study.

Attitude: Refers to the way of thinking or feeling about something. (oxforddictionaries.com 2016),

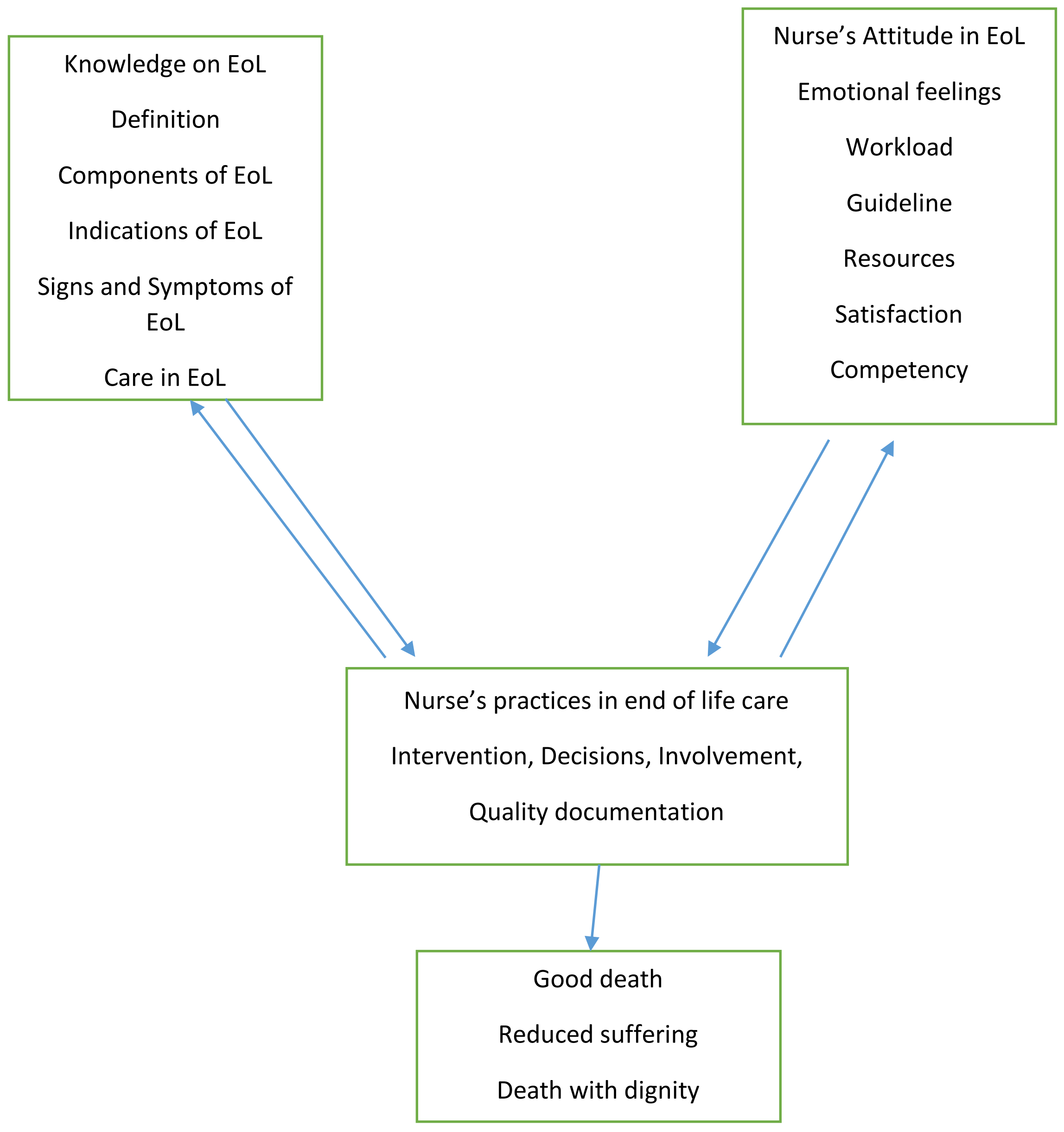
In this study, it referred to nurse's feelings or way of thinking towards end of life care

Practice: Refers to the actions in addressing something, in this study it referred to nurses' actions in end of life care

1.4 Conceptual framework

This study was guided by the developed conceptual framework describing the variables under study. These variables are the vital elements containing the parameters that indicate the status of nurses' knowledge, attitude and practice in end of life care. The variables includes nurses' knowledge in end of life care (EoLC) in terms of definition, components of EoLC team, indications for EoLC and signs and symptoms of end of life stage. The model also described the nurses' attitude about EoLC in terms of emotional feeling, workload, satisfaction, competency and guideline. For the effective end of life care nurses' must have good practice in terms of intervention, decision, involvement and quality documentation.

Figure 1: Developed conceptual framework for nurses' knowledge, attitude and practice in EoLC.



1.5 Rationale of the study

The study was designed to describe the nurses' knowledge, attitude and practice in end of life care. The findings obtained will contribute to the improvement of nurses' knowledge, attitude and practice in end of life care. This will ensure the dying patient and families receive quality nursing care in end of life stage. Again, the findings will serve as baseline information for the status of nurses' knowledge, attitude and practice in end of life care at Muhimbili national hospital. Finally, the findings will determine the area requiring further exploration regarding the end of life care in Tanzania.

1.6 Research questions

1.6.1.1General research question

What are the nurse's knowledge, attitude and practice in end of life care during the care of a dying patient?

1.6.2 Specific research questions

What is the nurse's knowledge in the end of life care at tertiary hospital in dar-es-salaam?

What is the nurse's attitude in end of life care at tertiary hospital in dar-es-salaam?

What are the current nurse's practice in end of life care at tertiary hospital in dar-es-salaam?

1.7 Objectives

1.7.1 General objectives

To assess nurse's knowledge, attitude and practices in end of life care in tertiary hospital Dar-es-salaam Tanzania.

1.7.2 Specific objectives

1. To determine nurse's knowledge regarding end of life care in tertiary hospital Dar-es-salaam Tanzania

2. To determine nurse's attitude regarding end of life care in tertiary hospital Dar-es-salaam Tanzania

3. To determine the current nurse's practices of end of life care in tertiary hospital Dar-es-salaam Tanzania.

CHAPTER TWO

2.0 Literature review

2.1 Nurses Knowledge in end of life care

Recognition of death trajectories is the central barrier in ensuring quality end of life care among nurses, this may be related to the quality of care at end of life and may have been subjected dying patient in pain, suffering and death without dignity. Although the need for additional end of life care education was identified in several studies, mostly in terms of developing the necessary knowledge and proper symptom management. According to a comprehensive literature review from the electronic data base of the medical –surgical nurses providing end of life care by (Gagnon, 2014), provision of end of life care is influenced by nurses' clinical experiences. From the study on knowledge, attitude and associated factors towards end of life care among nurses by (Abate *et al.*, 2019),nurses' knowledge in end of life care found to be poor 39.0%, this was due to lack of education both formal and informal as well as training and workshops related to end of life care.

This underdeveloped educational foundation may lead to difficulties in defining the role of nurses in the end of life stage among nurses. From the study on nursing education on caring for the dying by (Choi *et al.*, 2012),nurses do not receive extensive training in nursing school to care for dying patients though they provide end of life care in their careers. A comprehensive education program should be developed to increase end of life care competencies for nurses to strengthen their knowledge on philosophical aspects of EoLC, principles of end of life care, the dying process and bereavement process. From the study on the assessment of nurse's knowledge, attitude and associated factors towards palliative care among nurses by (Alemnesh, 2014), nurse must have good knowledge, attitude and practice about end of life care to provide quality care. It is important to assess nurses' knowledge, attitude and practice in end of life care to help them handle challenges associated with end of life experienced by the dying and their families.

In 1969, Dr. Elisabeth Kuebler Ross wrote a book entitled On Death and Dying, in which she outlined a conceptual framework for how individuals cope with the knowledge that they are dying. She proposed five stages of this process that included denial, anger, bargaining,

depression, and acceptance. However, not all people will go through each stage in sequence, some may skip some stages altogether. In the study on a psychological perspective on life span development by (Gregory, 2019),It is important for nurses to have an understanding about these stages in order to be able to provide proper supportive care to a dying patient and their families at the end of life. Effective end of life care requires an understanding and acceptance by the patient and family that death is inevitable and is focused not on life prolongation but on the quality of life to death through comfort measures that include physical, mental, emotional, spiritual needs. From the end of life care by (Friedman and Helm, 2016),appropriate pain control, measures to ease breathing difficulties, paying attention to skin irritations, and attending to problems with digestion like constipation and lack of appetite meet the main physical comfort needs.

Nurses are frequently in position to provide guidance for patients and families confronting difficult decisions and adapting to painful realities and are obligated to provide care to the patient till he/she died, this need knowledge regarding end of life. Again, from a mixed studies review of registered nurse provision of end of life care to hospitalized adults by(Karbasi *et al.*, 2018), nurses have aligned their end of life care practice with their profession expectations playing as protecting providers, advocate and reflexive practitioners by providing compassionate and dignified care to dying. This makes a dying patient not feel alone and neglected because of being surrounded by nurses all the time. Also supporting families and allowing families' unlimited access their loved one and including them as active participants in care, this is possible because nurses are the one who control the wards. (American Nurses Association, 2016), nurses are often ideally positioned to contribute to conversations about end of life care and decisions, including maintaining a focus on patients' preferences, and to establish mechanisms to respect the patient's autonomy. Nurses need to be sufficient with adequate knowledge in communication skills, assessment skills, decision making and problem solving skills and documentation skills to provide compassionate, sensitive and legal end of life care. Therefore, the position and roles of the nurse at the end of life care are supreme, the nurse's knowledge in end of life care need to be determined for the quality end of life care at Muhimbili national hospital.

2.2. Attitude of nurses in end of life care

End of life care can be provided in many areas in the hospital. The provision of this kind of care by nurses at the end of life may be influenced by many factors including the nurse's attitudes. From the study on attitude of registered nurses about the end of life care by (Blaževičienė, Laurs and Newland, 2020) and (Bjarnason 2010),nurses play a central role in end of life care, their approach to a dying patient become an important element of quality end of life care. The attitude of nurses towards death and the nurse's readiness to provide end of life care might influence the quality of care they provide to a dying patient and their families. Again nurse's attitude towards death and dying depend on culture, society, values orientation, religion and an individual's perception of death and dying. In our setting people do not like to discuss about impending death even plan for it despite the fact that death is there for all of us, this might have been influencing the nurses' attitude in providing the care to a dying patient. Nurse's attitude in end of life care may be reflected by the quality of their communication to a dying and families and the level of understanding related to the death and dying. From the Frommelt attitude towards care for dying scale by (Mastroianni *et al.*, 2015), Nurses' attitudes toward caring for dying patients have an impact on the quality of the care provided and the education can improve their knowledge and attitudes toward end of life care. From the study on 'we never speak about death" healthcare professional view on end of life care for inpatient in Tanzania by(Lewis *et al.*, 2018),nurses spoke frankly that they don't have good attitude when caring for dying patient and the don't care if a patient is dying. However, the reasons for the poor attitude of nurses from this study was not well established. Therefore, it is important to explore nurses' attitudes toward caring for dying patients as it might have the influence on the quality of nursing care to a dying patient and the families.

2.3. Nurse's practices in end of life care

Dying is an inevitable life event in the life continuum and most of patients in the wards dies within the nursing hands. As a patient approaching death faces many challenges that may need nursing intervention to bring a good death. According to study on guide to good nursing practice in end of life care by (Professional Development Committee of the Nursing Council of Hong Kong, 2006), at the end of life period, dying patients and their families suffer from the physical, physiological, psychological, socio-economic and spiritual matters. Good death may be determined by the nurse's practices in fixing the needs leading to reduced suffering of a dying patient and the families. Nursing practice in end of life care may include pain management, counseling of dying and the families, giving appropriate information related to the stage and ensuring that the dying patient wishes are fulfilled. From the study on current end of life care needs and care practices in acute hospitals by (Thurston, Wilson and Hewitt, 2011),only 8.8% of dying patient received cardio-pulmonary resuscitatin,89.0% had oxygen therapy and intravenous fluid in use at the time of death, however, 7.0% had care and management withdrawn before death and 87.5% had do not resuscitate order before death. According to the study by (Sy, MJ Tan and Radha Krishna, 2015), there is little consistency in the management of end of life issues currently and it is critical to recognize that the dynamics of each case vary extensively depending on the patient, family, prognosis and medical care teams. This may be due to lack of guideline and protocol regarding end of life care. Understanding of current nurse's end of life care practices is significantly needed for the quality end of life care and improvement purposes.

CHAPTER THREE

3.0 Methodology

3.1 Study design

A descriptive cross-section study with quantitative approach was carried out to determine the nurse's knowledge, attitude and practices at the end of life moments at Muhimbili national hospital. The design preferred as it can help to describe the state of nurses' knowledge, attitude and practice simultaneously in a same place. The design was selected to allow collection of information required for this study in a short time period.

3.2 Study area

The study was done at Muhimbili national hospital which is National Referral Hospital and University Teaching Hospital located in upanga west Malik road Dar-e-salaam city Tanzania. Has 1,500 bed facility, attending 1,000 to 1,200 outpatient's week, admitting 1,000 to 1,200 inpatients per week. It has 2700 employees, of which 300 are doctors and specialists, 900 registered & enrolled nurses and the rest are supporting operations employees. The study area was selected because it has wards with admitted patients. The wards included in Mwaisela, Kibasila, Sewahaji, Maternity and Pediatric blocks.

3.3 Study population

The study population was the registered nurses working at Muhimbili National Hospital providing direct care to the patient admitted in the ward

3.4 Sample size

A 308 registered nurses working at the Muhimbili national hospital was obtained from a fixed population of 900 nurses at MNH. The sample size required to meet the demand of the study was calculated by using the Yamane 1967:886 as follows

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = Minimum required Sample size. N = the population Size (900 nurses).

And e = margin of error estimated at 5% (0.05).

$$n = \frac{N}{}$$

$1+N(e)^2 \quad = 900/1+900(0.05)^2 \quad = 277$nurses.

Therefore, the minimum sample of nurses to participate in the study will be 227 nurses.

Thus: This sample size will be adjusted for a 10% non-response rate:

$$n_{adjusted} = \frac{\text{Sample required (n)}}{\text{Response rate (R)-Non-response rate}}$$

Since R=100%-, Non-response (r), Then, assumed a non-response rate of 10%

Thus,

$$n = \frac{277 \times 100\%}{100\%-10\%} = 307.77777=308$$

Therefore the adjusted numbers of nurses required in the study will be 308 nurses.

3.5 Sampling technique

The probability sampling method was used to give the equal chance for all registered nurses working at Muhimbili national hospital who meet the inclusion criteria to be selected and involve in the study. The simple random sampling method was used in which a sampling frame was made from a list of registered nurses present in the word during data collection time. Random numbers were developed in which participants were asked to pick one of the number and those whose numbers were within the required range were selected to be part of the study.

3.6 Inclusion criteria

All registered nurses providing direct care to the patients in the ward who are available during the period of data collection procedure. There were no anticipated features of qualified participants to spoil the results and conclusion of the study, no exclusion criteria established.

3.7 Investigation tools

A self-administered questionnaire English version was used for data collection. The knowledge questions were adopted from the Palliative Care Quiz for Nursing (PCQN) which was also modified to accommodate the Tanzania nurses. The attitude scale was adopted from Frommelt Attitude toward Care of the Dying (FATCOD) and modified fit the Tanzania context as well at

MNH. The practice questions were developed from various similar studies so as to determine the nurse's practice in end of life care. The data collection tool has four sections.

Section one: A socio demographic variables include (age, gender, level of education, and work experience in nursing field.

Section two: Consists the knowledge questions with 27 items score on 5 point Likert scale (1.Strongly disagree. 2. Disagree. 3. Uncertain 4.Agree and 5.Strongly agree.)

Section three: This consists 16 attitudes questions with 5 point Likert scale, (1.Strongly Disagree), 2. (Disagree), 3. (Uncertain). 4. (Agree) and 5. (Strongly Agree).

Range was calculated so as to properly analyze the Likert scale, the score for each item was calculated and the correctly scored item was identified.

Section four: This section consists of 12 practice questions developed by researcher from guidelines and various literatures related to end of life care practice. It consists 2 points scale, 1.Yes, 2. No

Study considerations

Good Knowledge: Participants score the mean and above the mean of the knowledge questions

Poor Knowledge: Participants score below the mean score of the knowledge questions

Good Attitude: Participants score the mean and above the mean score of the attitude questions.

Poor Attitude: Participants score below the mean score of the attitude questions

Yes: Good practice,

No: Poor practice

3.8 Data collection methods

Participants was consulted, the purpose of the study was explained and the questionnaire was distributed by principal investigator (PI) in collaboration with research assistant. Self-administered questionnaire was filled by the participants in their convenient time. Approximately 20 minutes was used for completion of each questionnaire. A completely filled questionnaires was collected daily to observe the quality of responses and find out the missed information for improvement in the wards. It was voluntary participation and no harm was

expected in this study. Participant names and signature were used for legal and protection purposes.

3.9 Data analysis

Data was entered into SPSS Version 23 and check for missing values. After data entry cleaning was computed by running frequency. Descriptive statics was used to describe frequency and percentages and displayed in tables and text. Binary logistic regression was done to see the crude significant relation of each independent variable with dependent variables. Then independent variables found significant entered to multivariate logistic regressions to control the effect of confounding. Finally, significant factors were identify based on AOR include in 95% confidence level at P-value less than 0.05.

Dependent variables: knowledge of palliative care, attitude and practice in end of life care

Independent variables**:** Age, Sex, Education level and Working experience.

This study operational the variables as follows:

Good knowledge = ≥ 50% of the total score of the knowledge items.

Poor knowledge = < 50% of the total score of the knowledge items scale

Good attitude = ≥ 50% of the total score of the attitude items

Poor attitude = < 50% of total score of the attitude items

Good practice=≥ 50% of total score of the practice items

Poor practice=<50% of total score of the practice items.

3.10.0 Validity and reliability of the tool

The data collection tool was adapted from Palliative care quiz for nurses (PCQN) and Frommelt attitude for care of dying (FATCOD) which has been used in many countries to assess the nurses' knowledge and attitude regarding end of life care and has produced the same results with very minor variations due to cultural and training program in respective country. Again the pilot study was done to 5% (14) nurses from emergency department (EMD) at Muhimbili national hospital to see if the items can give the intended results, however, based on the findings from the pilot test, the questions which was not attempted or with ambiguity was removed while others were modified.

3.10.1 Ethical consideration

The ethical clearance was obtained from MUHAS institutional review board and the permission for conducting the study was obtained from the MNH research department. Also the permission was obtained from the director of nursing services and Block mangers. Well narrated informed consent form was prepared and shared to all participants after permission from the in-charge nurse

3.10.2 Submission and dissemination of findings

The findings from this study has provided the insight on the nurses' knowledge, attitude and practice in end of life care and has recommended improvements that will strengthen the nursing care in end of life for a dying patients and their families. Copies of the results will be submitted to the School of nursing, Muhimbili University of health and allied sciences for the requirement of Master's degree in nursing critical care and trauma. Also, the findings will be disseminated to the Muhimbili National Hospital (MNH) and Ministry of health, community development, elderly, gender and children for the policy and protocol improvements. Again, the findings will be presented in various scientific conferences inside and outside the country. Finally, the findings will be published in the academic journal for knowledge sharing purposes.

CHAPTER FOUR

4.0 Results

4.1 Socio-demographic data

A total of three hundreds and eight respondents (n=308) were expected to be recruited in this study. However, 274 (89.0%) responded to the questionnaire. High number of respondents 84 (30.7 %) were within the age 30-35 years. Most of them were female 150 (54.9%).The majority of respondents were diploma 167 (61.2%) and the most of them 112(40.9%) juniors with 5-10 years of working experience. About 181(66.7%) has heard about EoLC. However, majority 186 (68.6%) have no training regarding EoLC. (Table 1)

Table 1: Socio-demographic data.

Age	Frequency	Percent (%)
25-30	64	23.4
30-35	84	30.7
35-40	73	26.6
40-45	31	11.3
45+	22	8.0
Sex		
Male	123	45.1
Female	150	54.9
Education level		
Masters	7	2.6
Degree	92	33.7
Diploma	167	61.2
Certificate	7	2.6
Working experience		
<5yrs	83	30.3
5-10yrs	112	40.9
10-15yrs	53	19.3
16-20yrs	17	6.2
20-30yrs	9	3.3
Heard about EoLC		
Yes	187	66.7
No	91	33.3
Training regarding EoLC		
Yes	85	31.4
No	186	68.6

4.2 Nurses' Knowledge in end of life care

Respondents were assessed on their knowledge about end of life care using 27 questions. About 166(60.6%) strongly disagree that the end of life care comprises care of a dying patient and the families. About 84.3% strongly agree that nurse is an important team member of end of life care team, however 62.1% strongly disagree that patient and the family are the part of the team. Despite of their importance in EoLC, 30.9% of respondents strongly disagree that chaplain or shekhe are part of the team providing EoLC. Also 60.0% of respondents strongly disagree that social workers are part of the EoLC team. This results shows that participants have poor knowledge on key members comprising EoLC team.

With regard to indication for EoLC, 32.1% strongly disagree that organ failure is the indication of EoLC. (46.7%) strongly disagree that sudden death is the indication for EoLC. More than half of respondents, strongly agree that terminal illness (40.8%) is the indication for EoLC while (48.6 %) strongly agree that critical illness indicator for EoLC.

End of life care stage is associated with challenges which need nursing intervention, nurses' has good knowledge on the challenges in which high number of participants (49.5%) strongly agree pain is the challenge, anxiety (25.7%) agree and depression (36.3%) disagree.

With regard to time to initiate EoLC**,** 36.9% of participants strongly disagree that EoLC should be initiated alongside aggressive management. About 35.4% of participants strongly agree that EoLC should be initiated when a patient is full conscious while 45.9% agree that EoLC should be initiated when a patient is unconscious. This signifies that dying patient receive poor end of life care because nurses are not aware with when to initiate the care.

About 60% of participants strongly agree that morphine is the drug commonly used to control pain during end of life care. This indicates that most participants are knowledgeable on medication commonly used for pain management for patient given EoLC. With regard to knowledge on components of EoLC, about 28.5% strongly agree that information, comfort (36.4%), counselling (47.4%) are important component that should be included in EoLC package while 33.9% disagree that acceptance and bereavement 28.7% are component of EoLC.

Again, participants have poor knowledge with regard to the rights of dying patient that need to be considered when providing EoLC. Thirty three percent (33%) of participants disagree that patient has to make his/her own decision for his/her fate while 31.5% disagree that patients who are at end stage of life can propose a decision maker when he/she lost capacity while 35.1% disagree that a terminally ill patients has a right to select a place of death. On the other hand, 34.6 % agree that a dying patient has right to choose management (Table 2).

Table 2. Distribution of Nurses' knowledge in end of life care

Variables	SD	D	U	A	SA
Nurses' knowledge on the definition of end of life care					
End of life care is the care of dying patient and families	166(60.6%)	8(2.9%)	3(1.1%)	86(31.4%)	11(4.0%)
(a) Nurses knowledge on the member of end of life care team					
Patient and Family	108(40.0%)	18(6.7%)	7(2.6%)	46(17.0%)	91(33.7%)
Nurse	12(4.4%)	2(0.7%)	0(0.0%)	90(32.8%)	170(62.0%)
Chaplain/Shekhe	78(28.7%)	53(19.5%)	37(13.6%)	43(15.8%)	61(22.4%)
Social welfare	84(30.8%)	62(22.7%)	39(14.3%)	32(11.7%)	56(20.5%)
(b) Nurses knowledge on the indications for end of life care					
Patient with major organ failure	88(32.1%)	32(11.7%)	17(6.2%)	56(20.4%)	81(29.6%)
Sudden death	127(46.7%)	65(23.9%)	23(8.5%)	24(8.8%)	33(12.1%)
Patient with terminal illness	31(11.4%)	11(4.0%)	21(7.7%)	98(36.0%)	111(40.8%)
Patient with critical illness	20(7.3%)	15(5.5%)	13(4.7%)	93(33.9%)	133(48.6%)
(c) Knowledge on the signs and symptoms of the dying patient					
Persistent deterioration	66(24.4%)	68(25.2%)	39(14.4%)	63(23.3%)	34(12.6%)
Unstable vitals	83(30.3%)	29(10.8%)	55(20.5%)	60(22.4%)	41(15.3%)
(d) Nurses knowledge on challenges associated with end of life stage					
Pain	13(4.8%)	12(4.4%)	8(2.9%)	105(38.5%)	135(49.5%)
Anxiety	63(23.5%)	51(19.0%)	17(6.3%)	69(25.7%)	68(25.4%)
Depression	96(35.3%)	44(16.2%)	9(3.3%)	66(24.3%)	55(20.2%)
(e) Nurses knowledge on the time to initiate end of life care					
Alongside with aggressive management	99(36.9%)	89(33.2%)	20(7.5%)	34(12.7%)	26(9.7%)
When patient is full conscious	95(35.4%)	89(33.2%)	26(9.7%)	24(9.0%)	34(12.7%)
When patient is unconscious	23(8.6%)	20(7.5%)	28(10.4%)	122(45.9%)	74(27.6%)

(f) Nurses knowledge on the drug used to control pain at the end of life moments					
Morphine	16(5.9%)	1(0.4%)	3(1.1%)	89(32.6%)	164(60.1%)
(g) Nurses knowledge on the components of end of life care service					
Information	56(20.7%)	45(16.7%)	20(7.4%)	77(28.5%)	72(26.7%)
Comfort	42(15.4%)	32(11.8%)	10(3.7%)	99(36.4%)	89(32.7%)
Counselling	9(3.3%)	3(1.1%)	8(2.9%)	124(45.3%)	130(47.4%)
Acceptance	93(33.9%)	39(14.2%)	39(14.2%)	39(14.2%)	64(23.4%)
Bereavement	77(28.7%)	67(25.0%)	44(16.4%)	43(16.0%)	37(13.8%)
(h) Nurses knowledge on the rights of a dying patient					
Right to make decision for his/her fate	66(24.4%)	89(33.0%)	26(9.6%)	47(17.4%)	42(15.6%)
Right to propose the decision maker when he/she loss capacity	85(31.5%)	55(20.4%)	33(12.2%)	61(22.6%)	36(13.3%)
Right to choose management	27(10.0%)	33(12.3%)	30(11.2%)	93(34.6)	85(31.6%)
Right to select place of death	60(22.4%)	94(35.1%)	40(14.9%)	45(16.8%)	29(10.8%)

SD= Strongly disagree. D=Disagree U=Uncertain A=Agree SA= Strongly agree

The association between social demographic data with nurses' knowledge on the indication of EoLC was analyzed using chi-square test. The nurses' knowledge on the indications of end of life care is significantly associated with sex (X^2 =4.657, P-value= 0.031), and level of education (X^2 =9.831, P-value= 0.020). This association may be due to the fact that majority of participants in this study were female and were of diploma level. Table 3.

Table: 3 Association of social demographic characteristics and nurses' knowledge on the indications of EoLC

Variables	Indications of EoLC		X^2	P-value
	Agree	Disagree		
Age				
25-30	59(21.9%)	5(1.9%)		
30-35	74(27.4%)	9(3.3%)		
35-40	67(24.8%)	6(2.2%)	0.676	0.954
40-45	27(10.0%)	2(0.7%)		
45+	19(7.0%)	2(0.7%)		
Sex				
Male	107(39.8%)	16(5.9%)	4.657	0.031
Female	138(51.3%)	8(3.0%)		
Education level				
Masters	5(1.9%)	2(0.7%)		
Degree	77(28.6%)	13(4.8%)	9.831	0.020
Diploma	156(58.0%)	9(3.3%)		
certificate	7(2.6%)	0(0.0%)		
Working experience				
<5yrs	72(26.7%)	11(4.1%)		
5-10yrs	104(38.5%)	7(2.6%)		
10-15yrs	47(17.4%)	4(1.5%)	3.127	0.537
16-20yrs	15(5.6%)	1(0.4%)		
20-30yrs	8(3.0%)	1(0.4%)		

After adjustment of confounders, sex (AOR=1.450, 95%CI: 0.878-2.395, P-value=0.005) has significant association with nurses' knowledge on indication of EoLC. Table 4

Table4: Adjusted association between social demographic data and nurses' knowledge on the indication of end of life care

Variable	OR	CI (95%)		P-value	AOR	CI (95%)		P-value
		Lower	Upper			Lower	Upper	
Sex	1.667	1.025	2.711	0.040	1.450	0.878	2.395	0.005
Education level								
Masters'	1	1	1	0.014				
Degree	4.500	0.337	60.151	0.256	1.746	1.124	2.713	0.146
Diploma	8.432	0.974	73.014	0.053				
Certificate	3.900	0.459	33.145	0.213				

The association of social demographic data with nurses' knowledge on the dying patient rights was analyzed by using chi-square test. Sex of the participants (X^2 =4.262, P-value= 0.039) and education level (X^2 =11.250, P-value= 0.010) were statistically associated with nurses knowledge on the dying patient's rights. Table 5.

Table 5: Association social demographic characteristics with nurses' knowledge on the dying patients' rights of eolc

variable	Dying patient rights		Chi-square	p-value
	Strongly disagree	Strongly agree		
Age				
25-30	38(14.1%)	25(9.3%)		
30-35	35(13.0%)	46(17.1%)		
35-40	47(17.5%)	26(9.7%)	8.123	0.087
40-45	17(6.3%)	13(4.8%)		
45+	11(4.1%)	11(4.1%)		
Sex				
Male	58(21.6%)	63(23.5%)	4.262	0.039
female	89(33.2%)	58(21.6%)		
Education level				
Masters	4(1.5%)	3(1.1%)		
Degree	37(13.8%)	52(19.4%)	11.250	0.010
Diploma	100(37.3%)	65(24.3%)		
certificate	6(2.2%)	1(0.4%)		
Working experience				
<5yrs	44(16.4%)	37(13.4%)		
5-10yrs	63(23.4%)	47(17.5%)		
10-15yrs	29(10.8%)	23(8.6%)	1.993	0.737
16-20yrs	9(3.3%)	8(3.0%)		
20-30yrs	3(1.1%)	6(2.2%)		

After adjustment, education level with (AOR=2.581, 95%CI: 1.268-5.255, P-value=0.009) has significant association with nurses' knowledge on dying patient's rights in EoLS. Table 6

Table 6: The adjusted association between sex and education level with nurses' knowledge on dying patient rights

Variable	OR	CI (95%)		P-value	AOR	CI (95%)		P-value
		Lower	Upper			Lower	Upper	
Sex	2.579	1.064	6.253	0.036	2.075	0.837	5.142	0.115
Education level								
Masters'	1	1	1	0.048				
Degree	646183019.4	0.000	0.000	0.999	2.581	1.268	5.255	0.009
Diploma	272739586.1	0.000	0.000	0.999				
Certificate	93199473.96	0.000	0.000	0.999				

4.3 Nurses attitude towards end of life care and dying patient

Nurses attitude were assessed by using 16 questions. About 52.2% strongly agree that death is not a failure of care and treatment rather a pattern of human nature. Again 43.8% strongly agree that death is not the worst thing happening to a person. Meanwhile, 51.1% agree that a dying patient need care like other patient. On the other hand, 33.2%, participants agree that talking about impending death is uncomfortable thing and this could mean that some nurses do not discuss with their dying patient and the families about the impending death leading to poor plan of care in end of life stage. About 27.7% of participants disagree that it is beneficial for a dying patient to verbalize his or her wishes. This means that some nurses do not consider listening the wishes of dying patients as important nursing interventions. This could lead to failure in fulfilling wishes of dying patients during provision of EoLC. On the other hand, few participants (25.3%) disagree that a dying patient should be given honest answer. With regard to decision making, 33.9% disagree that a dying patient should be allowed to make decision for his/her care. About 24.3% agree that addiction to pain relieving medication should not be a concern when caring for dying patients. About 34.8% disagree that a dying patient and family should be in-charge decision maker though some few participants (33.9%) agree that caring for patient's family should be continued from grief to bereavement. About 37.3% disagree that it is necessary for the families to remain bedside till the death of their loved one (Table 7)

Table 7: Nurses' Attitude towards end of life care and a dying patient

Variables	SD	D	U	A	SA
Death not a failure of care and treatment rather a pattern of human nature	15(5.5%)	5(1.8%)	17(6.2%)	94(34.3%)	143(52.2%)
Death is not the worst thing to a person	22(8.0%)	29(10.6%)	22(8.0%)	81(29.6%)	120(43.8%)
Dying patient need care like other patients	10(3.6%)	22(8.0%)	10(3.6%)	92(33.6%)	140(51.1%)
Caring a dying patient and families is worthwhile experience	115(42.0%)	21(7.7%)	32(11.7%)	91(33.2%)	15(5.5%)
Talking about impending death is uncomfortable thing	33(12.0%)	59(21.5%)	35(12.8%)	91(33.2%)	56(20.4%)
When patient give-up, I get upset	43(15.9%)	87(32.1%)	52(19.2%)	53(19.6%)	36(13.3%)
Uncomfortable when a dying patient is crying	50(18.5%)	85(31.5%)	36(13.3%)	38(14.1%)	61(22.6%)
It is beneficial for dying patient to verbalize wishes	45(16.6%)	75(27.7%)	54(19.9%)	56(20.7%)	40(14.8%)
Dying patient should be given a honest answers to his/her condition	69(25.3%)	46(16.8%)	59(21.6%)	60(22.0%)	39(14.3%)
Dying patient should be allowed to make decision about their physical care	92(33.9%)	68(25.1%)	53(19.6%)	36(13.3%)	22(8.1%)
Addiction to pain relieving drug should not be a concern	66(24.3%)	65(23.9%)	49(18.0%)	49(18.0%)	43(15.8%)
Dying patient and families are in-charge decision maker	95(34.8%)	43(15.8%)	57(20.9%)	53(19.4%)	25(9.2%)
It is difficult to form relationship with dying patient	27(9.9%)	51(18.7%)	57(20.9%)	47(17.2%)	91(33.3%)
I feel uncomfortable to break bad news when a patient died	67(24.7%)	58(21.4%)	29(10.7%)	33(12.2%)	84(31.0%)
Caring for patient's family should be continued from grief to bereavement	92(33.9%)	33(12.2%)	61(22.5%)	18(6.6%)	67(24.7%)
It is necessary for the families to remain bedside till the death of their loved one	101(37.3%)	53(19.6%)	34(12.5%)	55(20.3%)	28(10.3%)

KEY: SD= Strongly disagree D=Disagree U=Uncertain A= Agree SA= Strongly agree

The association of socio-demographic data and nurse's attitude in end of life care were analyzed using chi-square test. The nurses' attitude (X^2 =1.005, 0.942, 1.226 and 6.834, P-value=0.909, 0.332, 0.747 and 0.145) respectively has no statistical significant association with nurses' characteristics (**Table 8).**

Table 8. Association between social demographic data and nurses' attitude in EoLC

Variables	Nurses attitude in EoLC		X^2	P-value
	Strongly disagree	Strongly agree		
Age				
25-30	28 (10.2%)	36(13.1%)		
30-35	36(13.1%)	48(17.5%)		
35-40	32(11.7%)	41(15.0%)	1.005	0.909
40-45	16(5.8%)	15(5.5%)		
45+	11(4.0%)	11(4.0%)		
Sex				
Male	51(18.7%)	72(26.4%)	0.942	0.332
Female	71(26.0%)	79(28.9%)		
Education level				
Masters	3(1.1%)	4(1.5%)		
Degree	37(13.6%)	55(20.1%)	1.226	0.747
Diploma	79(28.9%)	88(32.2%)		
certificate	3(1.1%)	4(1.5%)		
Working experience				
<5yrs	34(12.4%)	49(17.9%)		
5-10yrs	46(16.8%)	66(24.1%)		
10-15yrs	32(11.7%)	21(7.7%)	6.834	0.145
16-20yrs	8(2.9%)	9(3.3%)		
20-30yrs	3(1.1%)	6(2.2%)		

4.4 Nurses 'practices in end of life care

About 71.5% reported that they don't give necessary information to dying patient and families while 78.1% do not give enough time to discuss with a dying patient. Regarding involving a dying patient in decision making, 80.3% do not involve the dying patient and families in decision making abut care and management. Majority 75.5% they don't ask for consent from the patient to share his/her information to relative, this imply that there is no confidentiality regarding end of life care. Surprisingly, 68.9% of the nurses do not apply health counselling to a dying patient and family, this means that dying patient and their families receive inadequate counselling during the end of life care. 70.4% of nurses agreed that do not resuscitate (DNR), withdraw treatment and withhold treatment are common practice regarding dying patients, this indicates that most of dying patients remain on bed waiting their moments with poor care and treatment. Table 9

Table 9: Nurses' Practice in end of life care

Practice in EoLC	Yes	No
I give necessary information to dying patient and families	78(28.5%)	196 (71.5%)
I give enough time to discuss with a dying patient	60(21.9%)	214(78.1%)
I involve patient in decision making about care	54(19.8%)	219(80.3%)
I ask consent from the patient to share his/her information to relative	67(24.5%)	207(75.5%)
I determine nursing diagnosis from patient assessment	176(64.7%)	96(35.3%)
Modify care plan based on patient need, priorities and expectations	54(20.0%)	216(80.0%)
Utilize available resource in collaboration with client to develop care plan	102(37.5%)	170(62.5%)
Demonstrates nursing knowledge to maintain safety of patient and families	154(56.6%)	118(43.4%)
I apply health counselling to patient and family	85(31.1%)	188(68.9%)
CPR is done to every dying patient	39(14.4%)	132(85.6%)
Breaking bad news is my responsibility	162(60.0%)	110(40.0%)
Do not resuscitate, withhold and withdraw treatment and care are common practices to a dying patient	191(70.4%)	80(29.6%)

The association of nurses' practices and social demographic characteristics was analyzed also by using chi-square test, the results showed no statistical significant association. Table 10

Table 10: Association of nurses practice and social demographic characteristics (n=273)

Variables	Nurses practice in EoLC		X^2	P-value
	Yes	No		
Age				
25-30	13(4.7%)	51(18.7%)		
30-35	20(7.3%)	64(23.3%)		
35-40	16(5.8%)	57(20.8%)	3.580	0.893
40-45	9(3.3%)	22(8.0%)		
45+	3(1.1%)	19(7.0%)		
Sex				
Male	32(11.7%)	91(33.3%)	1.758	0.415
Female	29(10.6%)	121(44.3%)		
Education level				
Masters	1(0.4%)	6(2.2%)		
Degree	21(7.7%)	71(26.0%)	2.707	0.845
Diploma	38(13.9%)	129(47.3%)		
certificate	1(0.4%)	6(2.2%)		
Working experience				
<5yrs				
5-10yrs	20(7.3%)	63(23.0%)		
10-15yrs	26(9.5%)	86(31.4%)	3.869	0.869
16-20yrs	8(2.9%)	45(16.4%)		
20-30yrs	8(2.9%)	12(4.4%)		
	3(1.1%)	7(2.6%)		

4.6 Summary of the results

Variable	Results	
Nurses' knowledge	Good knowledge	Poor knowledge
	44.4%	55.6%
Nurses' attitude	Good attitude	Poor attitude
	37.5%	62.5%
Nurses' practice	Good practice	Poor practice
	27.3%	72.7%

CHAPTER FIVE

5.0 Discussion

The aim of this study was to determine nurses' knowledge, attitude and practice in end of life care, however the study found that 55.6% of participants have poor knowledge, 62.5% of the participants have poor attitude and 72.7% of participants have poor practice regarding end of life care.

End of life care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness. It also improves life of patient via the prevention and relief of suffering by means of early identification, assessment and treatment challenges which are physical, psychosocial and spiritual. This study was done to assess the nurses' knowledge, attitude and their current practices in end of life. The study shows that 55.6% has poor knowledge, maybe due to lack of education and training to nurses regarding end of life care and it is evident that there is no link between nursing education curriculum and end of life care in Tanzania. This finding is parallel to the studies done in Democratic republic of Congo (Ayed *et al.*, 2015) 70.5%, (Zeru *et al.*, 2020) 62.8%, Tigrey Ethiopia by (Abate *et al.*, 2019) 71.0%, (Karbasi *et al.*, 2018) and (Alemnesh, 2014) 69.5% showed that nurses have poor knowledge about end of life care. This similarity maybe due to the fact end of life care was not incorporated in the nursing curriculum.

This study also found that many nurses have no training of end of life care (68.6%). This is similar to the study done in Lubumbashi (Ayed *et al.*, 2015) which showed that 90.2% nurses had no training on end of life care. However, from this study, the percentage is low probably end of life care was related with last office care which is taught in nursing school and this may have been influenced the participants' responses. This indicates that nursing education and training regarding end of life care need to be integrated in nursing curriculum in order to equip nurses with these key competencies for effective end of life care which is a universal need for everyone.

The study found strong statistically significance association between nurses' knowledge about dying patient rights, may be those with degree level have more considerate on the patient rights compared to those with diploma level. Also those with degree might have superior understanding of the tool used (FATCOD scale).

Therefore, a comprehensive education program should be established to increase end of life care competencies for nurses. The program is needed to strengthen nurses' knowledge on philosophical aspects of end of life care, principles of end of life care, the dying process, and the role of health care professionals at the end of life stage. Regarding psychosocial and spiritual care, nurses need to be trained in how to communicate bad news effectively and those nurses who provide end of life care should comprehensively recognize the bereavement process.

The study showed poor attitude in about 62.5% nurses. This is similar to the study done at Kilimanjaro Christian medical centre(KCMC) Moshi Tanzania (Lewis *et al.*, 2018) which reported that nurses don't talk about death with their patients. This could be due to cultural sensitivity and the myth the community have about death that talking about death is just like you are wishing someone to die. The other study done in Lubumbashi hospital Congo reported that 70.6% of nurses were uncomfortable when talking about impending death. This could be attributed by cultural beliefs regarding death that makes discussion and talking about impending death with the patient and families to potentially have psychological effects to dying patient and families. This results is quite different from other studies on nurse's attitude in end of life care (Blaževičienė, Laurs and Newland, 2020) and (Alemnesh, 2014) 76.0% and (Abate *et al.*, 2019) 70.7% which concluded that nurses had a favorable attitude regarding end of life care. This is difference from what was found in this study could be accounted by the fact that participants in this study are not exposed about EoLC even during their basic training. Nurses has poor attitude about the relative to remaining bedside till the death of their loved one 37.2%, probably they have interpreted as that relatives should be at bedside all the time which might interfere with their activities. Also Tanzania health policy do not allow relative to remain on bedside during the care and management, this may have affected the nurse's responses, again this is similar to the study done in Seoul Korea (2012) in which only 1.4% supported that relative should be at

bedside all the till the death of their loved one. Generally, this study showed that nurses have poor attitude regarding end of life care, this results is not parallel with the study done in Saudi Arabia 83% and India 92.8% which showed favorable attitude among nurses. The possible reason for this differences may be due to the lack of end of life care education in the nursing curriculum in Tanzania compared to those countries.

This study found that few nurses (27.3%) has good practice regarding end of life care. This results is reflective of what was found with regard to nurse's knowledge and attitude on end of life care. Basically practice is influenced by knowledge and attitude as it has shown from the conceptual framework in this study. About 78.1% they don't have enough time to discuss with the dying patient probably due staff shortage, busy words and unsupportive environment for end of life care discussion. Additionally, 80.3% do not involve dying patient in decision making. This could be attributed to lack of competence in initiating discussion related to end of life care. Involving patient in decision making is very crucial at this stage as it lead to effective care by allowing a dying patient to plan for care, reconcile with loved and define the meaning of life. Furthermore, about 68.9% do not apply health counselling to a dying patient and the families and this might be due to the fact that majority of respondents are the diploma holders who may have limited knowledge on counselling skill which might have affected their practices. However, do not resuscitate (DNR), withdraw treatment and withhold treatment are the common practice to a dying patient identified by nurses in end of life care though not clearly known to be connected to their decisions regarding a dying patient.

5.1 Limitations of the study

The study design may have been limited the participants to the specific options instead of participants views

Self-administered questionnaire could have been given a chance for participants to fill it without concentrating and understanding.

5.2 Conclusion

From this study, nurses have poor knowledge, poor attitude and poor practice regarding end of life care. This could have been subjected the dying patient and their families into suffering and

death without dignity. Education programs that will ensure comprehensive knowledge in end of life care should be extensively provided for all nurses in general.

5.3 Recommendations

According to the findings of this study I recommend the following

1. Muhimbili National hospital should provide immediate on job training to improve nurse's knowledge, attitude and practice in end of life care
2. Teaching institutions should review their curriculum to incorporate end of life care so as upcoming professional nurses will have adequate knowledge and attitude to improve their practice in end of life care
3. Further study is required to assess the quality of end of life care services to dying patients admitted in hospitals.

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MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES (MUHAS)

DIRECTORATE OF RESEARCH AND PUBLICATIONS

MUHAS INFORMED CONSENT FORM

NAME: Marco James Marco: (**HD/MUH/T.520/2019)**

Consent to participate in a study:

Title: Nurse's knowledge, attitude and practice in end of life care at tertiary teaching hospital, Dar-es-salaam Tanzania

Purpose of the Study

The purpose of the study is to assess nurses' knowledge, attitude and practice in end of life care at tertiary teaching hospital, Dar-es-salaam Tanzania

What Participation Involves

If you agree to join the study, you will be interviewed in order to answer a series of questions in the interview guide prepared for the study.

Confidentiality

The information from the study will be kept in a safe place with access to authorized personnel only and will be used for research purposes only. No names will be used instead identification number will be used to represent the participants.

Risks

For this study we do not expect any risk while participating in this study.

Rights to Withdraw and Alternatives

To participate in this study is completely your choice. You are free to choose either to participate in this study or not. You can decide to stop participating in this study at any time you wish even if you have already given your consent. Refusal to participate or withdrawal from the study will not involve penalty or loss of any benefits to which you are otherwise entitled.

Benefits

If you agree to take part in this study there are no direct benefits that you will get from this study but we believe the information you will provide will help in improving nurse's knowledge, attitude and practice in the end of life care at Muhimbili National Hospital Dar es Salaam.

Compensation

There will be no compensation of any kind for participating in this study.

Whom to contact:

In case of any questions about this study, don't hesitate to contact the principal investigator **Marco James Marco** Muhimbili University of Health and Allied Sciences School of Nursing P.O. Box. 65004 Dar es Salaam, through **Mobile +255 756461403** or research supervisor **Dr Dickson Mkoka,** Muhimbili University of Health and Allied Sciences School of Nursing P.O. Box. 65004, Dar es Salaam, **Mobile Number +255 718 694 495/ 628 139 150.**

If you ever have questions about your rights as a participant, you may contact the Director of Research and Publications Committee **Dr. Bruno Sunguya** Muhimbili University of Health and Allied Sciences P.O. Box 65001 Dar es Salaam **Tel Tel + 255 222150302 -6/ 2152489**

Do you agree?

Participant agrees………………… Participant does not agree………………………….

I have read the content in this form. My questions have been answered. I agree to participate in this study.

Signature of participant …………………………………………

Signature of principal investigator ……………………………..

Date of signed consent………………………………………….

Appendix III: Data collection tool

Part A: Social-demographic data and professional characteristics

What is your current working ward?

Specify …………………

1. What is your age? (Tick the appropriate)

25-30 ( ) 30-35 ( ) 35-40 ( ) 40-45 ( ) 45+ ( )

2. Sex   Male ( )   Female ( )

3. What is your education level (Tick the appropriate level of yours?)

Master's degree ( )

Degree ( )

Diploma ( )

Certificate ( )

4. What is your working experiences (Tick the appropriate)

<5yrs ( ) 5-10yrs ( ) 10-15yrs ( ) 16-20yrs ( ) 20-30 yrs ( ) 30+ ( )

5. Have you heard about end of life care?

Yes ( ) No ( )

7. Do you have training regarding end of life care?

Yes ( ) No ( )

Part B: Nurses knowledge assessment tool

S/N	Items	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
1	End of life care is a care of dying patient and the families					
	Members of end of life care team					
2	Patient & Families					
3	Nurse					
4	Chaplain					
5	Social workers					
	Indications for end of life care					
6	Major organ failure					
7	Sudden death					
8	Terminal illness					
9	Critical illness					
	Signs and Symptoms of end of life care					
10	Persistent deterioration					
11	Unstable vital signs					
12	Terminal illness					
	Challenges of end of life stage needs nursing interventions					
13	Pain					
14	Anxiety					
15	Depression					
	When to initiate end of life care					
16	Alongside aggressive management					
17	When a patient is full conscious					
18	When a patient is unconscious					
	Drug used to control pain in end of life care					
19	Morphine					
	Stages of end of life care					
20	Information					
21	Comfort					
22	counselling					
23	Acceptance					
24	Bereavement					
	Dying patient rights					

25	To make the decision for his/her fate					
26	To propose the decision maker when he/she loss capacity					
27	To choose management					
28	To select where she/he prefer to die					

Part C: Nurses' attitude assessment tool

S/N	Item	Strongly disagree	disagree	Uncertain	Agree	Strongly agree
1	Death is not a failure of care and treatment, it is rather a pattern of human nature.					
2	Death is not the worst thing that can happen to a person					
3	A dying patient need care like other patients					
4	Caring for a dying patient and his/her families is the worthwhile experience to me					
5	Talking about impending death with dying patient and families is uncomfortable thing					
6	When a patient I used to care give up of getting better, I get upset					
7	I would be uncomfortable if entered the room of a terminally ill person and found him or her crying					
8	It is beneficial for the dying person to verbalize his or her feelings					
9	Dying person should be given honest answers about their condition					
10	The dying person should not be allowed to make decision about his or her physical care					

11	Addiction to pain relieving medications should not be a concern when dealing with a dying person					
12	The dying person and his or her family should be the in-charge decision makers					
13	It is difficult to form a relationship with the dying person					
14	When a patient dies, I feel uncomfortable to break the bad news to the relatives					
15	Caring for the patient's family should continue throughout the period of grief and bereavement					
16	It is necessary for relative to remain bedside till the death of their loved one					

Part D: Nurses practices assessment tool

S/N	Variables	Yes	No
1	I give the necessary information to a dying patient and the families		
2	I give enough time to discuss with a dying patient		
3	I involve a patient in decision making about his/her care		
4	I ask the consent from the patient to share his/her information to relative in the plan of care		
5	Do not resuscitate (DNR, Withdraw treatment, Withhold treatment are common practice		
6	Utilize best available data, resource and evidence in collaboration with client to develop plan of care		
7	Demonstrates nursing knowledge and clinical judgment to maintain safety, reduce risk of physical, psychological, social-economic and spiritual injury to patient and the families.		
8	Evaluate and modify plan of care based on client needs, priorities and expectations		
9	I give all the necessary nursing care to a dying patient regardless the disease stage		
10	Applies health counselling to patient and family		
11	CPR is done to every patient in dying stage		
12	Breaking bad news to the relatives is my responsibility		

Appendix IV: Ethical Clearance

UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

OFFICE OF THE DIRECTOR - RESEARCH AND PUBLICATIONS

Ref. No.DA.282/298/01.C/ Date: 22/04/2021

MUHAS-REC-04-2021-563
Marco James Marco
Shool of Nursing
MUHAS

RE: APPROVAL FOR ETHICAL CLEARANCE FOR A STUDY TITLED: NURSES' KNOWLEDGE, ATTITUDE AND PRACTICE OF END OF LIFE CARE AT TERTIARY TEACHING HOSPITAL, DAR- ES SALAAM, TANZANIA

Reference is made to the above heading.

I am pleased to inform you that the Chairman has on behalf of the University Senate, approved ethical clearance of the above-mentioned study, on recommendations of the Senate Research and Publications Committee meeting accordance with MUHAS research policy and Tanzania regulations governing human and animal subjects research.

APPROVAL DATE: 22/04/2021
EXPIRATION DATE OF APPROVAL: 22/04/2022

STUDY DESCRIPTION:

Purpose:
The purpose of this cross-sectional study is to assess nurse's knowledge, attitude and practices in end of life care in tertiary hospital Dar-es-salaam Tanzania.

The approved protocol and procedures for this study is attached and stamped with this letter, and can be found in the link provided: https://irb.muhas.ac.tz/storage/Certificates/Certificate%20-%20609.pdf and in the MUHAS archives.

9 United Nations Road; Upanga West; P.O. Box 65001, Dar Es Salaam; Tel. G/Line: +255-22-2150302/6; Ext. 1036; Direct Line: +255-22-2152489; Telefax: +255-22-2152489, E-mail: drp@muhas.ac.tz; Web: https://www.muhas.ac.tz

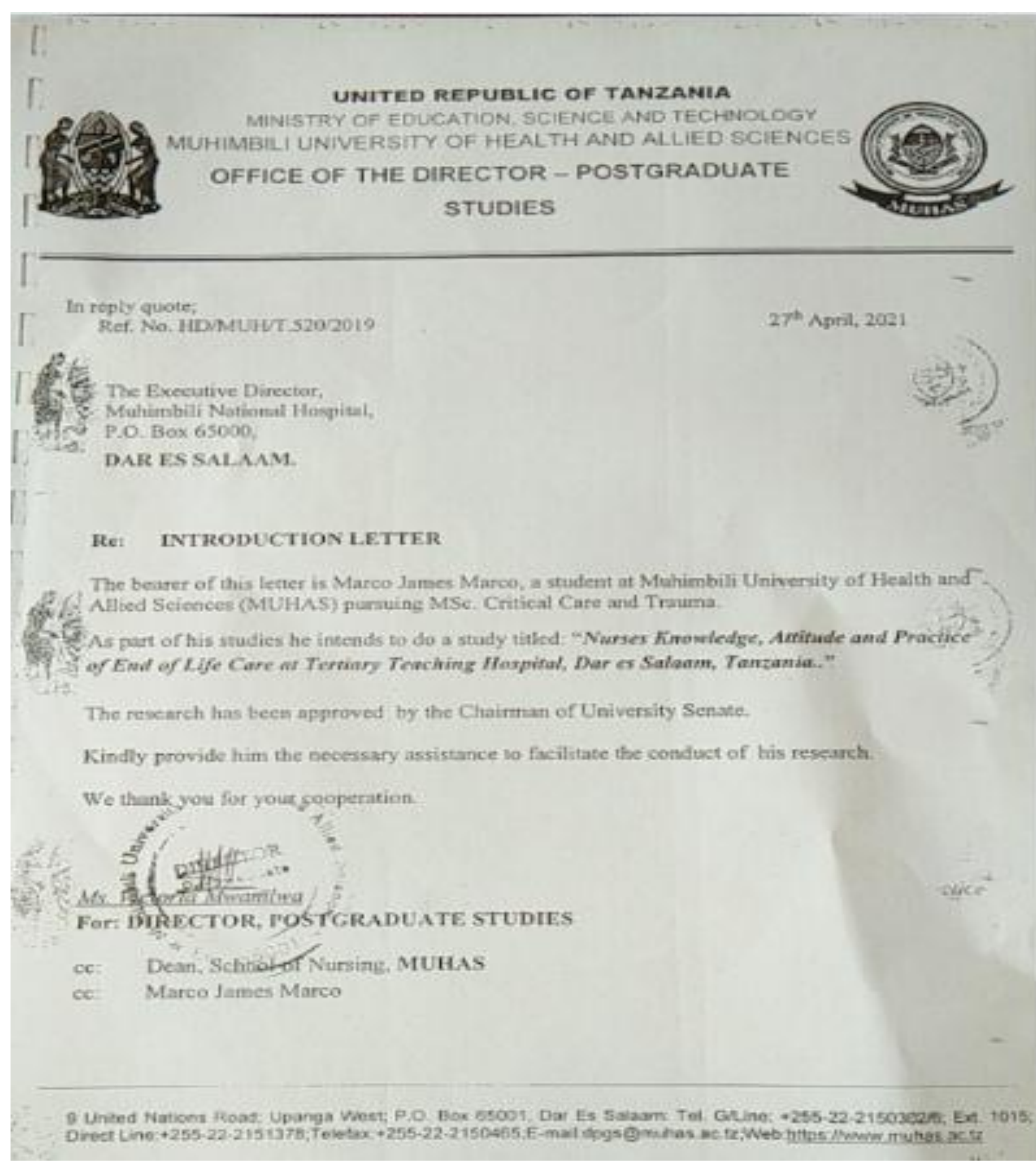
The PI is required to:

1. Submit bi-annual progress reports and final report upon completion of the study.
2. Report to the IRB any unanticipated problem involving risks to subjects or others including adverse events where applicable.
3. Apply for renewal of approval of ethical clearance one (1) month prior its expiration if the study is not completed at the end of this ethical approval. You may not continue with any research activity beyond the expiration date without the approval of the IRB. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.
4. Obtain IRB amendment (s) approval for any changes to any aspect of this study before they can be implemented.
5. Data security is ultimately the responsibility of the investigator.
6. Apply for and obtain data transfer agreement (DTA) from NIMR if data will be transferred to a foreign country.
7. Apply for and obtain material transfer agreement (MTA) from NIMR, if research materials (samples) will be shipped to a foreign country.
8. Any researcher, who contravenes or fail to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine as per NIMR Act No. 23 of 1979, PART III section 10 (2)
9. The PI is required to ensure that the findings of the study are disseminated to relevant stake holders.
10. PI is required to be versed with necessary laws and regulatory policies that govern research in Tanzania. Some guidance is available on our website https://drp.muhas.ac.tz/.

Dr. Bruno Sunguya
Chairman, MUHAS Research and Ethics Committee

9 United Nations Road; Upanga West; P.O. Box 65001, Dar Es Salaam. Tel. G/Line: +255-22-2150302/6; Ext. 1038;
Direct Line: +255-22-2152489; Telefax: +255-22-2152489; E-mail: drp@muhas.ac.tz; Web: https://www.muhas.ac.tz

Appendix V: Introduction Letter



UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
OFFICE OF THE DIRECTOR – POSTGRADUATE STUDIES

In reply quote;
Ref. No. HD/MUH/T.520/2019

27th April, 2021

The Executive Director,
Muhimbili National Hospital,
P.O. Box 65000,
DAR ES SALAAM.

Re: INTRODUCTION LETTER

The bearer of this letter is Marco James Marco, a student at Muhimbili University of Health and Allied Sciences (MUHAS) pursuing MSc. Critical Care and Trauma.

As part of his studies he intends to do a study titled: "***Nurses Knowledge, Attitude and Practice of End of Life Care at Tertiary Teaching Hospital, Dar es Salaam, Tanzania.***"

The research has been approved by the Chairman of University Senate.

Kindly provide him the necessary assistance to facilitate the conduct of his research.

We thank you for your cooperation.

Ms. [illegible] Mwamilwa
For: DIRECTOR, POSTGRADUATE STUDIES

cc: Dean, School of Nursing, **MUHAS**
cc: Marco James Marco

9 United Nations Road; Upanga West; P.O. Box 65001, Dar Es Salaam: Tel. G/Line: +255-22-2150302/6; Ext. 1015; Direct Line:+255-22-2151378;Telefax:+255-22-2150465;E-mail:dpgs@muhas.ac.tz;Web:https://www.muhas.ac.tz

Appendix VI: Permission Letter

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

MUHIMBILI NATIONAL HOSPITAL

In reply please quote;

Ref. No.: MNH/TRCU/Perm/2021/115

Date: 10th May, 2021

Director of Nursing Services
Muhimbili National Hospital

RE: PERMISSION TO COLLECT DATA AT MNH.

Name of Student	Marco James Marco
Title	"Nurses Knowledge, Attitude and Practice of End of Life Care at Tertiary Teaching Hospital, Dar es Salaam Tanzania."
Institution	Muhimbili University of Health and Allied Sciences
Supervisor	Dr. Dickosn A. Mkoka
Co - Supervisor	Mr. Baraka Morris
Period	10th May 2021, to 10th June, 2021

Approval has been granted to the above mentioned student to collect data at MNH.

Kindly ensure that the student abide to the ethical principles and other conditions of the research approval

Sincerely,

MNH TEACHING, RESEARCH & CONSULTANCY UNIT
P.O. Box 65000
DAR-ES-SALAAM
MUHIMBILI NATIONAL HOSPITAL

Reid B. Mchome
Coordinator –Teaching, Research and Consultancy Unit

c.c **Marco James Marco**

Upanga West, Kalenga Street, Plot No. [illegible], P.O. BOX 65000, Dar es Salaam, Tanzania
Telephone: [illegible], Telephone: +255-22-2151351-2
Email: info@mnh.or.tz, Website: www.mnh.or.tz