KNOWLEDGE, ATTITUDE AND PRACTICES ON PRESSURE ULCER PREVENTION IN CRITICALLY ILL PATIENTS AMONG NURSES AT MULAGO NATIONAL REFERRAL HOSPITAL, KAMPALA, UGANDA

BY

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A RESEARCH DISSERTATION SUBMITTED TO KING CAESAR UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELORS IN NURSING SCIENCE

FEBRUARY, 2024

DECLARATION

I **KIRABO VIOLET VICKY,** declare to the best of my knowledge that this research report is my original work through my effort and it has never been submitted to any institution for any award before and is being submitted with the approval of my supervisor. However, other individual work is referred to, thus has been cited and acknowledged clearly.

Signature ..... Date: .....

KIRABO VIOLET VICKY

(Researcher)



APPROVAL

NAME OF STUDENT: KIRABO VIOLET VICKY

TITLE OF THE RESEARCH TOPIC: Knowledge, Attitudes and Practices on pressure ulcer prevention in critically ill patients among Nurses at Mulago National Referral Hospital, Uganda

I hereby accept this research report on the above topic for this student under my supervisor and approve it for submission to commence data collection.

Signature..... **Date**.....

DR. OPIO DICKSON

(Supervisor)



DEDICATION

This research is sincerely dedicated to my supportive parents who encouraged me to go back to school. They have never left my side throughout the process and gave me strength and hope when I thought of giving up.

To my sisters and brothers, they provided me a great sense of enthusiasm and perseverance in continuing this without their love and assistance, this research would not have been made possible.

I dedicate this research paper to miss Kadondi Irene who have been constantly guiding and teaching me to make this stud better , to my family for cheering up for me and to my friends who have helped me in finishing this research report. I really appreciate your words of advice and in continuously giving me moral ‘ emotional and financial support.

Lastly, I dedicate this research paper to the almighty God who gives me the strength, wisdom, guidance, power of thinking and forging me good health while doing this. All of these I offer you.

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I would like to acknowledge and give my warmest thanks to my supervisor, Mr. OPIO Dickson who made this work possible. His guidance and advice carried me through all the stages of writing my report.

My sincere appreciation goes to the administration of Mulago National Referral Hospital for granting me permission to carry out this research in the Mulago hospital, Kampala district.

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I would also like to give special thanks to my family as a whole for their continuous support and understanding when undertaking my research and writing my report. Your prayers for me is what sustained me this far.

Finally, I would like to thank God for letting me through all the difficulties. I have your guidance day by day. You are the one who let me finish my degree. I will keep on trusting you for my future.

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DEFINITION OF KEY TERMS

Attitudes: In this study, attitude means what one thinks about something or someone. It may be positively or negatively.

Critically ill: Is a patient with a life-threatening multisystem process that can result in significant morbidity or mortality.

Knowledge: In this study, knowledge means facts, information, and skills attained through experience or education either as the theoretical or practical understanding of the topic.

Nurse: A person trained and licensed to provide care for the sick.

Practice: In this study, practice means the actual application or use of an idea, belief, or method, as opposed to theories relating to it.

Pressure Ulcer Prevention: Are efforts to prevent or reduce the severity of pressure ulcers before they occur in a critically ill patient.

Pressure Ulcer: Also known as pressure sores, decubitus ulcers, or bedsores, is localized injury to the skin and or underlying tissue usually over a bony prominence, as a result of pressure or pressure in combination with shear and or friction**.**

Risk factor: Any attribute, characteristic or exposure of an individual that increases the likelihood of developing pressure ulcers.

LIST OF ABBREVIATIONS

CCF:	**C**ongestive **C**ardiac **F**ailure
CSCM:	**C**onsortium for **S**pinal **C**ord **M**edicine
HMIS:	**H**ealth **M**anagement **I**nformation **S**ystems
ICU:	**I**ntensive **C**are **U**nits
KAP:	**K**nowledge **A**ttitudes **P**ractices
PU:	**P**ressure **U**lcer
PUP:	**P**ressure **U**lcer **P**revention
UDHS:	**U**ganda **D**emographic **H**ealth **S**urvey
UKCSA:	**U**nited **K**ingdom **C**are and **S**upport **A**lliance
WHO:	**W**orld **H**ealth **O**rganization

ABSTRACT

This research report is from a study aimed at establishing the knowledge, attitude and practices on pressure ulcer prevention in critically ill patients among Nurses at Mulago National Referral Hospital. The researcher used descriptive cross-sectional study design to obtain quantitative and qualitative data from the respondents. The study population was constituted by nurses attending to critically ill patients and the sample size was 50.

Specific objectives: of the study: Were to determine the knowledge, attitude and practices on pressure ulcer prevention in in critically ill patients among Nurses at Mulago National Referral Hospital, the study setting.

Key study findings: Indicated that in demographics almost three quarters were female, almost half 48% had working experience of 6-10 years and more than half 58% were diploma holders and only 30% had undergone specialized training in managing PUP in critically ill patients at Mulago National Referral Hospital.

Knowledge: Most respondents 80.6% had inadequate knowledge towards managing PUP in critically ill patients. There was a serious gap as regards both specialized and refresher training.

Attitudes: More than 30% of the respondents had poor attitudes towards managing PUP in critically ill patients. Which was attributed to limited mentoring.

Practices: More than 30% of the respondents exhibited poor practices towards managing PUP in critically ill patients. Which was attributed to limited knowledge and support supervision, as well as poor attitudes towards the practice..

Conclusions: Study findings therefore indicated that the absence of regular support supervision and mentoring by senior nurses, as well as lack of specialized and refresher training were more likely to compromise the knowledge, attitudes and practices of young inexperienced nurses towards the management of critically ill patients against the condition of pressure ulcers which will in turn compromise the quality of health service delivery among the patients.

Recommendations: Regular support supervision and mentoring by senior nurses, as well as providing specialized and refresher training were more likely to significantly improve the knowledge, attitudes and practices of young inexperienced nurses towards the management of critically ill patients against the condition of pressure ulcers which will in turn improve the quality of health service delivery among the patients.

CHAPTER ONE

1.0 Introduction

According to the World Health Organization (WHO), Pressure ulcer, sometimes called bedsore, is a localized injury to the skin or underlying tissue caused by pressure mostly over a bony prominence, friction and moisture. Ulcers often occur when patients have limited mobility and cannot change positions in bed on their own Simonetti, et al., (2015). Having adequate knowledge of risk assessment to identify patients at risk, risk factors and vulnerable patients and management is an important strategy in preventing pressure ulcer. According to The Consortium for Spinal Cord Medicine (CSCM), such factors may include extremes of age, patients with chronic illnesses such as cardiovascular diseases, diabetes mellitus, anemia, spinal injuries, fractured pelvic, Alzheimer's disease, obesity, Congestive Cardiac Failure (CCF), (CSCM, 2018).

Pressure Ulcers (PU) are prevalent problem that exist in various health settings. They can lead to morbidity, lengthy hospital stay, high cost of stay in hospital and negative impact on patients, quality life (EthiloNel, Angel &Parec, et al 2016). Critically ill patients are likely to suffer from morbidities that increase the risk of PU. Patients that are at risk of developing pressure ulcers by nurses is an essential part of preventive care (Habibaliah, 2018). Pressure ulcer prevention is a priority for nurses, healthcare professionals and healthcare organizations throughout the world, and a key factor in pressure ulcer prevention.

1.1 Background of the problem

According to the United Kingdom Care and Support Alliance (UKCSA), worldwide Pressure ulcers (PUs) pose a serious health problem in all health care settings and resident homes across the globe, especially in developing and third world countries (UKCSA, 2017). Kallum &Suserud (2016) for example in Sweden found out that lack of adequate knowledge of pressure risk areas among nurses and their attitude towards very ill patients is a major factor

affecting the practice of pressure ulcer prevention in the country. While in another study (Hunt et al., 2016) revealed that in United States nearly 1 million people develop pressure ulcers annually, while approximately 60,000 acute care patients die from related complications the same finding shows that the estimated cost of managing stage pressure injury per patient is 70–150 thousand dollars, and the total cost for treatment of pressure ulcers in the United States is estimated at 9–11 billion dollars per year and all these are blamed on lack of adequate knowledge and attitude of nurses towards the care of critically ill patients.

In sub-Sahara Africa, as well as other developing countries in the world, pressure ulcers develop in 8 out of every 10 confined and immobile patients both in hospital and home settings, most often as a result of poor assessment and management of the patients by nurses Worku, et al., (2018) for example in Addis Ababa found out that heavy workload/inadequate staff, nurses attitude towards critically ill and dirty patients, shortage of resources and inadequate training about PU for nurses posed a serious problem in managing very ill patients in the hospital (Agba et al., 2018) for example in Nigeria revealed that Lack of nurses' exposure to continuous education on current pressure ulcer preventive, poor work attitude of nurses and lack of available resources for prevention of pressure ulcer affect implementation of pressure ulcer prevention in most of the hospitals.

While studies done in Uganda (Nwebaza., 2014) indicate that major factors affecting pressure ulcer prevention include inadequate knowledge, poor attitudes and practices of nurses and attendants. No study has been done at the proposed study setting so far, and if it is not done, critically ill patients shall continue to suffer from co-morbidities of pressure ulcers which has prompted the researcher to do the study.

This study will therefore assess Knowledge Attitude and Practices of nurses and attendants on pressure ulceration prevention among ill patients.

1.2 Problem statement

Pressure ulcers is a major health problem among the critically ill patients who are bed ridden worldwide and significantly limits many aspects of an individual's well-being, including general health and physical, social, financial, and psychological quality of life Baranoski & Ayello (2017).Uganda is one of the developing countries where most of its health care systems are facing challenges in the management of critically ill patients who always end up with developing Pressure Ulcers, Uganda Demographic Health Survey (UDHS 2017). According to (HMIS, 2020) report at least 10:100 critically ill patients admitted countrywide do develop pressure ulcer due to so many factors like work overload on the nurses, lack of continued medical education in the management of critically ill patients and worse still the attitude of some nurses towards handling dirty critically ill patients.

The prevention of Pressure Ulcers should be taken into consideration by the nurses working in the hospitals, but study has been done on Knowledge Attitudes and Practices of nurses towards the prevention of pressure ulcers among critically ill patients.

1.3 Purpose of the study

The study's purpose is to determine the Knowledge attitude and practices (KAP) of nurses towards PUP in critically ill patients at Mulago Hospital, Kampala district in order to identify gaps among the nurses so as to design the strategies to address the problem.

1.4 Specific objectives

- To assess the knowledge of nurses working in Mulago hospital towards pressure ulceration prevention among ill patients.
- To determine the attitude of nurses working in Mulago hospital towards pressure ulceration prevention among ill patients.
- To establish the practice of nurses working in Mulago hospital towards pressure ulceration prevention among ill patients.

1.5 Research questions

- What is the knowledge of nurses working in Mulago hospital towards pressure ulceration prevention among ill patients?
- What are the attitudes of nurses working in Mulago hospital towards pressure ulceration prevention among ill patients?
- What are the practices of nurses working in Mulago hospital towards pressure ulceration prevention among ill patients?

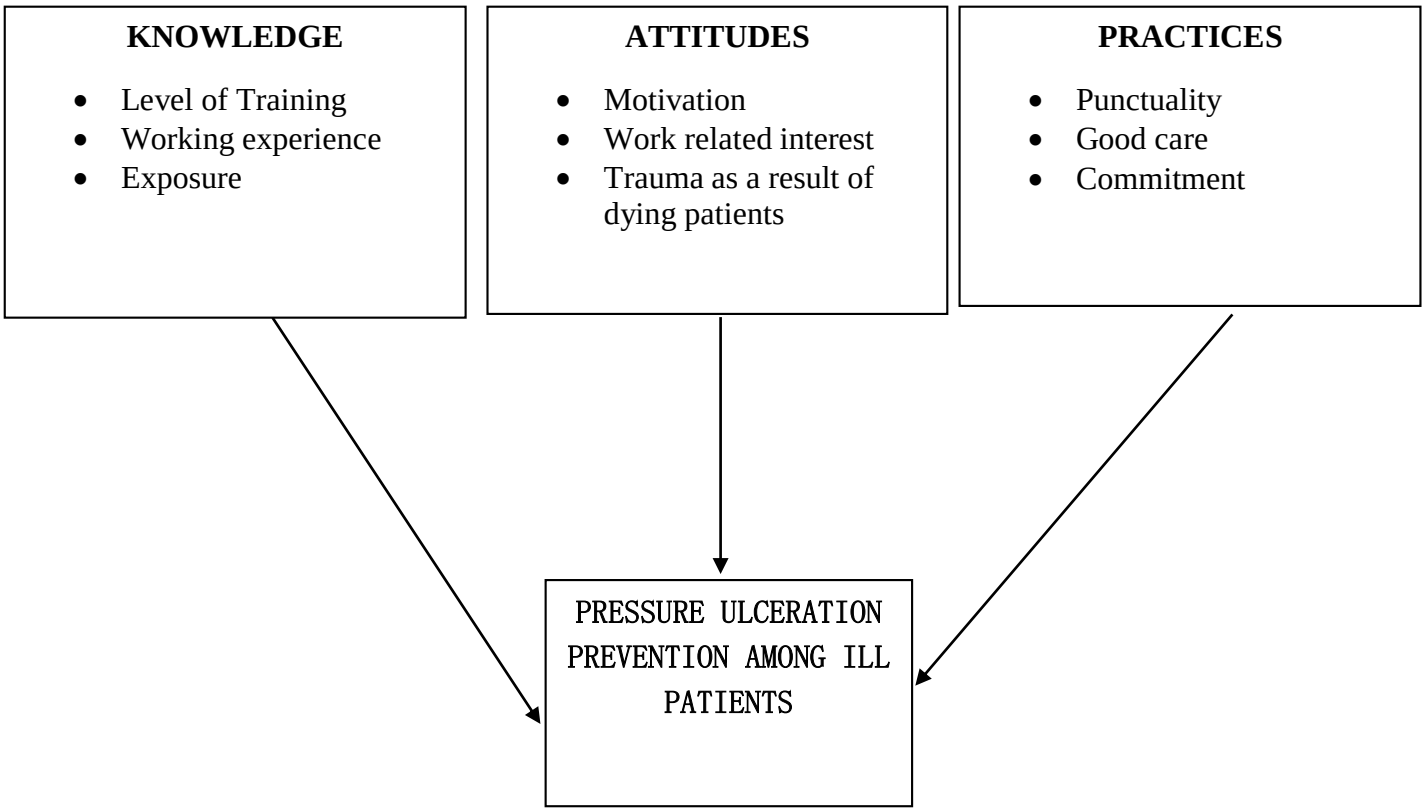
1.6 Justification of the study.

Early recognition of patients that are at risk of developing pressure ulcers by nurses is an essential part of preventive care; the finding from this study may identify the existing knowledge, attitude and practice gaps regarding prevention of PU on critically ill patients thus contributing to the availability of and access to information about prevention of PU on critically ill patients.

The study may also help in planning management of critically ill patients as it may assist the Hospital health planners to identify the potential areas where emphasis is needed and develop national policy to enhance prevention of PU.

The study is also in partial fulfillment of the requirements for the award of a Bachelor's degree in Nursing Science.

1.7 Conceptual Framework



Developed by the researcher

The narrative of the conceptual framework

As illustrated in the diagram above, many inter-related determinants are associated with pressure ulceration prevention among ill patients by nurses at Mulago National Referral Hospital, Uganda. The independent variables are: Knowledge (Level of training, working experience, and exposure); Attitude (Motivation, work related interest and trauma as a result of dying patients) and Practices (Punctuality, good care for patients and Commitment towards service). The dependent variable is pressure ulceration prevention among ill patients.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents existing literature from other researchers with acknowledgement to the authors and text from other sources on Knowledge, attitude and practices of nurses towards pressure ulcer prevention (PUP) among critically ill patients. Literature review helps the researcher to facilitate discussion, anaysis and interpretation of the study findings, (Polit and Beck, 2014).

2.1 Knowledge of nurses towards pressure ulcer prevention in critically ill patients

Oseni, et al., (2018) in Nigeria carried out a study to establish the knowledge, attitude and practice of pressure ulcers prevention among nurses in a teaching hospital. This study revealed that nurses had relatively good knowledge towards PUP and they were aware of the current PUP practices. Majority were also knowledgeable about the various risk/predisposing factors to PU namely; poor nutritional status of the patient, medical condition of the patient, insufficient nursing care, poor family support and all the above factors. Showing that nurses have good knowledge on current PUP practices though there existed a need for knowledge enhancement through training.

Similarly, Ingwu et al., (2015) did a similar study in six public hospitals in Addis Ababa - Ethiopia, the results from their study however revealed an overall moderate level of nurses' knowledge about PUP (63, 85%). They found that knowledge among participants was high in some aspects of PUP such as PU development risk factors. However, participants had low score in other aspect of knowledge such as PU staging, assessment and management of PU. These also highlighted a knowledge gap in the mentioned areas raising need for further training.

Contrary to the above findings, Mwebaza et al., (2014) while investigating Nurses's Knowledge, Practices, and Barriers in Care of Patients with PUs in a Ugandan Teaching

Hospital. The findings showed that nurses had average knowledge on PUP did not know that PU developed in stages or whether PU could lead to permanent disabilities like bone destruction. On the other hand, (Nasreen et al., 2017), showed Nurses overall knowledge at only 8.3% having good knowledge, with 11.1% having fair knowledge and 80.6% having poor knowledge about PUP.

For example, in Nigeria, a non-experimental cross sectional descriptive survey by Uba et al., (2015), revealed a significant association between the nurses' level of education and their knowledge. Indicating that improving the knowledge of nurses towards PUP will help reduce mortality and morbidity caused by Pressure ulcers.

A study done in Bangladesh by Islam et al., (2015) revealed similar findings. The level of nurses' knowledge regarding PUP was at a very low level. Similarly, Igwu et al (2015) found a strong association between nurses' knowledge and their level of education and working experience. Whereby, those with diploma were less knowledgeable than those with degree in Nursing. Again the more nurses were experienced the more they were knowledgeable about PUP. (Ingwu et al., 2015).

2.3 Attitude of nurses towards pressure ulcer prevention (PUP) in critically ill patients

Attitude towards care of patients in hospital plays a major role in alleviating suffering of most patients Ajzen (2015) theory of planned behavior states that a person's behavior is impacted by the intention to perform that behavior, the latter resulting from attitudes, where attitude is the predictor of intention. Considering the present study problem, it could be assumed that nurses with a more positive attitude towards PUP will provide preventive care adequately, and those with a negative attitude would be expected to be less likely to maintain an appropriate standard of care. Another study done in Belgium found that, (Demarre et al., 2015) a more positive attitude was a significant predictor of PUP compliance with the guidelines provided. Generally an extant body of literature indicates that most nurses have good

attitude towards PUP. A research done by Dilie and Mengistu (2015) in Addis Ababa government hospital, Ethiopia showed that 68.4% of participants had favorable attitudes towards PUP. Accordingly, Sharifuet et al., (2015) in Bangladesh also found that the nurses attitudes about PUP was moderate. Relatedly, A positive attitude was reported among oncology nurses concerning PUP when they were assessed on their Beliefs, attitudes, perceived barriers towards PUP by (Hamdan, Javison, Tamani, Sashidharan, Yahya, et al., 2018). Another study conducted in Jordan in 2015 showed that the nurses they had an overall positive attitude towards PUP by perceiving that all patient are at risk for developing PU; continuous nursing assessment of patients would give an accurate account of their PU risk; most PUs could be avoided and that they should be concerned with PUP during their practice. The same research findings also revealed that the more a nurse had many years of working the more his/her attitude was positive. Nurses now also understand that prevention of PU is better than its cure. For example, Oseni et al (2018) showed that 194 (77.91%) of the nurses in their study disagreed that treatment of PU is of greater priority than its prevention.

On contrary however, as showed by results from a study by Etafa,Argaw, Gemechu and Melese (2018) a growing body of literature still indicates that attitude towards PUP among nurses is poor. Most nurses do not care for very ill patients leading to pressure ulcers because they do not want to associate with dirty procedures.

2.4 Practices of nurses towards pressure ulcer prevention (PUP) in critically ill patients

Pressure ulcer preventive practices are summarized in five main preventive activities according to the European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel (2014). This include: skin assessment, risk assessment, skin care, nutritional support, mechanical load management and health education to all parties involved in the prevention of PU development which in many hospitals especially in the least developed countries are not followed.

In relation to above, Eskimez et al., (2016) while examining Knowledge of Nurses Working in Intensive Care Units (ICU) in Relation to Preventive Interventions for Pressure Ulcer found that on preventive interventions for PU, Risk Assessment was done by 75%; assessment of the Skin was done by72.9%; 56.9 % mentioned Positioning and Movements; 85.9% stated Regulating Nutrition; 55.4% said use of Support Surfaces while an overwhelming majority gave 98.6% Education and almost all (99.3%) suggesting Keeping Records as interventions for PUP. These shows there was very good practices towards PUP and yet extant literature still shows rising cases of pressure ulcers among critically ill patients with debilitating and fatal effects.

In Uganda, nurses' practice towards PU patients was not any better. Nurses had no formal assessment tool on any ward. Pressure relieving devices were only used on neurology. Some devices were also found on the medical wards but were not in use. The investigators found no nursing documentation of PU management in patient records. In addition, Nurse's practices toward PUP were not reliable because nurses prioritized it very low level that is because of their inadequate knowledge about the serious consequence of pressure ulcer complications. They had no access and up to date knowledge of evidence base practices (Mwebaza, et al, 2014). Synonymously, Nasreen et al., (2017) showed that majority of nurses (82.6%) had poor practices, with just 7.1% having fair practices and only 10.3% had good practices of PUP.

Inadequate nurses' knowledge and practice on pressure ulcer prevention have also been confirmed by Nuru et al, (2015) in their study in Ethiopia. They found that nurses' dissatisfaction with nurses' leadership, insufficient equipment, and limited number of nursing staff strongly impeded the practices of PU prevention (Nuru et al., 2015).

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter outlines the methods that were used in the study. The sub topics covered here included; research design, setting of the study, study population, inclusion criteria, sample size determination, sampling procedure, definition of variables, research instrument, data collection procedure, data management, data analysis, ethical consideration, limitation of the study and dissemination of the results.

3.2 Description of study design

This study adopted a descriptive cross sectional study design and use a quantitative methods of data collection. The study design enabled the researcher to get information from respondents in Mulago Hospital Kampala Uganda to collect data on the demographic variables.

3.3 Study Setting

The study was conducted at Mulago national referral hospital in Kampala District. The study area was selected because the researcher noticed a problem in prevention and management practices and attitudes in Nurses towards pressure Ulcers.

3.4 Study population

The study population comprised of nurses working in Mulago Hospital regardless of qualification. a from certificates to masters level.

3.4.1 Sample size determination

The sample size was 50 respondents as determined by the Morgan table (Attached to Appendix). And these were Nurses working in Mulago hospital mainly in the wards of critically patients.

Krejcie, Robert V., Morgan, Daryle W., “Determining Sample Size for Research Activities”, Educational and Psychological Measurement, 1970.

3.4.2 Sample procedure

A convenient sampling technique was used sampling respondents during data collection. Convenience sampling procedure is a statistical method of drawing representative data by selecting respondents because easy access during data collection.

3.4.3 Inclusion criteria

The study included nurses both male and female that have a working experience of at least three (03) years who were on duty in the hospital by the time of data collection and who gave verbal consent.

3.5 Definition of variables

Independent variables:

These are those characteristics which cannot not be influenced or varied. According to my study they are; Knowledge, attitude and practices of Nurses towards pressure ulcer prevention.

Dependent Variable:

These are variables which can vary or be influenced by other factors and in this study, it will be Pressure Ulcer Prevention and efforts to prevent or reduce the severity of pressure ulcers before they occurs.

3.6 Research Instruments

The researcher used a self-administered questionnaire as an instrument for data collection consisting of close ended questions written in English. The questionnaire was used to collect data related to Knowledge attitude and practices of nurses towards pressure ulcer prevention in critically ill patients among nurses working in Mulago National Referral Hospital.

3.7 Data collection procedures

The researcher finalized with pre requirements of seeking permission from Mulago hospital were the researcher found potential respondents. Letter of introduction from King Ceasor University introducing the researcher to the Executive Director of Mulago National Hospital, who availed the researcher with an acceptance letter and the researcher showed it to the ward managers who allowed her to enter the wards conveniently. The researcher then presented the questionnaire among nurses a day before data collection, since it was simple for the researcher to collect data alone. The researcher then scheduled 3 days to collect data according to the shifts of the nurses' duties. This was from one until all the fifty (50) respondents were covered. Three respondents were interviewed every day for 10 working days.

3.7.1 Data management

Data collection was done at Mulago Hospital, field editing was also done before leaving the area. All questionnaires were retrieved from the respondents after completion and checked for completeness. The backup storage of data was stored on a flash disc.

3.7.2 Data analysis

Data analysis was first be done manually by use of papers and pen through, coding, tallying, editing and tabulation. The data was then entered manually into the computer using Microsoft excel word. The soft copy of data was exported and analyzed under statistical package for social sciences (SPSS) version 2010 for presentation in form of a tablets and figures.

3.8 Ethical Considerations

After the approval of the proposal by the supervisor, it was presented to King Ceaser University for approval. An introductory letter from the principle. And present it to Mulago Hospital. Before data collection the study purpose was explained and consent from the

respondents was sought. Data collection was done in private and comfortable places in each participating area of the facility.

3.9 Limitations of the study

During the course of the study, the researcher was bound to encounter the following limitations;

Time; a short period of time. However, this problem was solved by proper budgeting of time and early arrival at the Hospital.

3.10 Dissemination of the results

The four [4] copies of the approved research report will be disseminated to:

- King Ceaser University.
- Mulago National Referral Hospital.
- The researcher will also retain a copy for ownership and future reference.

CHAPTER FOUR: RESULTS

4.0 Introduction

This chapter presents findings from the study entitled “Knowledge, Attitudes and Practices on pressure ulcer prevention in critically ill patients among Nurses at Mulago National Referral Hospital, Kawempe division, Kampala district.” The study objectives were to determine the Knowledge, Attitudes and Practices on pressure ulcer prevention in critically ill patients among Nurses at Mulago National Referral Hospital, Kawempe division, Kampala district.” The results are presented in text, frequencies, and percentages in tables and figures.

4.1 Socio-demographic factors

Background information of the respondents includes: Gender, age, level of formal education, occupation, religion, and health condition.

4.2 Knowledge

Knowledge of nurses towards prevention of pressure ulcers in critically ill patients includes knowing how they should communicate to patients and making sure they have understood them. This also includes knowing the causes of pressure ulcers and recommended procedures of how to minimize or prevent their occurrence.

4.3 Attitudes

Attitudes of nurses towards the prevention of pressure ulcers in critically ill patients which includes: How they think about the causes, importance and how they think about how to help them out.

4.4 Practices

Practices of nurses towards the prevention of pressure ulcers in critically ill patients which includes: How they respond to the causes by enhancing prevention or treatment procedures to help them out.

Table 1: Background information of the respondents

Characteristics	Frequency (n=50)	Percentage (%)
Gender		
Male	12	24
Female	38	76
Working Experience		
1-5 years	12	24
6-10 years	24	48
More than 10 years	14	28
Level of Training		
Certificate in nursing	16	32
Diploma in nursing	29	58
Bachelors degree in nursing	3	6
Masters degree in nursing	2	4
Total	**50**	**100**

According to table 1 above:

The majority of respondents 38 (76%) were female and 12 (24%) were male.

Results on working experience revealed that majority 24 (48%) had worked for 6-10 years, followed by 14 (28%) who had worked for more than 10 years, while the minority 12 (24%) had worked for 1-5 years.

Results showed that majority 29 (58%) had attained diploma training in nursing, followed by 16 (32%) who were certificate level, while 3 (6%) had attained bachelors' degrees in nursing and minority 2 (4) had Masters Degrees.

n= (50)

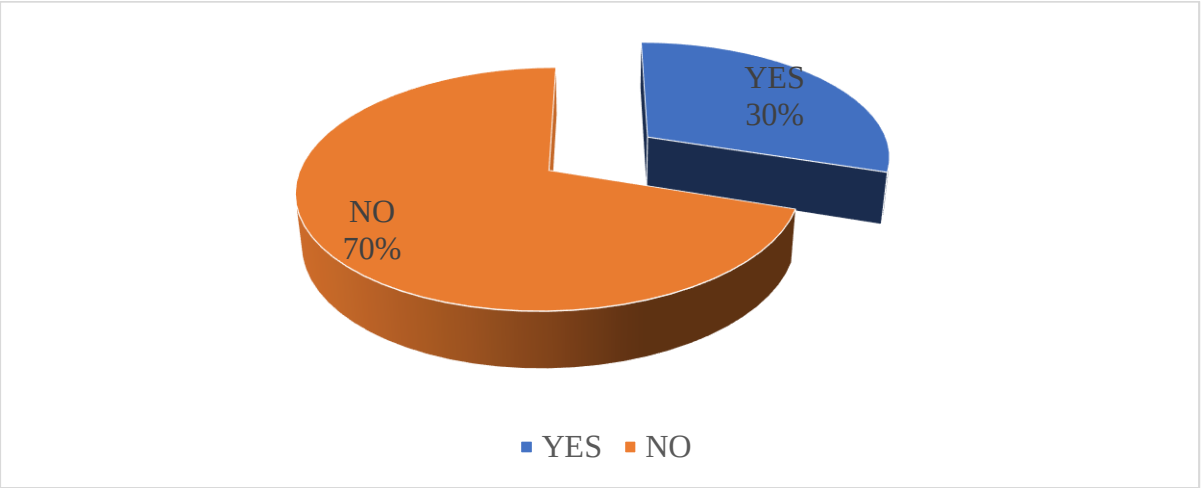


Figure 1: Shows respondents with specialized training in the prevention and management of pressure ulcers.

Results show that most respondents 35 (70%) did not have specialized training in the prevention and management of PU apart from the basics during their formal training, while the minority 15 (30%) had got the training. *This was attributed to the scarcity of financial resources to facilitate the training.*

In conclusion therefore, more than three quarters of the participants 76% were female, about half 48% had a working experience of 6-10 years and more than half 58% were diploma holders in nursing. Findings further revealed that 70% of the study participants did not have specialized training in the prevention and management of PU. However most studies have indicated that basic rather than specialized training in the prevention and management of PU was adequate for interventions and it was crucial to have a good attitude towards the procedure.

SECTION B: Knowledge of Nurses towards prevention of pressure ulcers in critically ill patients at Mulago National Referral Hospital.

Table 2: Distribution of respondents according to their level of knowledge about prevention of pressure ulcers.

n=(50)

Knowledge on prevention and management of PU	**Frequency**	**Percentage**
Most participants stated that pressure ulcers were sores developed by critically ill patients as a result of lying in one position for a long time, and also being burnt by urine and other extracts.	38	76
All participants stated that they had treated pressure ulcers which were sores developed on the buttocks , elbow , heels of the foot and at the back of the head, scapule in critically ill patients	50	100
All participants stated that the causes of pressure ulcers were sores developed by critically ill patients as a result of lying in one position for a long time , and also being burnt by urea contained in urine and poor bed making	50	100
Most participants stated that the risk of preventing pressure ulcers developed in critically ill patients include lack of family attendant to turn these patients in bed or inadequate knowledge among them, and work over load for staff Nurses	38	76
Total	**50**	**100**

Results from table 2 show that:

Most respondents 38 (76%) stated that pressure ulcers were sores developed in critically ill patients as a result of lying in one position for a long time without turn them and also being burnt by urine and poor bed making.

Findings show that all participants 50 (100%) stated that they had treated pressure ulcers which were sores developed on the buttocks, heel of the foot, elbows , at the back of the head (occiput) in critically ill patients.

Results show that all participants 50 (100%) stated that the causes of pressure ulcers were sores developed in critically ill patients as a result of lying in one position for a long time, no turning in bed and also being burnt by urea and bed cruises (poor bed making).

Findings suggest that most participants 38 (76%) stated that the risk of preventing pressure ulcers developed in critically ill patients include lack of family attendants turn patients in bed two hourly or inadequate knowledge among them, and work over load for Nursing staffs

n= (50)

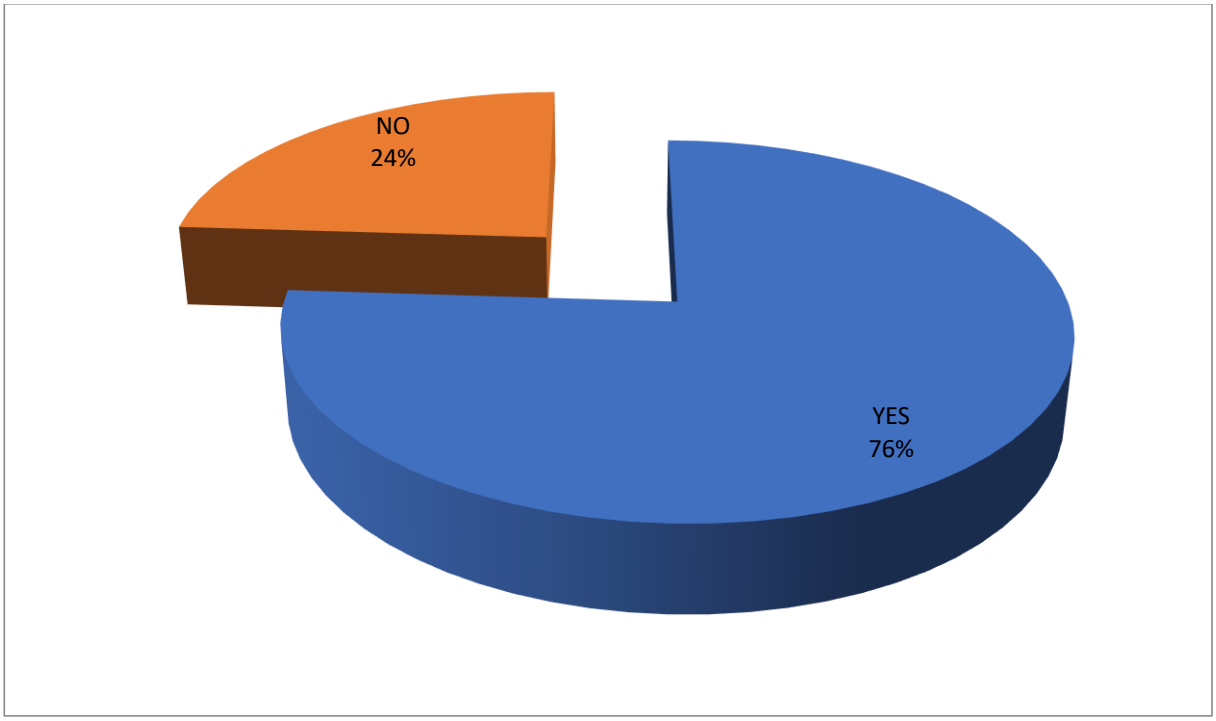


Figure 2: knowledge on how to detect pressure ulcers

Results from figure 2 show that most respondents 38 (76%) knew how to detect pressure ulcers in critically ill patients, while 12 (24%) did not.

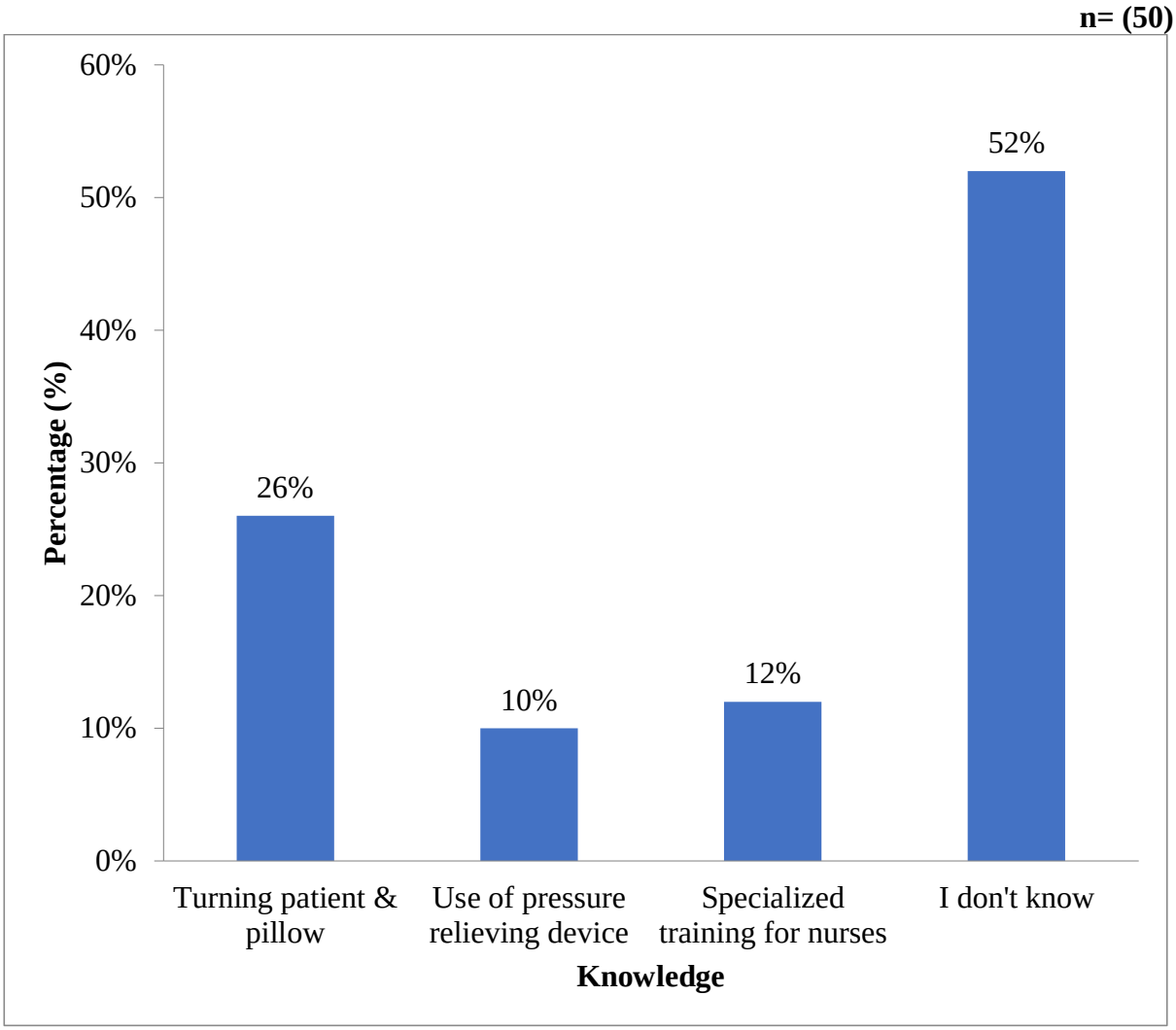


Figure 3: Shows respondent's knowledge on how a nurse should prevent pressure ulcers.

Results from figure 2 show that:

Most respondents 26 (52%) did not know how nurses should prevent pressure sores, while 12 (26%) knew that it involves turning patient and pillow, while 6 (12%) suggested specialized training for nurses and 5 (10%) said use of pressure relieving device.

n= (50)

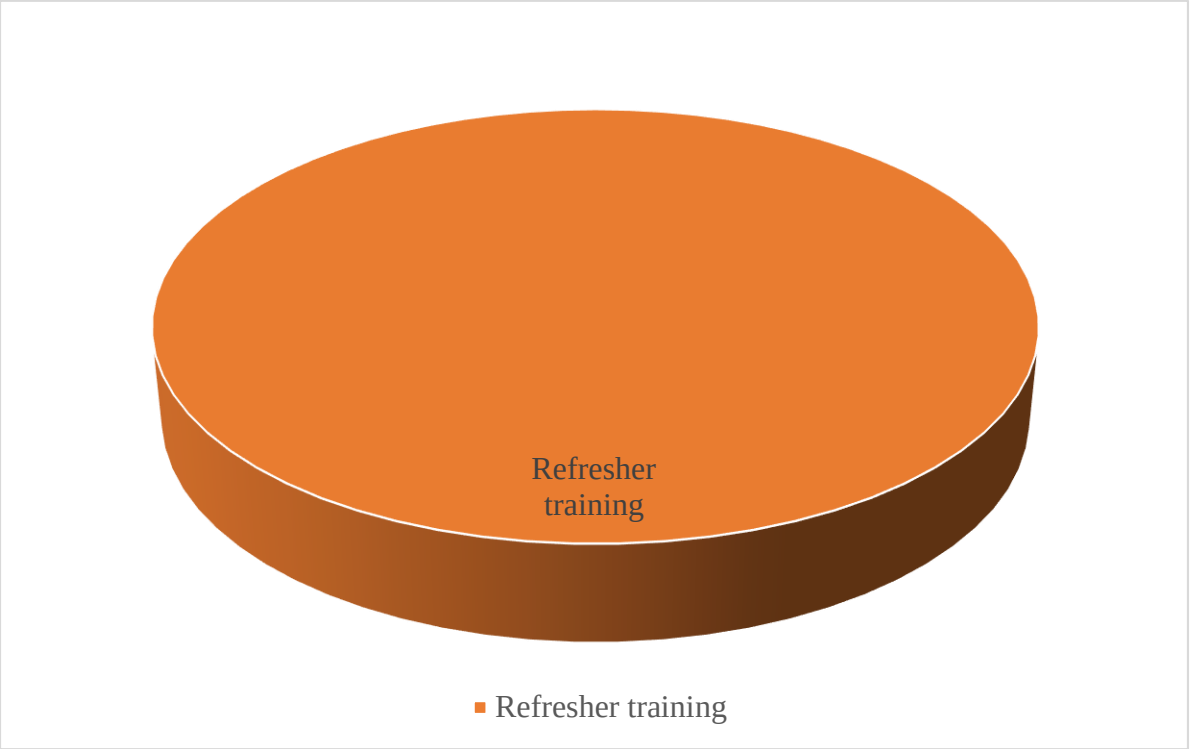


Figure 4: Shows respondent's suggestion towards knowledge improvement on pressure ulcer prevention among nurses.

All respondents 50 (100%) suggested specialized training for nurses in the use of pressure relieving device and other components of pressure ulcer prevention and management among critically ill patients.

In conclusion therefore, about half 48% of the participants had basic knowledge towards of pressure ulcer prevention and management among critically ill patients. Only 15 (30%) had got the training and this was attributed to the scarcity of financial resources to facilitate the training. This suggested that there was a significant gap which needs to be addressed.

SECTION C: Attitudes of Nurses towards prevention of pressure ulcers among critically ill patients at Mulago National Referral Hospital.

Table 3: Distribution of respondents according to their attitudes about prevention of pressure ulcers.

n= (50)

Attitudes on prevention and management of PU	**YES**	**NO**	**Not sure**
All patients are at potential risk of developing pressure ulcers	8	36	6
Pressure ulcer prevention is time consuming for me to carry out	10	32	8
In my opinion patients tend not to get as many pressure ulcers nowadays	6	42	2
I do not need to concern myself with pressure ulcer prevention in my practice	4	36	10
Pressure ulcer treatment is a greater priority than pressure ulcer prevention	4	36	10
Continuous nursing assessment of patients will give an accurate account of their pressure ulcer risk	34	4	12
Most pressure ulcers can be avoided	24	6	20
Pressure ulcers are smelly and difficult to treat	12	26	12
I am less interested in pressure ulcer prevention than other aspects of nursing	6	32	12
My clinical judgment is better than any pressure ulcer risk assessment tool available to me	38	4	8
In comparison with other areas of nursing care, pressure ulcer prevention is a law for me	38	8	4
Pressure ulcer risk assessment should be regularly carried out on all patients during their stay in hospital	40	4	6

Results from table 3 show that:

Most respondents 36 (72%) stated that all patients are not at potential risk of developing pressure ulcers.

Findings show that most participants 32 (64%) stated that pressure ulcer prevention was not time consuming for me to carry out.

Results show that all participants 42 (84%) stated that in their opinion patients were less likely to get as many pressure ulcers nowadays.

Most respondents 36 (72%) stated that they need to concern themselves with pressure ulcer prevention in their practice.

Most respondents 36 (72%) stated that pressure ulcer treatment was not a greater priority than pressure ulcer prevention.

Majority of participants 34 (68%) stated that continuous nursing assessment of patients will give an accurate account of their pressure ulcer risk

Majority of participants 24 (48%) stated that most pressure ulcers can be avoided.

Most respondents 26 (52%) stated that pressure ulcers are not smelly and difficult to treat.

Findings show that most participants 32 (64%) stated that they were not less interested in pressure ulcer prevention than other aspects of nursing.

Most respondents 38 (76%) stated that their clinical judgment is better than any pressure ulcer risk assessment tool available to them.

Most respondents 38 (76%) stated that in comparison with other areas of nursing care, pressure ulcer prevention is a law for them.

Majority of participants 40 (80%) stated that pressure ulcer risk assessment should be regularly carried out on all patients during their stay in hospital.

In conclusion therefore, about half 48% of the participants had a good attitude towards pressure ulcer prevention and management among critically ill patients and about the same number had

adequate knowledge towards the procedures. This suggested that there was a correlation between knowledge and attitude towards pressure ulcer prevention and management among critically ill patients. However the number with inadequate knowledge 30% poses a significant gap which needs to be addressed.

SECTION D: Practices of Nurses towards prevention of pressure ulcers in critically ill patient

n= (50)

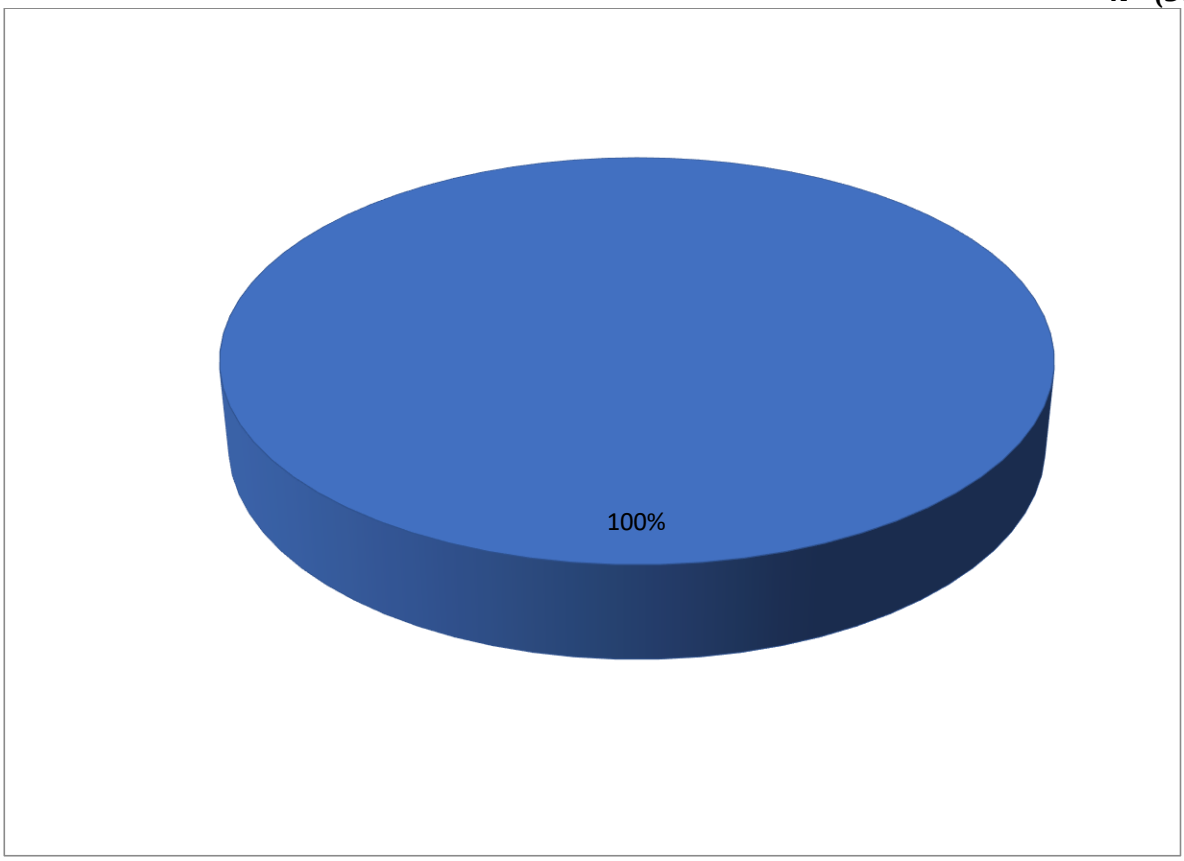


Figure 5: Distribution of respondents according to their practices in relation to prevention of pressure ulcers.

All respondents 50 (100%) said they continuously assessed all patients at risk of pressure sores.

n= (50)

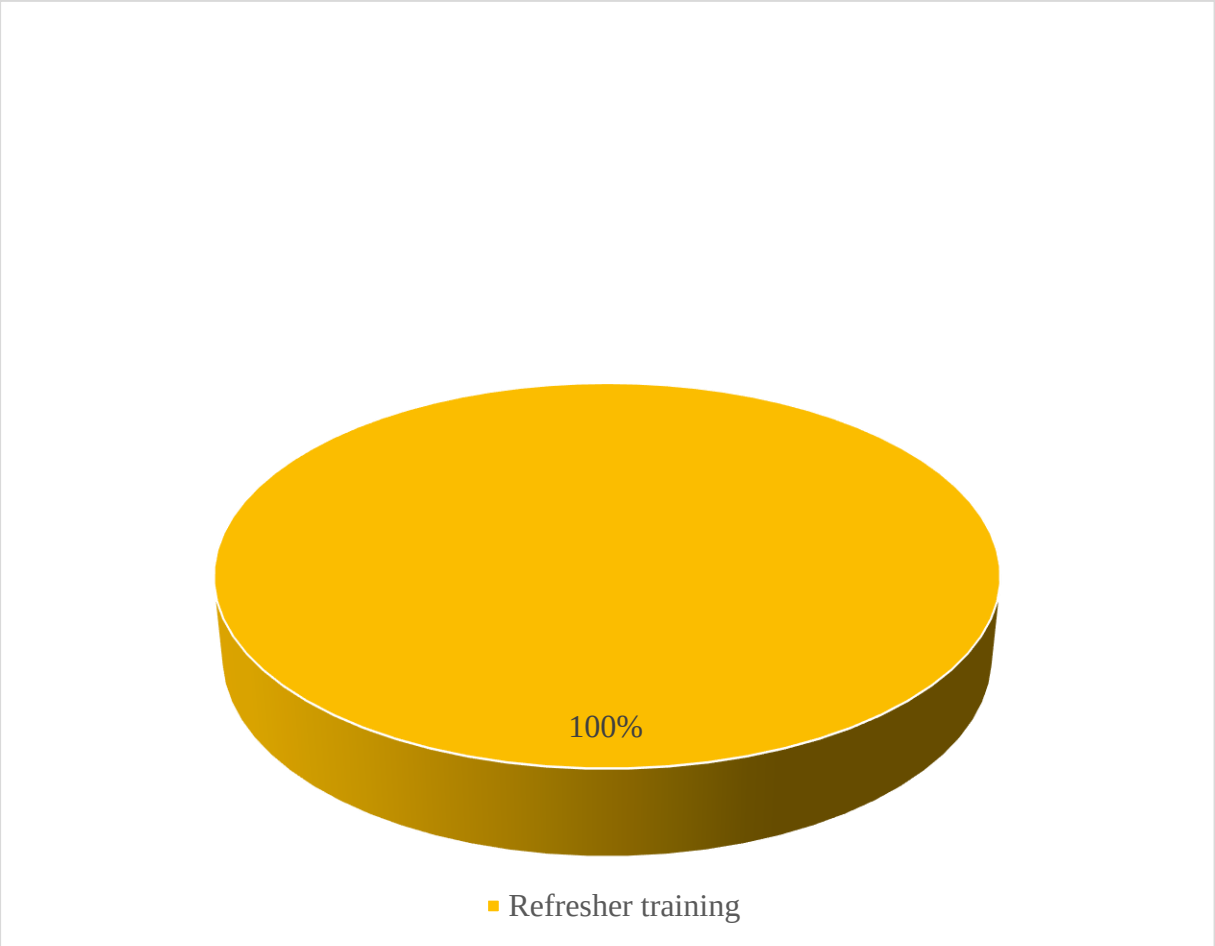


Figure 6: Shows respondent's response on the frequency of assessment of pressure ulcers for the prevention among critically ill patients.

All respondents 50 (100%) said they continuously assessed all patients at risk of pressure sores on daily basis.

n= (50)

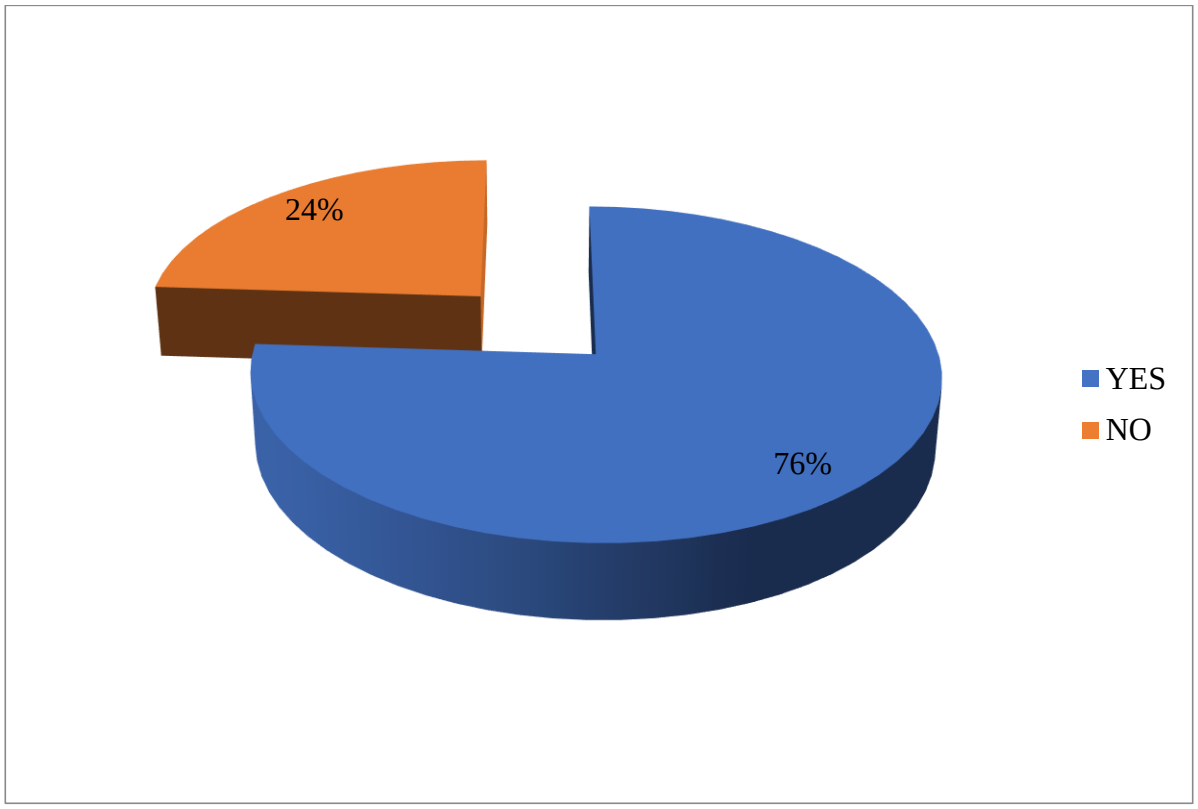


Figure 7: Shows respondent's response on the use of pressure relieving devices on the prevention of bed sore ulcers among critically ill patients.

Results from figure 7 show that:

Most respondents 38 (76%) used pressure relieving devices to control pressure ulcers among terminally ill patients. *All the 76% used pillows. They also said they assisted patients to move and the frequency was three hourly on daily basis.*

The factors affecting prevention of pressure ulcers among critically ill patients in this hospital include: Inadequate knowledge of nurses and attendants, poor attitude of nurses and attendants, poor practices of nurses and attendants and inadequate supplies.

In conclusion therefore, despite about half 48% of the participants having adequate knowledge towards pressure ulcer prevention and management among critically ill patients and about the same number having a good attitude towards management procedures. This suggested that there was a correlation between knowledge and attitude towards pressure ulcer prevention and

management among critically ill patients. However the number with inappropriate practices towards PU care of the patients 30%, poses a significant gap which needs to be addressed. This is compounded by inadequate knowledge of nurses and attendants, poor attitude of nurses and attendants, poor practices of nurses and attendants and inadequate supplies.

Knowledge, Practices, and Barriers in Care of Patients with PUs in a Ugandan Teaching Hospitals. The findings showed that nurses had average knowledge on PUP did not know that PU developed in stages or whether PU could lead to permanent disabilities like bone destruction.

CHAPTER 5: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction.

This chapter presents the discussion of results about Knowledge of nurses towards pressure ulcer prevention in critically ill patients in Mulago National Referral Hospital, Kampala district. It discusses the results according to the study objectives; their relationship with other studies done, controversies and similarities with other studies and further presents the conclusion and the recommendations drawn.

5.1 Discussion of the demographic characteristics

Results indicate that, more than three quarters of the participants 76% were female, about half 48% had a working experience of 6-10 years and more than half 58% were diploma holders in nursing. Findings further revealed that 70% of the study participants did not have specialized training in the prevention and management of PU. However most studies have indicated that apart from higher levels of nursing education, specialized training for lower nursing cadres in the prevention and management of PU as well as long working experience was adequate for appropriate interventions and it was crucial to have a good attitude towards the procedures on top of knowledge. This was similar to a study done in Nigeria, where a non-experimental cross sectional descriptive survey by Uba et al., (2015), revealed a significant association between the nurses' level of education and their knowledge. Indicating that improving the knowledge of nurses towards PUP will help reduce mortality and morbidity caused by Pressure ulcers.

Additionally a study done in Bangladesh by Islam et al., (2015) revealed similar findings. The level of nurses' knowledge regarding PUP was at a very low level. Similarly, Igwu et al (2015) found a strong association between nurses' knowledge and their level of education and working experience. Whereby, those with diploma were less knowledgeable than those with degree in Nursing. However the study found that the more experienced nurses were the more

they were likely to be knowledgeable about PUP. Hence there was a significant co-relation between formal education and experience towards adequate knowledge in managing critically ill patients against the condition of pressure ulcers (Ingwu et al., 2015).

5.1.1 Knowledge of Nurses towards prevention of pressure ulcers among critically ill patients at Mulago National Referral Hospital.

Study findings found that, about half 48% of the participants had basic knowledge towards of pressure ulcer prevention and management among critically ill patients. Only 15 (30%) had got the training and this was attributed to the scarcity of financial resources to facilitate the training. This suggested that there was a significant gap which needs to be addressed. This was in agreement with a study by Oseni, et al., (2018) in Nigeria carried out to establish the knowledge, attitudes and practices of nurses towards pressure ulcer prevention among critically ill patients in a teaching hospital which revealed that 43% of the nurses had relatively good knowledge towards PUP and they were aware of the current PUP practices. Majority were also knowledgeable about the various risk/predisposing factors to PU namely; poor nutritional status of the patient, medical condition of the patient, insufficient nursing care, poor family support and all the above factors. Showing that nurses have good knowledge on current PUP practices though, there existed a need for knowledge enhancement through specialized training.

Contrary to the above findings, Mwebaza et al., (2014) while investigating Nurses's Knowledge, Practices, and Barriers in Care of Patients with PUs in a Ugandan Teaching Hospitals. The findings showed that nurses had average knowledge on PUP did not know that PU developed in stages or whether PU could lead to permanent disabilities like bone destruction. On the other hand, (Nasreen et al., 2017), showed Nurses overall knowledge at only 8.3% having good knowledge, with 11.1% having fair knowledge and 80.6% having poor knowledge about PUP.

The study therefore found that the levels of inadequate knowledge was about 30% and therefore calls for intervention. Apart from obtaining working experience on job, refresher training was critically important towards the management of critically ill patients against the condition of pressure ulcers

5.1.2 Attitudes of Nurses towards prevention of pressure ulcers in critically ill patients at Mulago National Referral Hospital.

The study shows that, about half 48% of the participants had a good attitude towards pressure ulcer prevention and management among critically ill patients and about the same number had adequate knowledge towards the procedures. While about 33% had negative attitudes towards providing PU care. This suggested that there was a correlation between knowledge and attitude towards pressure ulcer prevention and management among critically ill patients. However the number with inadequate knowledge 30% poses a significant gap which needs to be addressed.

This was similar to a study done by Ajzen (2015), which states that attitude towards care of patients in hospital plays a major role in alleviating suffering of most patients theory of planned behavior states that a person's behavior is impacted by the intention to perform that behavior, the latter resulting from attitudes, where attitude is the predictor of intention. Considering the present study problem, it could be assumed that nurses with a more positive attitude and knowledge towards PUP will provide preventive care adequately, and those with a negative attitude would be expected to be less likely to maintain an appropriate standard of care, despite being knowledgeable.

On contrary however, results from a study by Etafa,Argaw, Gemechu and Melese (2018) show that a growing body of literature still indicates that attitude towards PUP among nurses is poor. Most nurses do not care for very ill patients leading to pressure ulcers because they do not want to associate with dirty procedures.

The study therefore found that about 33% had negative attitudes towards providing PU care and therefore calls for intervention. Regular support supervision and mentoring by senior nurses was a crucial aspect towards the management of critically ill patients against the condition of pressure ulcers

5.1.3 Practices of Nurses towards prevention of pressure ulcers in critically ill patient

Results show that, despite about half 48% of the participants having adequate knowledge towards pressure ulcer prevention and management among critically ill patients and about the same number having a good attitude towards management procedures. This suggested that there was a correlation between knowledge and attitude towards pressure ulcer prevention and management among critically ill patients. However the number with inappropriate practices towards PU care of the patients 30% poses a significant gap which needs to be addressed. This is compounded by inadequate knowledge and number of nurses and attendants, poor attitude of nurses and attendants, poor practices of nurses and attendants and lack of appropriate equipment as well as inadequate supplies.

This is supported by other studies done elsewhere in Uganda, which reveal that nurses' practice towards PU patients was not any better. Nurses had no formal assessment tool on any ward. Pressure relieving devices were only used on neurology. Some devices were also found on the medical wards but were not in use. The investigators found no nursing documentation of PU management in patient records. In addition, Nurse's practices toward PUP were not reliable because nurses prioritized it very low level that is because of their inadequate knowledge about the serious consequence of pressure ulcer complications. They had no access and up to date knowledge of evidence base practices (Mwebaza, et al, 2014). Synonymously, Nasreen et al., (2017) showed that majority of nurses (82.6%) had poor practices, with just 7.1% having fair practices and only 10.3% had good practices of PUP.

Another study states that inadequate nurses' knowledge and practice on pressure ulcer prevention have also been confirmed by Nuru et al, (2015) in their study in Ethiopia. They found that nurses' dissatisfaction with nurses' leadership, insufficient equipment and supplies as well as limited number of nursing staff strongly impeded the practices of PU prevention (Nuru et al., 2015).

The study therefore found that the levels of inadequate practices was about 30% and therefore calls for intervention. Regular support supervision and mentoring by senior nurses was likely to improve the knowledge, attitudes and practices of young inexperienced nurses towards the management of critically ill patients against the condition of pressure ulcers which will in turn bring about improved health service delivery.

5.2 Conclusions

The study therefore found that the levels of inadequate knowledge was about 30% and therefore calls for intervention.

The study therefore found that about 33% had negative attitudes towards providing PU care and therefore calls for intervention.

The study therefore found that the levels of inadequate practices was about 30% and therefore calls for intervention.

5.3 Recommendations

All nurses working on wards with critically ill patients should undergo specialized training and regular support supervision in Pressure Ulcer prevention and management. The nurses in turn should educate the patients attendants on how to prevent PU.

All nurses working on wards with critically ill patients should undergo counseling on attitude and support supervision towards Pressure Ulcer prevention and management.

The health facility should adequately provide appropriate equipment, supplies and human resource.

5.4 Implications to the nursing practice:

Knowledge, Attitudes and Practices, in care of critically ill patients with PUs in Hospitals is a critical component of health care. Intervention by hospital management for improvement is crucial and if not done PU could lead to permanent disabilities like bone, blood vessel, muscle and other tissue infection and destruction.

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APPENDICES

Appendix I: Consent Form

Topic: Knowledge, Attitudes and Practices on pressure ulcer prevention in critically ill patients at Mulago Hospital, Uganda

Dear Respondent

I am **KIRABO VIOLET VICKY** a student from King Ceasor University pursuing a Bachelors of Nursing. I am conducting a study on the above mentioned topic. The purpose of the study is to assess Knowledge, Attitudes and Practices on pressure ulcer prevention in critically ill patients at Mulago Hospital, Uganda, Kampala district. There are no risks associated with your participation in this study and in addition, no monetary benefits are gained from participating in this study.

You are therefore requested to participate in this study by responding to the questions contained in the questionnaire. The information gathered from this study will purely be used for academic purposes, though to some extent some stakeholders striving to formulate and develop appropriate evidence based nursing strategies/interventions to improve prevention of Pressure Ulcers among critically ill patients was provided with a copy of the final booklet. However, your identity will not be published in this work.

It should be noted that, you are free to withdraw from participating in this study at any time you feel uncomfortable to continue without any penalty.

Written Consent: I have read and understood information in this consent form and all conditions therein and I agree to participate in the study.

Name	Signature/Thumb print	Date
…….	…….	…….

Researcher's signature …….. **Date: ……..**

Appendix II: Questionnaires

TOPIC: KNOWLEDGE, ATTITUDE AND PRACTICES OF NURSES TOWARDS PREVENTION OF PRESSURE ULCERS AT MULAGO NATIONAL REFERRAL HOSPITAL ON CRITICALLY ILL PATIENTS

Instructions;

- Please respond to all questions asked.
- Please answer as accurately as possible to enhance data quality.
- Tick the most appropriate answer in the box or write in the space provided below.

SECTION A: Social demographic characteristics of respondents

1. Gender

a. Male ☐

b. Female ☐

2. Years of experience

a. 3 - 5 years. ☐

b. 6 - 10 years. ☐

c. More than 10 years. ☐

3. Level of qualification.

a. Certificate in Nursing ☐

b. Diploma in Nursing ☐

c. Double trained ☐

d. Bachelor's in Nursing ☐

4. Any other training attended related to Prevention/Management of PU or in Critical Care.

a. YES ☐

b. NO ☐

If yes, specify …….

SECTION B: What is the knowledge of nurses towards PUP in critically ill patients at Mulago Hospital?

6. For those who have nursed or had a training on pressure ulcer give brief description of two lines what it means.

……

……

7. Mention the areas of pressure ulcer you have ever nursed.

……

……

……

8. For the areas you have nursed, please mention the causes.

……

……

…….....

9. Mention the risk factors to pressure ulcer in this hospital that you can prevent

……

……

……

……

10. Do you know how to assess a critically ill patient for pressure ulcer?

a. YES ☐

b. NO ☐

If yes, which tool is used for assessing pressure ulcers?

……

11. What are some of the preventive strategies of Pressure ulcer that you know?

……

……

……

……

12. Mention appropriate education topics for a patient that has a potential for pressure ulcer development.

……

……

……

SECTION C: What is the attitude of nurses towards PUP in critically ill patients at Mulago Hospital?

S/NO	Variable	YES	NO	Not sure
I.	All patients are at potential risk of developing pressure ulcers			
II.	Pressure ulcer prevention is time consuming for me to carry out			
III.	In my opinion patients tend not to get as many pressure ulcers nowadays			
IV.	I do not need to concern myself with pressure ulcer prevention in my practice			
V.	Pressure ulcer treatment is a greater priority than pressure ulcer prevention			
VI.	Continuous nursing assessment of patients will give an accurate account of their pressure ulcer risk			

VII.	Most pressure ulcers can be avoided			
VIII.	Pressure ulcers are smelly and difficult to treat			
IX.	I am less interested in pressure ulcer prevention than other aspects of nursing			
X.	My clinical judgment is better than any pressure ulcer risk assessment tool available to me			
XI.	In comparison with other areas of nursing care, pressure ulcer prevention is a low for me			
XII.	Pressure ulcer risk assessment should be regularly carried out on all patients during their stay in hospital			

SECTION D: What is the practice of nurses towards PUP in critically ill patients at Mulago Hospital?

13. Do you continuously assess all patients at risk of pressure sores and document findings?

a. Yes ☐
b. No ☐

14. If yes how often do you assess these critically ill patients?

a. Daily ☐
b. Once a week ☐
c. More than once a week ☐
d. Once a month ☐
e. Not at all ☐

15. Do you use pressure relieving services in your ward

a. Yes ☐
b. No ☐

16. If yes tick the type of material indicated down.

a. Foam ☐

b. Pillow ☐

c. Pads ☐

Others (specify) …….

17. Do you always assist patients to move in order to prevent pressure development

a. Yes ☐

b. No ☐

18. If yes mention the frequency ……..

19. How often do you position immobile bed ridden patients in your ward?

a. Two hourly ☐

b. Once day ☐

c. Twice a day ☐

d. Many times ☐

20. In your own opinion generally mention briefly factors affecting prevention of pressure ulcer in this hospital

……

……

……

Appendix III: Approval Letter

TELEPHONE: +256-41554008/1
FAX: +256-414-5325591
E-mail: admin@mulago.or.ug
Website: www.mulago.or.ug

IN ANY CORRESPONDENCE ON THIS
SUBJECT PLEASE QUOTES NO.....

MULAGO NATIONAL REFERRAL HOSPITAL
P. O. Box7051
KAMPALA, UGANDA

3 January 2024.

Ms. Vicky Violet Kirabo
Principal Investigator
King Ceasor University.

Dear Ms. Kirabo,

Re: Approval of Protocol MHREC 2660: "Knowledge Attitudes and Practices on Pressure Ulcer Prevention in Critically Ill Patients among Nurses at Mulago National Referral Hospital, Uganda".

The Mulago Hospital Research and Ethics Committee reviewed your proposal referenced above and granted approval of this study on 3 January 2024. The conduct of this study will therefore run for a period of one (1) year from 3 January 2024 to 2 January 2025.

This approval covers the protocol and the accompanying documents listed below;

- Consent form
- Questionnaire

This approval is subjected to the following conditions:

1. That the study site may be monitored by the Mulago Hospital Research and Ethics Committee at any time.
2. That you will be abide by the regulations governing research in the country as set by the Ugandan National Council for Science and Technology including abiding to all reporting requirements for serious adverse events, unanticipated events and protocol violations.
3. That no changes to the protocol and study documents will be implemented until they are reviewed and approved by the Mulago Hospital Research and Ethics Committee.
4. That you provide quarterly progressive reports and request for renewal of approval at least 60 days before expiry of the current approval.
5. That you provide an end of study report upon completion of the study including a summary of the results and any publications.
6. That you will include Mulago Hospital in your acknowledgements in all your publications.

I wish you the best in this Endeavour.

APPROVED
APPROVAL DATE 03 JAN 2023 EXPIRY DATE 02 JAN 2025
MULAGO RESEARCH ETHICS COMMITTEE
IRC

DR. NAKWAGALA FREDERICK NELSON
CHAIRMAN- MULAGO HOSPITAL RESEARCH & ETHICS COMMITTEE.

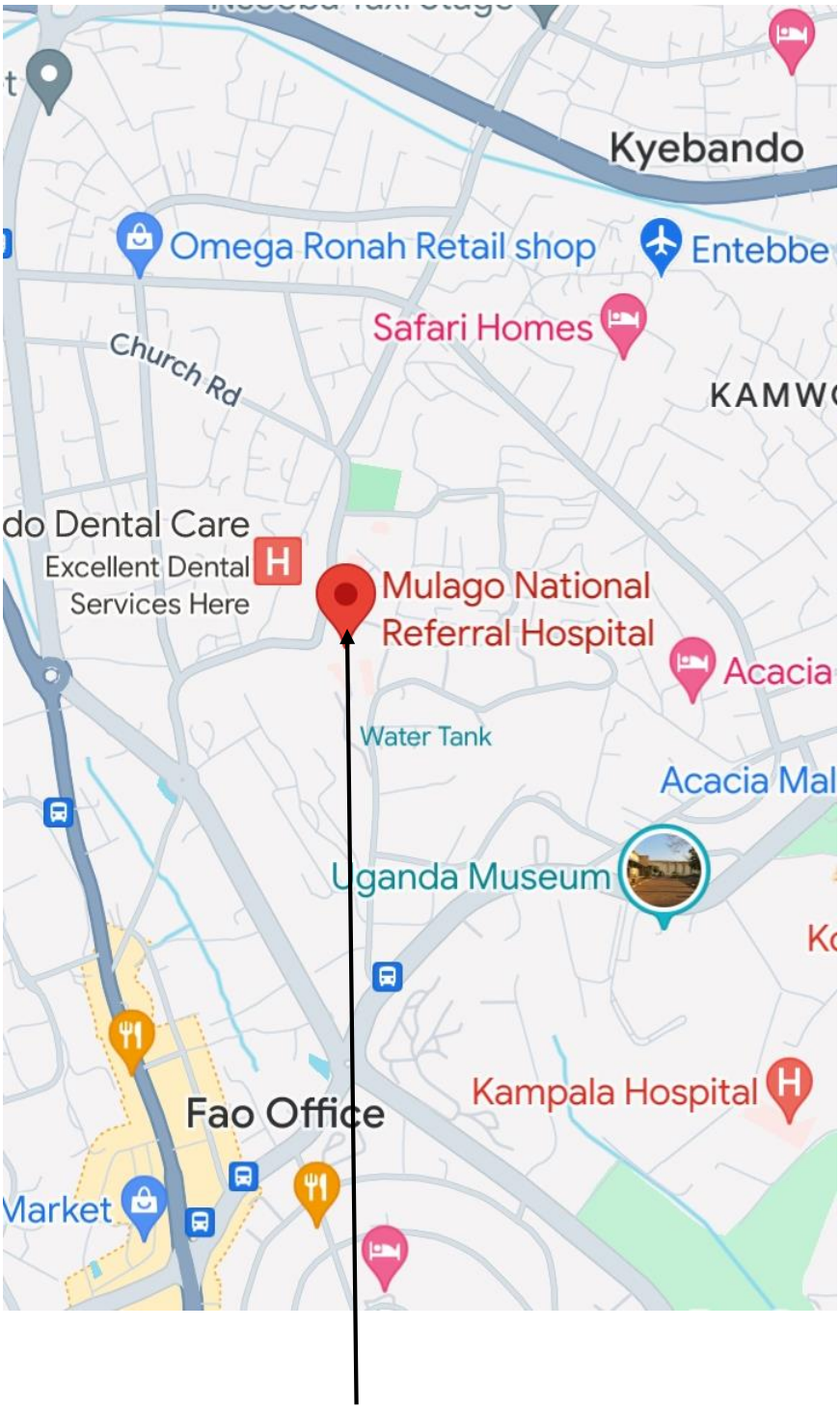
Vision: "To be the leading centre of Health Care Services"

Appendix IV: Map of Uganda Showing Kampala District



Kampala district

Appendix V: A Map Showing the Study Area



Study Area

Appendix VI: Krejcie and Morgan table

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size

"S" is sample size