KNOWLEDGE, ATTITUDES AND PRACTICES OF NURSES IN RESUSCITATING CASUALTIES INVOLVED IN ROAD TRAFFIC ACCIDENTS IN UGANDA:

A CASE OF MULAGO NATIONAL REFERRAL HOSPITAL.

BY

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2021AP/BNS/1219



A DISSERTATION SUBMITTED TO THE DEPARTMENT OF NURSING IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A BACHELLOR OF NURSING SCIENCE OF KING CEASOR UNIVERSITY

MARCH, 2024

DECLARATION

I, **Ainembabazi Sylivia,** hereby declare that this dissertation **on knowledge, attitudes and practices of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward Mulago National Referral Hospital Uganda: A case of Mulago National Referral Hospital** is my original work and has never been submitted before any school, or institution of learning for any academic award of any qualification. Theories, ideas and materials obtained from existing literature and other sources have been fully acknowledged and referenced.

Signed..... **Date**..20/03/2024.....

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APPROVAL

This dissertation titled "**knowledge, attitudes and practices of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward Mulago National Referral Hospital Uganda: A case of Mulago National Referral Hospital"** by "Ainembabazi sylivia" has been done under my supervision and is approved for submission

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DEDICATION

This research is dedicated with love and gratitude to my husband MR Eyalu Moses and our children Joshua, Naome and Miriam, Eliasaph who have been there for me and supported me in my pursuits.

I also dedicate this work to my parents who instilled the value of education and fundamental skills of life in me and for their prayers. Thank you for raising me to be who I am today.

ACKNOWLEDGEMENT

I acknowledge the guidance and mentorship provided by my Supervisor Ms Nsenga Marcella, whose expertise and constructive feedback significantly enriched the research process. I extend my heartfelt gratitude to the participants who willingly shared their insights and experiences, contributing to the success of this study. My appreciation goes to the Nursing staff at Mulago National Referral Hospital for their cooperation and valuable input.

Finally, I am grateful to my family and friends for their unwavering support and encouragement throughout this journey. Their patience, understanding, and words of encouragement have been a source of strength and motivation.

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LIST OF ABBREVIATIONS

ALS	Advanced Life Support
BLS	Basic Life Support
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
NEMS	National Emergency Medical Services
RTA	Road Traffic Accidents
UBOS	Uganda Bureau of Statistics
USA	United States of America
WHO	World Health Organization
A&E	Accident and Emergency

OPERATIONAL DEFINITIONS

Accident Is an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury

Attitude Is a tendency of a person to respond positively or negatively towards something.

Casualty **I**s a person injured or killed in an accident.

Knowledge Refers to the information and understanding that individuals, in this case, nurses, possess about a particular subject or area, such as the procedures and protocols related to resuscitating casualties in the context of road traffic accidents.

Practices Are actual actions and procedures that nurses undertake when involved in the resuscitation of casualties from road traffic accidents.

Resuscitation Is the process of reviving or restoring life in individuals who have suffered injuries or medical emergencies, particularly those involved in road traffic accidents.

Road traffic accidents Are incidents that occur on roadways involving vehicles, such as cars, motorcycles, bicycles, or pedestrians resulting into collisions, injuries or fatalities

ABSTRACT

Introduction

According to the World Health Organization WHO (2022), Road Traffic Accidents (RTAs) stand as the primary cause of mortality among individuals aged 5 to 29 worldwide. Uganda faces significant challenges, including a 42% increase in accidents in 2021. Effective resuscitation is crucial in mitigating mortality and disability resulting from RTAs, underscoring the importance of assessing nurses' competencies and attitudes in emergency care provision.

Objectives

The purpose of the study was to establish the knowledge, attitudes and practices of nurses, in resuscitating road traffic accidents casualties, in Accident and Emergency Ward, Mulago National Referral Hospital Uganda.

Methods and Materials

The study utilized a cross-sectional descriptive design. Purposive sampling selected 36 registered nurses; data was collected using structured questionnaires and observation checklists. Ethical considerations were upheld, and dissemination plans included conferences, publications, and library submissions.

Results

The study revealed nurses' demographics as 24(66.7%) aged 30-40 years, 29(80.6%) female. Most hold a Diploma 21(58.3%) and have over 10 years of experience 20(55.6%). Regarding knowledge, 22(61.1%) knew CPR, and 31(86.1%) understood compression-to-ventilation ratio. Attitudes varied: 20(55.6%) felt prepared, while 11(30.6%) agreed on promptly responding to RTA emergencies. Practices showed 20(55.6%) encountering RTA casualties frequently, but only 12(33.3%) monitored deterioration signs effectively. Overall, 30(83.3%) rated their performance positively.

Conclusion

Majority of nurses demonstrated a high level of knowledge and positive attitudes towards the management of RTA emergencies; however, there are evident gaps in practice. Addressing these gaps requires comprehensive training programs focusing on trauma management and

resuscitation techniques, emphasizing hands-on training and continuous professional development opportunities**.** There is need to develop strategies to promote a proactive attitude towards preparedness and prompt response to RTA emergencies among nurses

CHAPTER ONE: INTRODUCTION

1.1 Background

The study investigated the knowledge, attitudes and practices of nurses in resuscitating casualties involved in road traffic accidents in Mulago National Referral Hospital.

According to the World Health Organization WHO (2022), Road Traffic Accidents (RTAs) stand as the primary cause of mortality among individuals aged 5 to 29 worldwide.

Annually, an estimated 1.3 million lives are lost due to these accidents, with over half of the fatalities affecting vulnerable road users like pedestrians, cyclists, and motorcyclists (Nshutiyukuri *et al,* 2020). A significant 93% of global road traffic fatalities occur in low- and middle-income countries, despite these nations accounting for approximately 60% of the world's vehicles (Nigatu *et al,* 2022).

In Africa, the issue of road traffic accidents is particularly severe, with over 90% of road traffic fatalities occurring in low- and middle-income countries WHO (2022). Compared to the European region, the African region witnesses the highest rates of death resulting from road traffic injuries (Werunga et al, 2023).

Notably, even within high-income countries, individuals from lower socioeconomic backgrounds face a higher likelihood of involvement in road traffic accidents. The continent moves with a significant frequency of RTAs, imposing a substantial burden on both human lives and healthcare systems (Abegaz & Gebremedhin, 2019).

Challenges related to road safety, vehicle maintenance, and emergency medical response exacerbates the severity of this issue. Consequently, there's a growing focus on comprehending and tackling the specific challenges associated with RTAs and emergency medical care in Africa.

Within East Africa, road traffic accidents continue to be a pressing issue. Countries in the region face unique challenges, including diverse topography, varying levels of healthcare infrastructure, and differing road safety regulations (Mitra et al, 2021).

East African nations are increasingly recognizing the importance of improving emergency care for RTA victims, to mitigate the impact of accidents on public health (2021). In Uganda, the World Health Organization (WHO) has placed it among the nations grappling with alarmingly high traffic-related mortality rates, estimated at 29 car-related deaths per 100,000 individuals. This figure is significantly troubling, surpassing both the African region's rate of 24.1 per 100,000 individuals and the global average of 18.0 per 100,000 individuals for road traffic fatalities. The escalation in road crashes further compounds this concern (Razzaghi *et al* , 2020).

This surge in road accidents has notably amplified mortality, injuries, morbidity, trauma, and disabilities, as evident from the Uganda Police Force database for 2022. The Uganda Police Force (UPF) Annual Report for 2021 indicates a stark 42% escalation in road traffic crashes, surging from 12,249 in 2020 to 17,443 in 2021. Amidst this surge, 3,757 crashes resulted in fatalities, while 4,616 were classified as minor incidents. The total casualties from these accidents in 2021 reached 18,305, marking an 11% decrease (Sadat *et al,* 2022).

Within this timeframe, fatalities reduced by 6%, severe injuries decreased by 13%, and minor injuries dropped by 17%, as outlined in the Uganda Police Force Annual Report for 2021.Uganda experiences a significant number of RTAs, which place immense pressure on its healthcare system (Muni *et al,* 2021).

The complications associated with RTA patients occur mostly in the first few hours following the accidents but this can be alleviated by timely, correct, effective and efficient management of these patients (Madar *et al*, 2022).

The critical role of resuscitation in accident emergencies require that health care professionals are knowledgeable and competent in carrying out cardiopulmonary resuscitation. When patients face a life-threatening event such as cardiopulmonary arrest, successful management rely on the competence and skill of healthcare professionals (Sadat et al, 2022).

Understanding the knowledge, attitudes, and practices of nurses in Uganda regarding the resuscitation of RTA casualties is critical in developing effective strategies to reduce mortality and disability resulting from these accidents. It is within this Ugandan context that the research seeks to investigate the role of nurses in providing emergency care to RTA victims.

This study was therefore designed to assess Nurses' knowledge, skills and attitudes in resuscitation of causalities in the emergency/critical care units and surgical wards given that there are more likely to identify patients that require resuscitation. This highlighted the need for regular in-service resuscitation training programs to keep nurses updated and competent in resuscitation.

1.2 Problem statement

Road traffic accidents (RTAs) are a major public health problem in Uganda, and RTA casualties often require urgent resuscitation to survive. However, there is limited information on the knowledge, attitudes, and practices of nurses in resuscitating RTA casualties in Uganda.

This lack of information is a real problem, as it would be difficult to develop and implement effective interventions to improve the quality of resuscitation care provided to RTA casualties in Uganda.

RTAs are the leading cause of death for young people aged 5-29 years old in Uganda. There was a stark 42% rise in the number of road traffic crashes, soaring from 12,249 in 2020 to 17,443 in 2021 (UPF, Annual Report for 2021). RTA casualties in Uganda often have poorer outcomes than RTA casualties in other parts of the world. This might be due to a number of factors, including lack of access to emergency care, lack of training, lack of resources, and lack of awareness, to mention but a few.

In response to this, there have been some efforts to address the problem of poor resuscitation care for RTA casualties in Uganda. For example, the government of Uganda has developed a National road safety strategy and a National Emergency Medical Services (NEMS) policy. However, these policies have not yet been fully implemented.

This study identified the gaps by conducting a comprehensive assessment of the knowledge, attitudes, and practices of nurses in resuscitating RTA casualties in Uganda.

1.3 Research questions

i. What is the knowledge of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward. Mulago National Referral Hospital?
ii. What are the attitudes of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward, Mulago National Referral Hospital?
iii. What are the practices of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward, Mulago National Referral Hospital?

1.4 Purpose of the Study

The purpose of the study was to establish the knowledge, attitudes and practices of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward, Mulago National Referral Hospital Uganda.

1.5 Objectives of the study

i. To assess the knowledge of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward, Mulago National Referral Hospital.

ii. To determine the attitudes of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward, Mulago National Referral Hospital.

iii. To assess practices of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward, Mulago National Referral Hospital.

1.6 Scope of the study

1.6.1 Geographical Scope

The study was conducted in Accident and Emergency Ward, of Mulago National Referral Hospital in Kampala District. The hospital is on Mulago Hill in the northern part of the city of Kampala, just to the west of Makerere University College of Health Sciences.

It is approximately 5 kilometres (3miles), by road, north-east of Kampala City Centre. The geographical coordinates of the hospital are 0°20'16.0N, 32°34'32.0E (Latitude: 0.337786; Longitude: 32.575550).

Mulago hospital has a total bed capacity of around 1,600. Daily admissions: Estimates suggest between 300 and 500 patients are admitted daily to Mulago hospital, but this may vary depending on various factors like time of year and health emergencies. Road traffic accidents and emergency cases are around 40 for daily admissions.

Mulago hospital has dedicated units for both, including an Accident & Emergency (Causality) department for trauma cases and an Acute Care Unit for Paediatrics. Additionally, the hospital serves

as a National Referral Centre for complex cases, suggesting it likely manages a significant number of road accident and emergency patients from across the Region.

Therefore, there is a need for nurses being knowledgeable and skilful of handling such conditions in addition to having the positive and relevant attitudes that would promote quick action in the management of injured patients.

1.6.2 Content Scope

The study was mainly focused on the knowledge, attitudes and practices of nurses in resuscitating casualties involved in road traffic accidents on Accident and emergency Ward in Mulago National Referral Hospital Uganda.

1.6.3 Time Scope

The research was conducted from August 2023 to March 2024 as a basis for getting enough, relevant and justified information related to knowledge, attitudes and practices of nurses in resuscitating casualties involved in road traffic accidents in Mulago National Referral Hospital Uganda.

1.7 Significance of the study

For Ministry of Health, the study will offer crucial insights into the practices, attitudes and knowledge levels of nurses dealing with RTA casualties. This knowledge will inform the Ministry's policies, allowing for targeted interventions, training programs, and resource allocation to improve emergency care practices. Ultimately, this could lead to enhanced healthcare outcomes and reduced mortality rates.

The International health organizations and development partners will also utilise the study's findings to align their support and funding with specific needs within Uganda's healthcare system. This

alignment will ensure that their contributions are directed towards areas requiring improvement, thereby maximising the impact of their assistance.

The research outcomes will benefit Kampala by fostering improved emergency response strategies and reducing RTA-related fatalities and disabilities. This will contribute to strengthening public safety, enhancing overall community well-being, and potentially lowering the burden on the city's healthcare infrastructure.

The study findings will serve as a valuable resource for researchers by providing a foundational understanding of the knowledge, attitudes, and practices of nurses in RTA resuscitation. Researchers can use this information as a baseline for further investigations or interventions aimed at refining emergency care practices and advancing healthcare knowledge in this area.

The study's insights will also benefit healthcare professionals directly involved in emergency care. Understanding the gaps in knowledge and practices can lead to tailored training programs and continuous education, enhancing their ability to provide effective and efficient care to RTA casualties.

1.8 Justification of the study

The study addressed crucial gaps in emergency care for road traffic accident (RTA) victims in Uganda. Without this study, the existing challenges in RTA resuscitation among nurses may persist, potentially leading to suboptimal patient outcomes and increased mortality rates.

Additionally, the study aimed to contribute to the body of knowledge by providing insights that can inform targeted interventions, improved practices, and education programs. Its findings will influence policy-making, resource allocation, and the development of evidence-based guidelines, enhancing emergency care practices.

More to that, the study set a precedent for further research and advancements in the emergency care setting, ultimately contributing to a more efficient and effective healthcare environment for RTA victims in Uganda.

1.9 Conceptual Framework

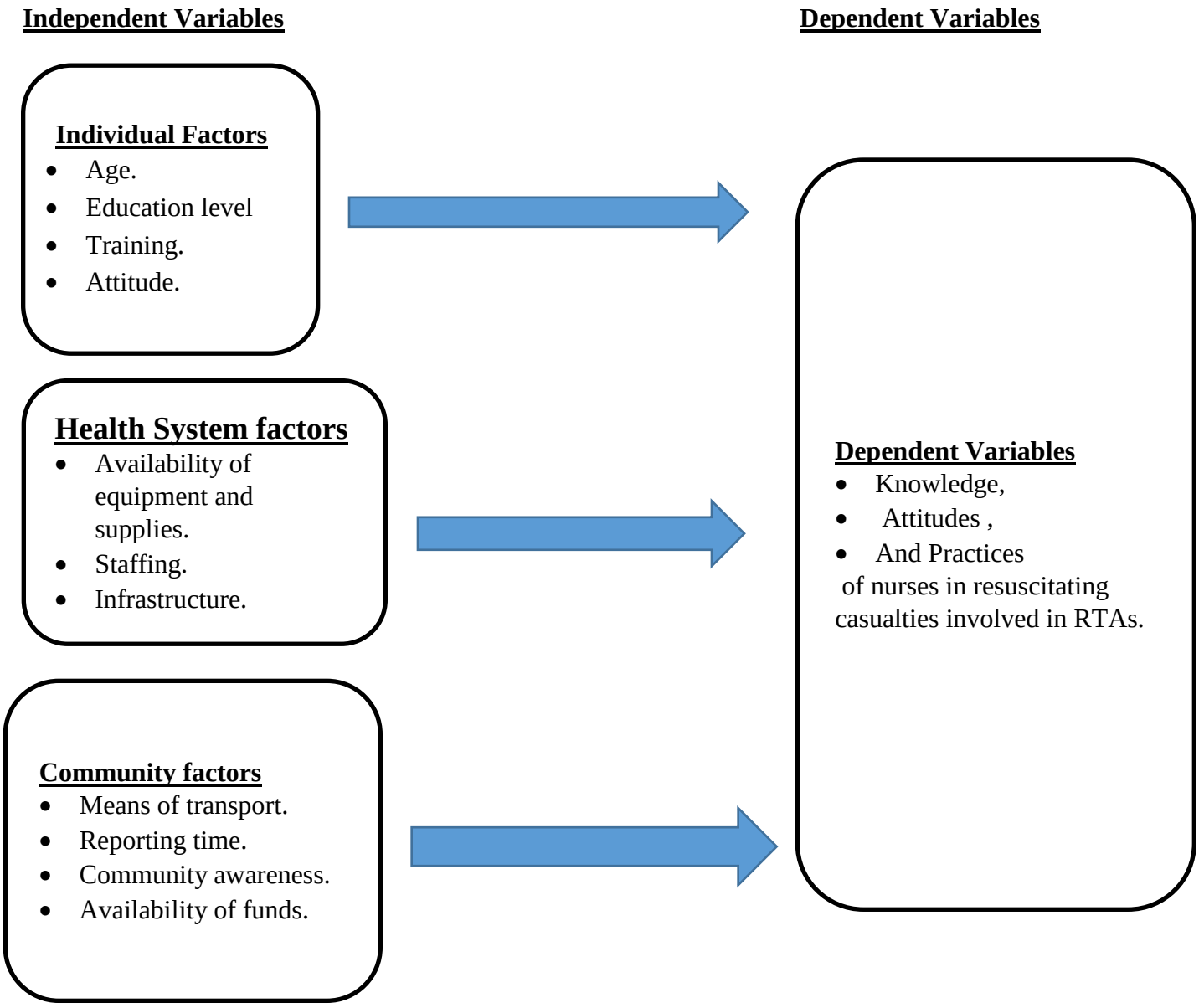


Figure 1: Conceptual Framework of knowledge, attitudes and practices of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward, Mulago National Referral Hospital Uganda.

Source: Adopted from Maseko et al, (2021)

The conceptual framework for this study incorporates various factors that collectively influence the knowledge, attitudes, and practices of nurses in resuscitating casualties involved in road traffic

accidents (RTAs). Individual factors encompass elements such as age, education level, and the specific training received in RTA resuscitation.

Age may potentially affect the capacity to comprehend and retain new information relevant to emergency care, while education level could influence the depth of understanding and application of resuscitation techniques.

Training in RTA resuscitation plays a pivotal role, shaping nurses' proficiency and confidence in executing life-saving procedures.

Moreover, health system factors, including the affordability of resources, staffing levels, and infrastructure, significantly impact nurses' abilities to deliver effective emergency care.

Adequate access to necessary resources, such as medical equipment and supplies, influences the quality of care provided. Optimal staffing levels ensure timely and efficient responses to RTA cases, while infrastructure, such as well-equipped emergency rooms, supports nurses in delivering immediate and comprehensive care.

Community factors also play a crucial role in shaping nurses' practices. The means of transport available in the community can impact the timely arrival of RTA victims to healthcare facilities, affecting the nurses' response time and subsequent care. Reporting time, or the speed at which accidents are reported, influences the immediacy of emergency responses.

Additionally, community awareness about RTA prevention and emergency care, as well as awareness of available funds or support, can influence the overall preparedness and responsiveness of nurses.

These individual, health system, and community factors collectively interact and contribute to shaping the knowledge, attitudes, and practices of nurses in handling RTA casualties. The dependent variables,

namely the knowledge, attitudes, and practices of nurses, are influenced by the interplay of these factors, highlighting the multidimensional nature of emergency care within the context of road traffic accidents.

1.10 Theoretical framework

1.10.1 Health Belief Model (HBM)

The study will adopt the Health Belief Model (HBM) which was formulated by social psychologists Hochbaum, Rosenstock, and Kegels in the 1950s as a tool to explain health-related behaviours, particularly regarding preventative health services uptake (Aguru, 2022).

The HBM comprises five key components: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action. Perceived susceptibility and severity focus on an individual's perception of the risk and seriousness of a health threat, while perceived benefits and barriers assess the perceived effectiveness of actions and obstacles to taking those actions. Cues to action prompt individuals to engage in health-promoting behaviour (Maseko et al, 2021).

The model has various strengths for example it is intuitive and straightforward, providing a framework to understand how individuals perceive health threats and the factors influencing their actions. It has been extensively used in health behaviour research and has practical applications in designing interventions to promote health-related behaviours.

However, one criticism of the HBM is its oversimplification of health behaviour. It doesn't consider external factors like social, cultural, and environmental influences that significantly impact behaviour. Additionally, it assumes that rational decision-making guides health behaviours, overlooking emotional and social aspects.

The Health Belief Model (HBM) is highly relevant to understanding the knowledge, attitudes, and practices of nurses in resuscitating casualties involved in road traffic accidents (RTAs) at Mulago National Referral Hospital in Uganda.

The HBM aids in comprehending how nurses perceive the severity of RTAs and their susceptibility to encountering such incidents. It assists in assessing their understanding of the injuries resulting from RTAs, the potential complications, and the urgency of prompt and effective resuscitation. Understanding nurses' perceived knowledge gaps through the HBM can guide interventions to enhance their awareness and expertise in handling RTA casualties (Hosseinpour et al, 2023).

Furthermore, the model helps in assessing nurses' attitudes towards RTAs and resuscitation procedures. It explores their beliefs in the efficacy of resuscitation efforts, their concerns about barriers (such as resource constraints or training inadequacies), and their confidence in their ability to perform life-saving interventions.

Recognizing these attitudes through the HBM can aid in addressing misconceptions, boosting confidence, and improving the receptiveness of nurses towards adopting best practices. In terms of practices, the HBM highlights the perceived barriers that may hinder nurses' effective response to RTA casualties. It identifies cues to action that prompt or discourage the implementation of resuscitation procedures. Utilizing the HBM can uncover systemic obstacles or resource constraints that impact the application of best practices in emergency care.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Road traffic accidents (RTAs) pose a significant public health challenge worldwide, and their impact on human lives is particularly distressing (Khorasan *et al,* 2023). These accidents often result in critical injuries and casualties that require immediate medical attention, and the knowledge and skills of healthcare professionals, particularly nurses who play a crucial role in the process of resuscitating these victims (Mahmood, *et. al,* 2021).

This chapter comprises of information obtained from previous researchers, journals and text books The literature review provides a comprehensive exploration of existing research and scholarly works relevant to the knowledge, attitudes, and practices of nurses in resuscitating casualties involved in road traffic accidents.

2.2 Knowledge of nurses in resuscitating casualties involved in road traffic accidents

The knowledge of nurses in resuscitating casualties is of paramount importance. When a casualty is involved in a road traffic accident, the initial moments are often critical, and the decisions made by healthcare professionals can be a matter of life and death (Vinish *et al*, 2020).

Knowledge serves as the foundation upon which these decisions are based. Nurses need to possess a solid understanding of the protocols, techniques, and best practices in resuscitation. This includes knowledge of Basic Life Support (BLS) and Advanced Life Support (ALS) procedures, airway management, and defibrillation techniques. Knowledge evolves over time as new research findings, guidelines, and techniques emerge (Neeki *et al*, 2021).

Therefore, continuing education is imperative. Nurses should stay current with the latest resuscitation guidelines and best practices. Staying updated is essential to maintaining the highest standards of care

and ensuring that casualties receive the most effective treatment (Neeki *et al*, 2021). In the researcher's view, this dynamic landscape of medical knowledge underscores the necessity for nurses to actively engage in ongoing education, embracing refresher courses, and fostering continuous professional development.

While nurses play a vital role in the resuscitation of casualties from RTAs, studies have revealed knowledge gaps among healthcare professionals, including nurses. (Neeki *et al*, 2021). These gaps may encompass incorrect sequences of resuscitation steps, suboptimal use of medical equipment, or non-adherence to current resuscitation protocols (Werunga *et al*, 2023). This implies that pinpointing and understanding these deficiencies is fundamental to rectifying existing gaps in knowledge and enhancing the overall quality of care administered during resuscitation efforts.

The study conducted by Nshutiyukuri et al. (2020), reveals that nurses' proficiency in providing emergency care to victims of road traffic accidents may be assessed by simulating various scenarios and identification exercises in Rwanda. These insights serve as pivotal guideposts, directing future interventions and training strategies aimed at fortifying nurses' knowledge in comprehensive emergency care provision (Nshutiyukuri et al, 2020).

Individual factors like age, education, and training in resuscitation significantly influence the knowledge levels of nurses in several ways. Typically, more experienced nurses, often older in age, may possess a wealth of practical knowledge gained through years of exposure to diverse patient cases. (Schiefer et al, 2020). They might exhibit higher competency in handling emergencies due to their extensive hands-on experience.

According to Ndung'u et al, (2022) younger nurses might bring fresh perspectives and a better grasp of updated medical practices owing to recent education. This implies that nurses with higher levels of

education, especially those with advanced degrees or specialised training in emergency care and resuscitation, tend to demonstrate deeper theoretical understanding and advanced problem-solving skills. They may be better equipped to assimilate complex medical information and apply it effectively in emergency situations.

The extent and quality of training directly impact nurses' proficiency in handling resuscitation scenarios. Nurses who undergo frequent, comprehensive, and up-to-date training programmes tend to exhibit superior knowledge in recognising critical indicators, employing appropriate techniques, and adhering to established protocols during emergencies (Abate, & and konnen, 2020).

This implies that age, education, and training act as pivotal determinants in shaping the depth and breadth of a nurse's knowledge in resuscitation. Continued professional development, regardless of age, education level, or initial training, remains essential to maintaining and advancing the proficiency of nurses in providing optimal care during emergency situations.

Health system factors such as affordability of resources, staffing levels, and infrastructure also significantly impact the knowledge of nurses in resuscitation. The accessibility and availability of essential resources, including medical equipment, training materials, and technological advancements, profoundly influence nurses' knowledge (Manono 2022). Adequate funding and affordability of these resources ensure regular access to updated training modules, advanced equipment, and contemporary literature, enhancing nurses' awareness and expertise in resuscitation techniques.

Furthermore, optimal staffing levels play a crucial role in shaping nurses' knowledge in resuscitation (Escarlan, and Tabalbag, 2023). Adequate nurse-to-patient ratios enable professionals to allocate sufficient time for ongoing education, training, and skill development. Shortages in staffing can hinder

opportunities for nurses to engage in comprehensive training sessions, potentially limiting their exposure to new techniques and best practices.

The quality and functionality of healthcare infrastructure significantly impact nurses' capacity to acquire and apply resuscitation knowledge. Well-equipped facilities, including emergency departments with state-of-the-art technology, simulation labs for hands-on training, and access to updated medical literature, foster an environment conducive to continuous learning and skill enhancement for nurses (Dulo 2020).

In contrast, inadequate infrastructure might restrict nurses' exposure to modern practices and hinder their ability to stay abreast of advancements in resuscitation. This implies that the affordability of resources, staffing levels, and infrastructure within the healthcare system are pivotal in shaping nurses' knowledge and competence in resuscitation (Dulo 2020). An optimally resourced healthcare environment enables nurses to access ongoing education, apply updated techniques, and develop proficiency in providing effective emergency care.

Community factors like means of transport, reporting time, community awareness, and awareness of funds significantly influence nurses' knowledge in resuscitation. The availability and efficiency of transportation systems impact nurses' ability to provide timely care (Manono 2022).

Accessible and well-established transportation networks ensure swift transfer of patients to healthcare facilities, allowing nurses to intervene promptly (Solomon et al, 2020). Adequate ambulance services and efficient road networks contribute to reducing the delay in reaching medical care, positively influencing nurses' ability to administer timely resuscitation.

The level of awareness within the community regarding road safety practices and basic first aid measures directly impact nurses' response and the quality of care provided care (Basak *et al,* 2019). A well-informed community is more likely to engage in preventative measures and prompt reporting of accidents, facilitating nurses' ability to offer timely and appropriate resuscitation care.

Community knowledge about available financial resources and health insurance schemes can influence access to healthcare services (Sadat et al, 2022). Adequate awareness of funding options ensures that individuals involved in road accidents can seek timely medical assistance without financial constraints. This enhances nurses' ability to administer comprehensive care without delays due to financial concerns.

Therefore, community factors such as means of transport, reporting time, community awareness, and awareness of funds significantly affect nurses' capacity to provide timely and effective resuscitation. A well-informed and well-equipped community, along with efficient transportation systems, contributes to enabling nurses to deliver optimal emergency care to road traffic accident victims.

The knowledge of nurses in resuscitating casualties directly influences patient outcomes. Vinish *et al,* (2020) demonstrated that improved knowledge and adherence to best practices lead to better survival rates among casualties involved in RTAs in Udupi India. The ability of nurses to correctly assess a situation, initiate life-saving procedures promptly, and make informed decisions can significantly impact the chances of recovery and survival for the victims (Werunga *et al,* 2023). Therefore, nurses with a strong foundation of knowledge are better equipped to handle the demands of RTA-related resuscitations effectively.

Research by Vinish *et al,* (2020) underscores the significance of swift and efficient emergency healthcare in the context of RTA victims in Udupi India. It is reveals that the sooner and more

efficiently this care is administered, the higher the likelihood of survival and a smoother recovery process with fewer complications.

Furthermore, there is compelling evidence to suggest that minimizing the time elapsed between the occurrence of the accident and the commencement of emergency care, ideally within the critical window of 15 to 25 minutes, can substantially reduce the rate of fatalities by as much as one-third (Nigatu *et al,* 2022). This emphasises therefore, the vital role of timely intervention and swift emergency response in mitigating the severity of outcomes following road traffic accidents. Implementing strategies and systems that ensure rapid deployment of emergency healthcare within this critical window could notably enhance the chances of survival and reduce the adverse impacts of RTAs.

The crucial link between a road traffic accident (RTA) victim and the healthcare system is typically a well-trained healthcare professional, and nurses that frequently fill this vital role (Werunga *et al,* 2023).

The study by Vinish *et al,* (2020) in Udupi India also shed light on a concerning pattern in mortality, revealing that for every five fatal accident victims, an additional death occurs outside the accident scene. This has underscored the potential consequences and complications arising from the mishandling and mismanagement of RTA patients by well-intentioned sympathizers who lack proper knowledge or training in handling accident victims (Manono 2022). Proper knowledge and training are, therefore, essential components of delivering effective emergency care to RTA casualties.

2.2 Attitudes of nurses in resuscitating casualties involved in road traffic accidents

According to Mahmood et al, (2021), Road traffic accidents (RTAs) are a significant public health concern globally, with devastating consequences often observed in Karachi, Pakistan. Among the first healthcare professionals on the scene of an RTA are nurses, whose attitudes play a pivotal role in

shaping the quality and effectiveness of resuscitation efforts. One fundamental attitude exhibited by nurses in RTA resuscitation is compassion.

These healthcare professionals are often confronted with victims who may be in severe pain or distress, and the ability to convey genuine care and concern can have a calming effect on the injured in Northwest Ethiopia (Mersha *et al,* 2020).

However, compassion extends not only to the physical well-being but also the emotional and psychological state of the casualty in Kenya (Dulo, 2020). Nurses who exhibit empathy in understanding the fear, anxiety, and trauma experienced by the victims can create a supportive environment that encourages trust and cooperation. This nurturing attitude is instrumental in building a strong nurse-patient relationship, even in the midst of chaos.

In the context of resuscitating casualties involved in road traffic accidents, the attitudes of nurses play a pivotal role in determining the quality and timeliness of emergency care provided. This significance arises from the variation in the category of emergency care required by road traffic victims, which is contingent on the severity of their injuries in Karachi, Pakistan (Mahmood et al, 2021).

In instances of relatively minor injuries, victims may not require hospitalization, but they still necessitate close observation by individuals with a fundamental understanding of emergency healthcare in Israeli (Madar et al, 2022). Conversely, when injuries are substantial, a structured and interconnected sequence of emergency care is essential.

This sequence commences with the initial actions taken by those present at the accident scene, often including witnesses. Individual Factors, such as age, education, and training in resuscitating, might influence the attitudes of nurses in in Bangladesh (Basak *et al*, 2019).

The age of nurses can impact their attitudes towards resuscitating casualties in road traffic accidents. According to Zali *et al,* (2023) younger nurses might exhibit higher adaptability to new techniques and technologies, fostering a more receptive attitude towards adopting updated resuscitation practices.

Contrary, older nurses, while bringing experience, might exhibit a more conservative approach, preferring familiarity with traditional methods (Dulo 2020). However, Abuhassna et al, (2020), pointed out that this is not universally true and varies based on individual characteristics. Furthermore, higher education levels often correlate with a more positive attitude towards learning and adopting new practices.

Nurses with advanced education might demonstrate a more open-minded approach to incorporating updated resuscitation protocols and guidelines into their practices (Moon, and Hyun 2019).

Education can instil a sense of confidence and competence, contributing to a more positive attitude towards embracing change and adopting evidence-based practices.

Basak *et al*, (2019), pointed out that nurses with specific and recent training in resuscitation techniques tend to display more positive attitudes. Updated training keeps nurses abreast of the latest advancements in resuscitation, fostering a proactive and confident attitude towards managing road traffic accident casualties. Training enhances their skills and knowledge, leading to greater preparedness and confidence in handling critical situations (Moon, and Hyun 2019).

Therefore, individual factors such as age, education, and training in resuscitating can influence nurses' attitudes. Younger age groups might exhibit more openness to change. Higher education levels often correlate with a positive attitude towards learning, and recent training tends to promote confidence and preparedness (Moon, and Hyun 2019). However, attitudes are subjective and can vary widely among individuals based on their unique experiences and perspectives.

Community factors, such as means of transport, reporting time, community awareness, and awareness of funds, wield considerable influence over nurses' knowledge in resuscitation. The efficiency of transportation systems profoundly impacts nurses' attitudes toward care provision. According to Solomon et al, (2020), reliable transport fosters a proactive mind-set among nurses, anticipating timely patient arrivals.

Conversely, inadequate or inefficient transportation may engender frustration or feelings of helplessness, jeopardizing patient care. Brief reporting times positively shape nurses' attitudes, instilling a sense of readiness and preparedness (Taylor et al, 2021). Prompt reporting empowers nurses, enhancing their motivation to deliver effective care. In contrast, prolonged reporting times may induce stress or concern, signalling potential delays in patient care.

A well-informed community acts as a positive catalyst for nurses' attitudes, cultivating a sense of partnership and support as noted by Basak *et al*, (2019). Increased community awareness fosters a cooperative environment where individuals proactively adopt road safety measures, potentially boosting nurses' confidence and willingness to engage with the community (Rewakowski et al, 2021). Conversely, limited community awareness may generate frustration or disappointment among nurses, particularly if they perceive a lack of community involvement in accident prevention.

According to Werunga et al, (2023), awareness of available financial resources can significantly shape nurses' attitudes toward care provision. Access to financial support or health insurance reassures nurses about delivering comprehensive care without financial barriers (Marufu et al, 2021).

Conversely, limited awareness of funds may trigger concerns or ethical dilemmas for nurses, especially when facing patients with financial constraints hindering optimal care provision. Therefore, the level

of means of transport, reporting time, community awareness, and awareness of funds profoundly influences nurses' attitudes toward delivering care (Maseko et al, 2021).

Accessible resources, prompt reporting, informed communities, and financial support contribute to fostering positive attitudes among nurses, promoting a sense of preparedness and empowerment in delivering effective resuscitation care. Conversely, limitations in these factors may lead to negative attitudes stemming from perceived challenges or constraints in providing optimal care. The health system factors wield significant influence over the attitudes of nurses engaged in resuscitating casualties from road traffic accidents. Access to affordable resources within healthcare facilities plays a pivotal role in shaping nurses' mind-sets (Mahmood *et al,* 2021).

The availability of necessary medical equipment, medications, and supplies fosters a sense of readiness and confidence among nurses, positively impacting their attitudes (Abegaz and Gebremedhin, 2019). On the other hand, limited affordability could trigger concern or frustration if nurses perceive a deficit in essential resources crucial for delivering optimal patient care. Moreover, adequate staffing levels exhibit a direct correlation with nurses' attitudes towards their work.

A sufficient workforce lends support and enhances nurses' capacity to manage patient needs effectively, fostering a positive work environment. It should also be noted that understaffing may evoke stress, fatigue, and a sense of being overwhelmed among nurses, potentially influencing their attitudes and overall job satisfaction (Werunga *et al,* 2023). Furthermore, well-equipped and functional infrastructure contributes significantly to nurses' attitudes.

Modern and well-maintained facilities create a conducive workspace, bolstering nurses' confidence and efficiency in administering care. Equally, inadequate or poorly maintained infrastructure could breed frustration and dissatisfaction among nurses due to limitations in delivering top-notch care, affecting

their attitudes towards their work. Therefore, this implies that the affordability of resources, staffing levels, and infrastructure significantly influence nurses' attitudes within the health system (Werunga *et al,* 2023).

Accessible resources, adequate staffing, and conducive infrastructure can enhance nurses' confidence, job satisfaction, and feelings of support in providing care. Conversely, limitations in these health system factors might lead to negative attitudes, stress, or concerns among nurses, potentially impacting their morale and ability to deliver optimal call. The attitude of readiness and alertness is crucial in the context of RTA resuscitation. Nurses must be prepared for the unpredictable and swiftly changing circumstances that may unfold at the accident scene (Sadat et al, 2022).

This attitude encompasses being mentally prepared to adapt to different scenarios, remaining vigilant in assessing the severity of injuries, and promptly making critical decisions Nurses should be ready to mobilize available resources and work collaboratively with other first responders to ensure that every action is in the best interest of the casualty. Resuscitating casualties involved in RTAs demands a commitment to excellence from nurses. The attitude of continuously striving for the highest standards of care is essential (Werunga *et al,* 2023).

This commitment involves staying updated with the latest resuscitation protocols and guidelines, participating in on going training, and being open to self-assessment and improvement. The pursuit of excellence is not just for the benefit of the healthcare provider but, more importantly, for the benefit of the casualty. High-quality care can make the difference between life and death in these critical moments. (Werunga *et al,* 2023).

Campbell (2020) pointed out the attitudes of nurses in resuscitating casualties involved in RTAs are instrumental in determining the outcomes of these critical interventions. Compassion and empathy

create a supportive and reassuring environment for victims, while readiness and alertness enable swift and effective responses to the dynamic circumstances of an RTA.

A commitment to excellence ensures that the highest standards of care are maintained, increasing the chances of survival and optimal recovery (Mahmood *et al,* 2021). Additionally, cultural sensitivity and effective communication underscore the importance of holistic care. Nurses who embody these attitudes not only save lives but also provide comfort and hope in the most challenging of situations Their unwavering dedication to the well-being of RTA casualties makes them true heroes on the frontlines of emergency care.

2.3 Practices of nurses in resuscitating casualties involved in road traffic accidents

According Werunga *et al,* (2023) the practices of nurses in resuscitating casualties of road traffic accidents (RTAs) are pivotal in determining the immediate and long-term outcomes of victims. In the context of RTA resuscitation, nurses' practices should be characterized by a swift and efficient response. Time is of the essence, and the ability to act quickly can be the difference between life and death for the casualty. Nurses must efficiently assess the severity of injuries, initiate life-saving procedures, and make crucial decisions in a matter of moments. This practice is grounded in the recognition that every second counts and underscores the importance of immediate intervention.

Ufashingabire *et al,* (2023), the practices of nurses in RTA resuscitation must be firmly rooted in evidence-based interventions in Africa. These healthcare professionals should adhere to established guidelines and protocols, drawing from the latest research and best practices in emergency care.

Sadat et al, (2022), pointed out that evidence-based practices ensure that casualties receive the most effective and proven treatments, minimizing the risk of errors and complications. Staying updated with evolving guidelines and research findings is an essential component of this practice.

Community factors like means of transport, reporting time, community awareness, and awareness of funds significantly influence nurses' practices in resuscitation efficient transportation systems positively impact nurses' practices. Access to reliable transport allows for swift patient transfers, enabling nurses to promptly initiate necessary interventions upon patient arrival (Ashcraft *et al*, 2021).

Conversely, inadequate transportation might lead to delayed or compromised care practices due to delayed patient arrivals or limited medical resources upon arrival. With regards to shorter reporting times, they facilitate better nursing practices. Prompt reporting allows nurses to prepare resources, assemble teams, and set up necessary equipment in advance, enabling them to initiate appropriate interventions quickly (Egelund *et al*, 2020). Longer reporting times might impede effective practices, potentially leading to delays or suboptimal care due to insufficient preparation time.

A well-informed community plays a pivotal role in positively influencing nursing practices. Increased community awareness, as highlighted by Ndung'u et al, (2022), leads to better adherence to road safety measures and prompt reporting of accidents. This, in turn, empowers nurses to implement proper protocols upon arrival, enhancing the timeliness and effectiveness of care. Conversely, limited community awareness may impede nursing practices, as patients arriving with preventable injuries or delayed reporting can impact the overall quality and promptness of care provided.

Additionally, the knowledge of available financial resources significantly influences nursing practices. When patients have access to financial support or health insurance, nurses can administer comprehensive care without delays or limitations due to financial concerns. However, as noted by Mersha et al, (2020), limited awareness of funds may compel nurses to adapt practices based on resource availability, potentially affecting the level or quality of care delivered.

Therefore, the levels of means of transport, reporting time, community awareness, and awareness of funds significantly impact the practices of nurses in providing resuscitation care. Adequate resources, prompt reporting, informed communities, and financial support contribute to enabling nurses to implement effective and timely practices, ensuring optimal care provision (Mersha et al, 2020). Conversely, limitations in these factors may hinder nursing practices, leading to potential delays, compromises in care, or adaptations based on resource constraints.

Health system factors significantly influence the practices of nurses in resuscitating casualties involved in road traffic accidents. As highlighted by Koome et al. (2020), the affordability and availability of resources play a crucial role in shaping nursing practices. Access to affordable equipment, medications, and supplies allows nurses to carry out interventions promptly and effectively. Conversely, limited affordability may lead to adaptations in practices due to resource constraints, potentially compromising the quality and timeliness of care.

Adequate staffing levels positively impact nursing practices in the context of road traffic accidents. According to Campbell et al, (2020), sufficient staff enables nurses to allocate their time effectively, respond promptly to emergencies, and foster teamwork. However, understaffing can increase workloads, affecting the quality and timeliness of care.

Additionally, the quality and functionality of healthcare infrastructure, as noted by Taylor et al, (2021), play a vital role in shaping nursing practices. Well-maintained infrastructure supports efficient workflows and enhances patient safety. In contrast, inadequate or poorly maintained infrastructure may hinder practices, posing challenges in delivering timely and optimal care.

Individual factors such as age, education, and training also impact nursing practices. As outlined by Sadat et al, (2022), age can influence nurses' approaches to resuscitation techniques, with younger nurses being more adaptable to new technologies.

Higher levels of education, as discussed by Moon and Hyun (2019), generally enhance nursing practices by promoting evidence-based approaches and a systematic mindset. Moreover, specific training in resuscitation, highlighted by Ufashingabire et al, (2023), equips nurses with updated skills, enabling them to handle emergencies and make informed decisions in high-stress situations.

Therefore, health system factors and individual factors such as age, education, and training significantly shape the practices of nurses in resuscitating casualties involved in road traffic accidents. Accessible resources, optimal staffing, and conducive infrastructure empower nurses to deliver high-quality care efficiently. Conversely, limitations in these factors may challenge nursing practices, potentially resulting in compromised care, delays, or adaptations based on resource availability. Individual factors contribute variability, influenced by the unique experiences and professional contexts of nurses.

Ufashingabire *et al,* (2023), revealed that the practices of nurses in resuscitating casualties involved in road traffic accidents are of paramount importance. Rapid response, evidence-based interventions, teamwork, and adaptability are foundational aspects of their practice in these high-stress situations. The ability to act swiftly, employ evidence-based care, collaborate effectively, and adapt to the ever-changing nature of RTA resuscitations ensures that casualties receive the best possible care (Mahmood *et al,* 2021).

Nurses, through their practices, play a vital role in reducing mortality rates and enhancing the prospects of survival and recovery for RTA victims. Their commitment to excellence and unwavering dedication to these practices make them indispensable in the realm of emergency care for RTA casualties.

2.4 Summary of Literature

The literature review examines the knowledge, attitudes, and practices of nurses in resuscitating casualties involved in road traffic accidents (RTAs). It explores various aspects of this critical area, focusing on both global and regional perspectives. The review highlights the significance of RTAs as a major public health problem worldwide, with a special focus on their impact on low- and middle-income countries, where a disproportionate number of casualties occur.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

It is comprised of study design, population, sampling, sampling strategy, sample size, data collection, data analysis, ethical considerations, data management, dissemination plan for results, limitations and challenges

3.1 Study design

The study was a cross-sectional descriptive study design to describe the nurses' knowledge, attitude and practice of resuscitating casualties involved in accidents. The study also adopted a quantitative and qualitative data collection method.

3.2 Study setting and rationale

The study was mainly focused on the knowledge, attitudes and practices of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward, Mulago National Referral Hospital Uganda. Geographically, it is positioned approximately 5 kilometres (about 3 miles) to the north of Mulago National Referral Hospital, along the Kampala Gulu Highway.

Furthermore, this location is approximately 8 kilometres (approximately 5 miles) north of the central business district of Kampala city. The precise geographical coordinates of the hospital are as follows: Latitude 0.361944 and Longitude 32.561389.

3.3 Population

The population of the study consisted of 40 nurses working in accident and emergency Ward at Mulago National referral hospital.

3.4 Sampling procedure

The study considered purposive sampling technique to select nurses working in accident and emergency Ward at Mulago National referral hospital. Purposive sampling ensured that the sample consists of individuals who can offer meaningful perspectives and data on the specific topic under investigation.

3.5 Sample Size

The researcher used a sample size of 36 nurses who were selected based on Krejcie and Morgan (1970), sampling guidelines using the following formula to determine sampling size:

$S = X^2NP\ (1-P)/\ d^2\ (N-1) + X^2P(1-P)$

S = required sample size

X^2 = the table value of chi-square for one degree of freedom at the desired confidence level

N = the population size

P = the population proportion (assumed to be .50 since this would provide the maximum sample size)

d = the degree of accuracy expressed as a proportion (.05)

3.6 Eligibility criteria

3.6.1 Inclusion Criteria

Registered nurses currently working in accident and emergency Ward at Mulago National Referral Hospital was involved in the study. Those that were willing to participate in the study and provided informed consent were included in the study.

3.6.2 Exclusion Criteria

Nurses who were not registered, not officially employed by Mulago National Referral Hospital, were not considered for the study. Registered nurses who refused to consent for participation in the study or those who were mentally sick were left out.

3.7 Data Collection Procedure

The data collection process involved conducting one-on-one interviews using a structured questionnaire to gather information from the respondents. The questionnaire was administered by the interviewer.

The study also employed an observation checklist as a systematic tool to gather data. This structured instrument, were designed with clear and measurable criteria, and utilized during direct observations in the healthcare setting. The checklist centred on key indicators, such as adherence to established resuscitation protocols, communication skills, response time, and the effective utilization of available resources.

3.9 Data Quality Control

3.9.1 Validity

To increase internal validity in research, the researcher ensured careful study planning and adequate quality control and implementation strategies, including adequate recruitment strategies, data collection, data analysis and sample size. The questionnaire included only relevant questions that measure known indicators of the subject.

3.9.2 Reliability

The researcher ensured quality data collection and any errors made were identified and corrected immediately in the field. Accuracy was also emphasized during data management.

3.10 Data presentation and Analysis

Initially, the collected data were cleaned to identify and rectify any errors, missing values, or inconsistencies in the data set. Numerical codes were assigned to the data for ease of analysis, especially in cases where responses were categorical. Basic descriptive statistics were computed to provide an overview of the data. Frequency distributions were created to illustrate the distribution of responses for different questions in the questionnaire.

The data were presented in charts, graphs, and tables to communicate findings effectively. Statistical software packages such as SPSS and Excel were used to perform quantitative analyses. Categorical data were presented descriptively in themes.

3.11 Ethical Considerations

The study sought ethical approval from King Ceasor University Higher Degrees Research and Ethics Committee (KCU-HDREC).

Permission to access the respondents was obtained from Mulago National Referral Hospital, and informed consent was obtained from all study participants. They were provided with detailed information about the study's purpose, procedures, and potential risks.

All data collected from participants were treated with the utmost confidentiality. Personal identifiers were removed from transcripts, and data were stored securely to protect the privacy of the participants.

Participants were free to decline their participation in the study or withdraw from it at any time without fear of retribution from the researcher.

The study ensured equitable access to the research opportunity and considered the potential benefits to the participants.

Codes were used instead of participants' names, and strict confidentiality was maintained throughout the study.

3.12 Limitations

This was a cross-sectional study, so the results might not explain the causality nor give solution. Researcher's time constraint was related to busy and tight schedule for the training institution and work. However, the researcher ensured that schedule was planned and followed according to available time.

3.13 Dissemination Plan.

A copy of the results will be submitted to King Ceasor University library for utilization by students and staff. Conferences and seminars will be organized at National and international levels. Sensitization of health workers will be ensured, about resuscitation of casualties involved in road traffic accidents, for better management. Research publication will also be done in different peer reviewed journals.

CHAPTER FOUR: RESULTS

4.0. Introduction

This chapter presents the findings that were generated from interactions on knowledge, attitudes and practices of nurses in resuscitating casualties involved in road traffic accidents in Accident and Emergency Ward, of Mulago National Referral Hospital. The study was based on the study objectives which were to assess the knowledge, attitudes and practices of nurses in resuscitating casualties involved in Road traffic accidents, at Mulago National Referral hospital, in accident and emergency ward.

4.1 Response rate

Table 1: Showing Response rate

Instrument	Issued out (F)	Filled	Percent (%)
Questionnaire	**36**	**36**	100%

Table 3 shows the distribution of the respondents according to the instruments used by the researcher that, all the targeted respondents 36(100.0%) participated by answering the questionnaires. The outcome from the table shows an effective and influential participation that depicted a successful data collection leading to compilation of a report with enough information.

4.2 Demographic characteristics of the Respondents

The findings of this study reveal distinct patterns in the age distribution of the surveyed population. Within the age bracket of 30 to 40, there is a modest representation, accounting for 24(66.7%) of the surveyed individuals. In contrast, a substantial 7(19.4%) of the respondents fall within the age range of 20 to 30. Furthermore, the data reveals that individuals aged above 40 constitute a smaller but significant proportion of 5(13.9%.)

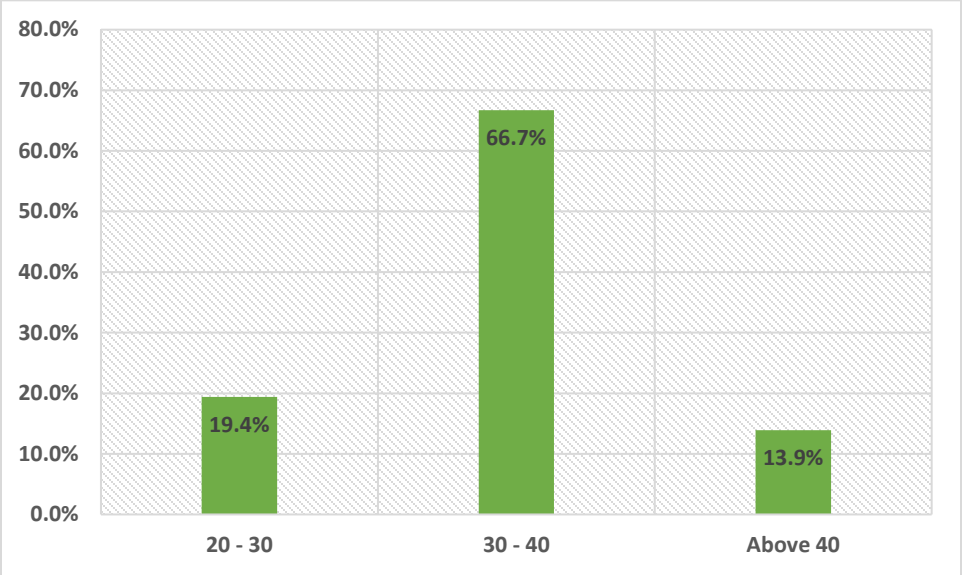


Figure 2: Age group

The results also indicate a notable gender disparity, with predominant 29(80.6%) of the respondents identified as female and 7(19.4%) identified as male. This calls the need of recruiting male nurses in the healthcare professionals. This is illustrated in the figure below.

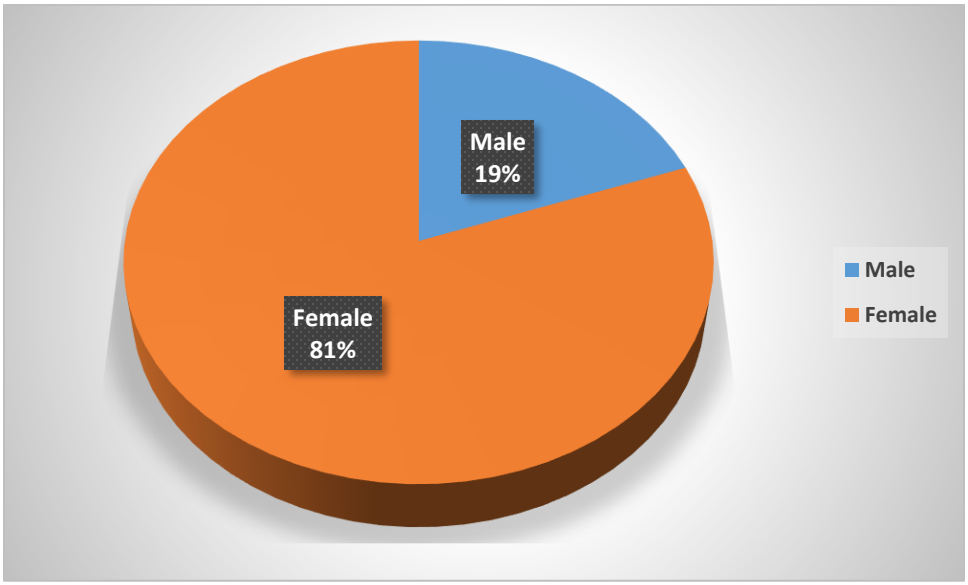


Figure 3: Gender of the respondents

Among the respondents, the majority hold a Diploma level of education, constituting 21(58.3%) of the participants. Following this, 13(36.1%) holds a Bachelor's Degree and only 2(5.6%) of the participants possess a Master's Degree. Having the majority with diploma, there is a need of more nurses to go for further studies for both degree and masters in their healthcare professional and trainings in specialised courses.

Table 2: **Level of Education**

Indicator	Frequency	Percentage
Diploma	21	58.3%
Bachelor's Degree	13	36.1%
Master's Degree	2	5.6%
Total	36	100.0%

The majority of participants, constituting 20(55.6%), had more than 10 years of experience. Following this, 12(33.3%) of participants have 6 to 10 years of experience, and 4(11.1%) have 1 to 5 years of experience.

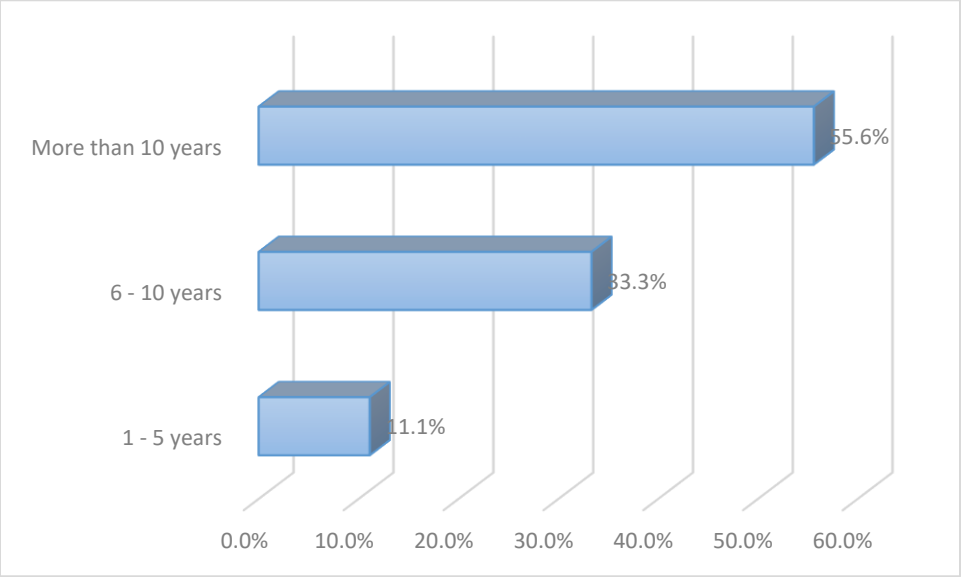


Figure 4: **Years of Experience**

The data also revealed a balanced distribution among the participants concerning specific training on the management of trauma patients involved in road traffic accidents at the Accident and Emergency Ward of Mulago National Referral Hospital. Half of the participants, accounting for 18(50.0%), had received specific training on the management of trauma patients in road traffic accidents. In contrast, the other 18(50.0%) had not undergone such specialized training. Having half of the Nurses,had received specific training on the Accident and Emergency management gives a need for nurses to be trained in specialised and short courses.

Table 3: Specific training on the management of trauma patients in road traffic accidents

Category	Frequency	Percentage
Yes	18	50.0%
No	18	50.0%

4.3 Knowledge of Nurses in Resuscitating Casualties Involved in Road Traffic Accidents

Among the participants,22(61.1%) demonstrated knowledge in key aspects related to cardiopulmonary resuscitation (CPR) for adult casualties. Conversely, 14(38.9%) of the participants indicated a lack of knowledge in these critical areas. The data on the knowledge of the correct compression-to-ventilation ratio for CPR in adult casualties reveals that a substantial majority of participants, 31(86.1 %) demonstrated awareness of this critical aspect. In contrast, 5(13.9%) of the participants indicated a lack of knowledge regarding the appropriate compression-to-ventilation ratio for CPR in adult casualties. Majority of participants 31(86.1%) possessed knowledge regarding signs of airway obstruction while 5(13.9%0 did not. About 25(69.4%) of participants had knowledge regarding the recommended depth of chest compressions during CPR for an adult casualty while 11(30.6%) did not. As the majority possess knowledge regarding resuscitation and CPR, there should be regular refresher courses and CMEs to keep nurses with the up todate knowledge. These findings are summarized in table 4 below.

Table 4: Knowledge of Nurses in Resuscitating Casualties Involved in Road Traffic Accidents

Category	Have Knowledge		Have No Knowledge	
	Frequency	%age	Frequency	%age
What is the correct compression- to-ventilation ratio for CPR in adult casualties?	31	86.1%	5	13.9%
Which of the following is NOT a sign of airway obstruction?	31	86.1%	5	13.9%
What is the recommended depth of chest compressions during CPR for an adult casualty?	25	69.4%	11	30.6%
Which of the following is NOT a common symptom of shock in a casualty involved in a road traffic accident?	23	63.9%	13	36.1%
When applying a tourniquet to control severe bleeding, where should it be placed?	21	58.3%	15	41.7%
Which of the following is NOT a recommended method for clearing the airway of a casualty?	20	55.6%	16	44.4%
What is the purpose of the recovery position for an unconscious casualty?	17	47.2%	19	52.8%
Which of the following is NOT a recommended step when managing a casualty with suspected spinal injury at the scene of a road traffic accident?	25	69.4%	11	30.6%
What is the correct sequence of actions in the "ABCDE" approach to trauma assessment?	31	86.1%	5	13.9%
Which of the following statements about the use of a bag-valve-mask (BVM) device during CPR is correct?	14	38.9%	22	61.1%
What is the recommended ratio of chest compressions to ventilations when performing CPR on a child casualty	15	41.7%	21	58.3%
When assessing a casualty's breathing, which of the following should be considered as normal respiratory rate for an adult?	31	86.1%	5	13.9%
What is the recommended method for controlling external bleeding from a wound?	34	94.4%	2	5.6%
Which of the following is NOT a common symptom of a head injury in a casualty involved in a road traffic accident	35	97.2%	1	2.8%

How should a nurse assess a casualty's responsiveness using the AVPU scale?	1	2.8%	35	97.2%
What is the recommended position for a casualty with a suspected pelvic injury?	5	13.9%	31	86.1%
Which of the following statements about the use of automated external defibrillators (AEDs) is correct?	14	38.9%	22	61.1%
When assessing the level of consciousness in a casualty using the Glasgow Coma Scale (GCS), which response would earn the highest score for eye opening?	30	83.3%	6	16.7%
Average Knowledge	36	62.1%		38.9%

4.4 Attitude of Respondents towards Resuscitation of RTA Casualties

When asked about feeling adequately prepared to handle accident-related emergencies in their current roles, a majority of nurses 20(55.6%) expressed agreement, with 9(25.0%) strongly agreeing. However, it's notable that 7(19.4%) disagreed or were unsure. In terms of the general attitude towards promptly responding to RTA emergencies, 11(30.6%) agreed and 9(25.0%) strongly agreed, a substantial proportion 9(25.0%) also disagreed or were unsure. Regarding the perception of resuscitation as a crucial aspect of their professional responsibility, a significant majority of nurses 25(69.4%) either agree or strongly agree. However, 11(31.1%) disagree, are unsure, or have a neutral stance. In terms of teamwork and effective communication during emergency resuscitation procedures, the data is more positive. A substantial majority of nurses 83.4% either agree or strongly agree that there is a culture of teamwork and effective communication. The general findings regarding attitude of nurses towards resuscitation of RTA casualties are summarised in the table below.

Table 5: Attitude of Respondents Towards Resuscitation of RTA Casualties

Knowledge	SD		D		NS		A		SA	
	F	%	F	%	F	%	F	%	F	%
I feel adequately prepared to handle accident-related emergencies in my current role	0	0.0%	4	11.1%	3	8.3%	20	55.6%	9	25.0%
Nurses at Mulago National Referral Hospital possess a positive attitude towards promptly responding to road traffic accident emergencies.	0	0.0%	7	19.4%	9	25.0%	11	30.6%	9	25.0%
Nurses perceive resuscitation of road traffic accident victims as a crucial aspect of their professional responsibility	0	0.0%	2	5.6%	9	25.0%	13	36.1%	12	33.3%
There is a culture of teamwork and effective communication among nurses during emergency resuscitation procedures.	1	2.8%	1	2.8%	4	11.1%	15	41.7%	15	41.7%
Nurses believe that a strong foundation in Basic Life Support (BLS) is essential for successful patient outcomes in emergency situations.	1	2.8%	1	2.8%	7	19.4%	6	16.7%	21	58.3%
The nurses demonstrate confidence in their ability to execute effective resuscitation techniques during high-stress emergency situations	0	0.0%	2	5.6%	4	11.1%	14	38.9%	16	44.4%

4.5 Practices of Respondents Regarding Resuscitation of RTA Casualties

The study results reveal that the majority of nurses 20(55.6%) at Mulago National Referral Hospital encounter road traffic accident casualties frequently in their nursing practice. An additional 14(38.9%) reported encountering road traffic accident casualties on a weekly basis. On the other hand, a smaller percentage of nurses reported encountering road traffic accident casualties on a monthly basis 1(2.8%), while an equal proportion mentioned rare occurrences 1(2.8%).As it is revealed that the majority of

nurses encounter road traffic accidents casualties frequently, there is a need of recruiting more nurses in the unit to make the work move smoothly. The graph below summarises these findings.

4.5.1 Frequently of Encountering Road Traffic Accident Casualties in Nursing Practice.

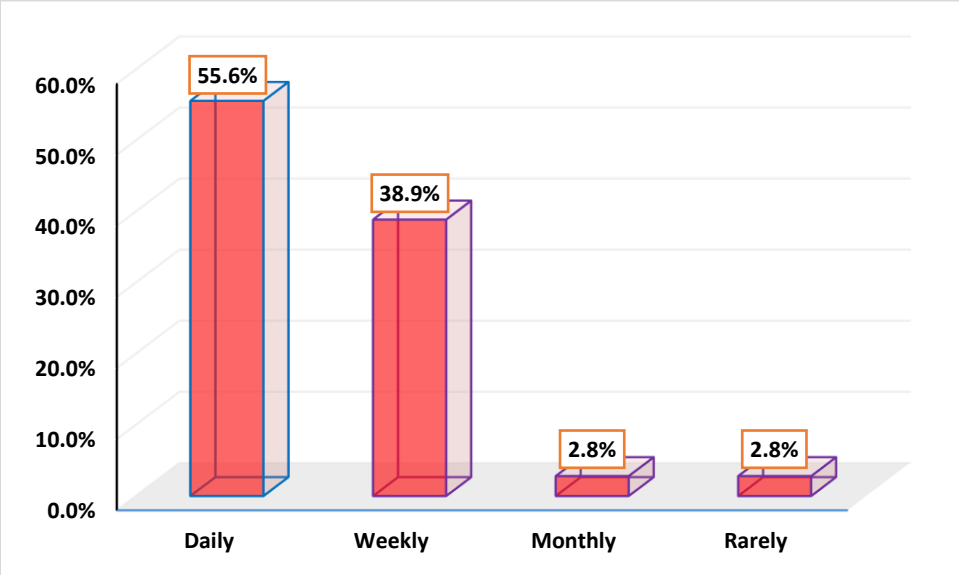


Figure 5: Frequently of encountering road traffic accident casualties in nursing practice

In relation to monitoring signs of deterioration in a casualty with suspected internal bleeding, only 12(33.3%) of the respondent's demonstrated ability, while a significant majority of 24(66.7%) lacked this understanding. Only 1(2.8%) of the nurses exhibited ability in this area, while a striking 35(97.2%) demonstrated a lack of understanding. A substantial 33(91.7%) of respondents demonstrated knowledge in this area, indicating a strong awareness of appropriate pain management strategies. Regarding hand hygiene practices, the results show that 21(58.3%) of nurses ensure proper hand hygiene before and after providing care to a casualty. However, there is still room for improvement as 15(41.7%) could not do hand hygiene appropriately. In assessing and managing a casualty's neurological status during the initial assessment, 15(41.7%) of nurses demonstrated knowledge in this area. However, a significant proportion 19(52.8%) lacked understanding. Regarding controlling bleeding in a casualty with an impaled object, only 11(30.6%) of nurses exhibited knowledge, while

23(63.9%) lacked understanding. Managing bleeding from impaled objects requires specific techniques to prevent further injury and control bleeding effectively. These findings are summarized in table 6 below.

Table 6: **Practices of Respondents Regarding Resuscitation of RTA Casualties**

Category	**Have Knowledge**		**Have No Knowledge**	
	Frequency	**% age**	**Frequency**	**% age**
When providing care to a casualty with suspected internal bleeding, how do you monitor for signs of deterioration?	12	33.3%	24	66.7%
How do you assess and manage a casualty's circulation during initial assessment?	1	2.8%	35	97.2%
What is your approach to managing pain in a conscious casualty with multiple injuries?	33	91.7%	3	8.3%
How do you ensure proper hand hygiene before and after providing care to a casualty?	21	58.3%	15	41.7%
In what circumstances would you initiate rapid sequence intubation (RSI) for airway management in a casualty	28	77.8%	8	22.3%
How do you assess and manage a casualty's neurological status during initial assessment?	15	41.7%	21	58.4%
What is your approach to controlling bleeding in a casualty with an impaled object?	11	30.6%	25	69.5%
When providing care to a casualty with burns resulting from an RTA, what is your immediate action	28	77.8%	8	22.3%
How do you assess and manage a casualty's breathing during initial assessment?	27	75.0%	9	25.0%
When providing initial care to a casualty with suspected head trauma, what action do you take to prevent further injury?	28	77.8%	8	22.3%
In what position do you place an unconscious casualty with no suspected spinal injury?	29	80.6%	7	19.5%

When providing care to a casualty with suspected spinal injury, how do you ensure proper spinal immobilization during movement?	31	86.1%	5	13.9%
When administering intravenous (IV) medication during resuscitation, how do you verify the correct medication and dosage?	21	58.3%	15	41.7%
Which of the following is a proper technique for applying a cervical collar to a casualty with suspected spinal injury?	6	16.7%	30	73.4%
How do you communicate critical information during resuscitation efforts?	15	41.7%	21	58.4%
How do you approach the assessment and management of a casualty with suspected internal injuries?	26	72.2%	10	27.8%
What measures do you take to prevent hypothermia in a casualty with severe external bleeding?	32	88.9%	4	11.2%
How do you prioritize care in a multiple casualty scenario?	29	80.6%	7	19.5%
Average Practice	36	60.7%		39.3%

From the study findings, it was revealed that a notable majority of nurses (83.3%) rated their overall performance in resuscitating RTA casualties positively, with 36.1% describing it as excellent and 47.2% as good. A smaller proportion, 16.7%, perceived their performance as average. This is highlighted in the table below.

Table 7 Rating of Nurse's Overall performance in resuscitating RTA casualties

Rate	Frequency	Percentage %
Excellent	13	36.1%
Good	17	47.2%
Average	6	16.7%
Total	36	100.0

4.5 Findings by the checklist on practices

Findings revealed that all nurses 36 (100%) consistently followed established protocols and guidelines when managing trauma patients. However, of those, only 13(35.7%) were able to perform high-quality CPR according to current guidelines during resuscitation efforts. A similar percentage participated in debriefing sessions following trauma resuscitations to identify areas for improvement. Only 10(28%) of the respondents could recognize and promptly intervene in life-threatening conditions such as tension pneumothorax. Highlighting the importance of ongoing training and reinforcement of best practices to enhance the quality of emergency care provided. These findings are summarized in table 8 below.

Table 8: Findings from the Observations Checklist

Observations	YES		NO		Not Applicable	
	Frequency	%	Frequency	**%**	Frequency	**%**
1. Consistently follows established protocols and guidelines when managing trauma patients.	36	100.0	0	0.0	0	0.0
2. Effectively prioritizes tasks during the initial assessment and resuscitation of trauma patients.	36	100.0	0	0.0	0	0.0
3. Ensures proper airway management, including maintenance of cervical spine immobilization when indicated.	36	100.0	0	0.0	0	0.0
4. Performs high-quality CPR according to current guidelines during resuscitation efforts.	16	35.7	0	0	20	64.3
5. Demonstrates proficiency in controlling external haemorrhage using appropriate techniques.	36	100.0	0	0.0	0	0.0
6. Successfully establishes IV access and administers fluids as needed during trauma resuscitation.	36	100.0	0	0.0	0	0.0
7. Recognizes and promptly intervenes in life-threatening conditions such as tension pneumothorax.	14	28.6	0	0	22	71.4
8. Communicates effectively with other team members during trauma resuscitation efforts.	36	100.0	0	0.0	0	0.0
9. Provides appropriate reassurance and support to trauma patients and their families during resuscitation efforts.	21	64.3	14	28.6	1	7.1
10. Actively participates in debriefing sessions following trauma resuscitations to identify areas for improvement.	17	35.7	18	57.1	1	7.1

CHAPTER FIVE: DISCUSSION OF RESULTS, CONCLUSION AND RECOMMENDATIONS

The findings of this study revealed that a majority of the respondents 29(80.6%) were female and 7(19.4%) were male. Most of the respondents 24(66.7%) were aged between 30 to 40 years. These findings are close to the findings of an Ethiopian study where females made up slightly more than half of the respondents 52.9%, and their ages ranged from 24 to 48 years old (Nigatu et al, 2022). Mithiani et al in a Kenyan study also revealed similar findings as the majority of the respondents 64% were female while 36% were male, with a major portion 82% aged between 21- 40 years. This reflects a trend in African hospitals with a predominance of young-to-middle-aged females and a call for more male nurses' in the healthcare profession.

The highest percentage of respondents 21(58.3%) were diploma holders followed by 13(36.1%) who were bachelor's degree holders. Rutto K Japeth, 2012 reports similar findings as a majority 44.1% of the nurses held 26 diploma nursing qualifications, 23 (33.8%) had higher diplomas, 10 (14.7%) had degree and 5 (7.4%) had certificates in nursing. However, on the contrary, findings by Nigatu et al, 2022 revealed that about 90.2% of the respondents had a BSc degree. Majority 55.6% had more than 10 years of experience followed by 33.3% who had 6-10 years of experience. This is contrary with the findings of Nshutiyukuri et al 2020, where most of the participants (29/56.9%) had less than one year experience and only 22(43.1%) had more than one year.

The overall knowledge was good regarding resuscitation of RTA patients 22.4(62.1%). Half 18(50.0%) had received specific training on the management of trauma. These findings are consistent with the findings of a study conducted in Iraq reported that most of the nurses had received prior training on emergency management of accident victims. The study further revealed that a significant majority 26

(72%) knew how to quickly assess the injured victim of RTA and what to assess immediately.

Furthermore, a majority 31(86.1%) demonstrated knowledge on CPR resuscitation and 25(69.4%) knew the recommended depth of chest compressions during CPR for an adult casualty. Continuous education and training are essential in fostering emergency care among nurses. Moreover, a study by Munezero et al., 2018 on the assessment of nurses' knowledge and skills following cardiopulmonary training, the average score prior to instruction was 53.8% for knowledge and 82.5% following CPR training. In this study therefore, half of the nurses lacked specific training in resuscitating patients with trauma/injuries, highlighting a potential gap between knowledge and preparedness for RTA cases.
Likewise, 31(86.1%) had knowledge on the ABCDE approach to trauma assessment. In agreement with these findings, a Rwandan study highlights strong knowledge among nurses 88% in Rwanda regarding quick assessment of RTA victims based on the ABCDE approach. However, on the contrary, a study by Nigatu et al, 2022 reported low level of knowledge as the participants' overall knowledge of airway and breathing management was 45.1%. Generally, nurses' knowledge on trauma assessment using ABCDE shows variation across studies, highlighting a need for standardized training to ensure consistency and uniformity in resuscitating of victims of RTAs.

Unfortunately, very few 1(2.8%) of the respondents had knowledge in assessing a casualty's respondents using the AVPU scale. Although Romanelli et al, 2022 reported that no formal training is necessary for use of this scale, orienting nurses on how it is used remains essential. In fact, Haldar et al, 2020 noted that the AVPU was simpler for nurses to implement. Therefore, a low knowledge rate of the AVPU scale among nurses suggests a need for improved training on basic but crucial assessment tools, potentially improving patient care during critical moments.

In addition to a lack of sufficient knowledge on the AVPU use, majority did not demonstrate knowledge on the use of Automated External Defibrillators (AEDs). On the contrary, a study by Kozamani et al., 2016 reported that 71.4% of the participants had a basic life support and AED training; however, only 37.8% of the nurses reported that they would use the AED. Rutto K Japeth, 2012 also reported that 61.2% nurses had been trained in advance cardiac life support (ACLS) and 25% in accident and emergency nursing. Highlighting the inconsistency across studies, these findings suggest a need for not only improved training on AED use but also addressing potential hesitations among nurses to utilize this life-saving equipment.

The findings further reveal that 30(83.3%) had knowledge on the assessing the level of consciousness in a casualty using the Glasgow Coma Scale (GCS). These findings dispute the findings by Singh et al 2016 where results showed that 55.56% of nurses had poor knowledge followed by 41.48% and 2.96% with satisfactory knowledge and good knowledge, respectively at the emergency department. The disparity between these studies highlights the need for standardized training programs and knowledge assessments to ensure all nurses possess the essential skills to effectively assess and manage road traffic accident victims.

The general attitude of nurses towards resuscitation of RTA patients was positive as majority 20(55.6%) expressed agreement while 9(25.0%) strongly agreed on whether they felt adequately prepared to handle accident-related emergencies. Nshutiyukuri et al 2020 in a study conducted in Rwanda, as well reported that a majority of the respondents (73.657%) had a positive attitude towards emergency management of RTA patients. Majid et al., 2019 in their study also found that a majority of nurses expressed positive attitudes towards cardiopulmonary resuscitation. On the contrary, Hendy et al., 2023 in a study mong paediatric nurses reported negative attitude among nurses 63.1% in relation

to cardiopulmonary resuscitation.

The nurses' practices regarding resuscitating RTA casualties was 22(60.7%) On the contrary, a study conducted in Namibia revealed that the practice of CPR among respondents was poor. In addition 34% of the respondents used the same procedure to administer CPR to children and adults despite the age difference (Tomas & Kachekele, 2023). And a majority 80.6% appropriately prioritized care in a multiple casualty scenario. However others made training to improve on their skills.

Regarding management of a casualty breathing during initial assessment, 27(75%) showed proper management. This is contrary to the findings of Hendy et al, (2020), who reported that for assessing the responsiveness and breathing of children, less than 40.2% new how to use the machine and 40.1% had never used it. This marks differences in resuscitation procedures.

Furthermore, only 1(2.8%) assessed and managed a casualty's circulation during initial assessment and only 13(35.7%) performed high quality CPR according to current guidelines during resuscitation efforts, despite all respondents reporting following established protocols and guidelines when managing trauma patients. Similarly in a study conducted in Namibia it was reported that the practice of CPR among respondents was poor.

However, in Nigeria, a study conducted at Babcock University teaching hospital, 78.5% of the of the participants had performed cardio pulmonary resuscitation on patients in cardiac emergencies and the mean score for level of practice of CPR among nurses was 14.9% which fell within the range of good practice (Margaret Ihunanya et al., 2020). The overall practice scores and gaps identified, suggest a need for improved training and practical skill development for nurses to ensure they can effectively

resuscitate RTA casualties based on best practices and appropriate variations for different age groups.

CONCLUSION.

In conclusion, this study findings present a significant understanding of nurses' knowledge, attitudes, and practices regarding the resuscitation of road traffic accident (RTA) casualties across different African regions. While majority of nurses demonstrated a high level of knowledge and positive attitudes towards managing RTA emergencies, there are evident gaps in practice, particularly in the consistent application of established protocols and guidelines. Furthermore, addressing these gaps requires not only theoretical knowledge but also practical skill development, emphasizing hands-on training and regular competency assessments to enhance nurses' preparedness in managing RTA casualties effectively and efficiently.

RECOMMENDATIONS

- Various stakeholders such as Uganda's Ministry of Health, Hospital Administration and Civil Society Organisation, should promote the implementation of comprehensive and standardized training programs, focused on trauma management and resuscitation techniques, tailored to the specific contexts and needs of nurses in African healthcare settings.
- These programs should prioritize hands-on training and simulation exercises to bridge the gap between theoretical knowledge and practical application such as CPR, trauma assessment, and management of life-threatening conditions.

- The ministry of healthy together with professional bodies should organise continuous professional development opportunities for nurses such as Emergency management, Advanced

Life Support to reinforce their skills and ensure up-to-date knowledge and skills in management of trauma.

- The Government should mobilise funds for sponsoring nurses to specialise in programs such as Accident and Emergency Resuscitation, Advanced life support, critical care, that equip them with knowledge in their profession to enhance the overall quality of care provided to RTA casualties in healthcare systems.

REFERENCES

Abate, H., & Mekonnen, C. (2020). Knowledge, practice, and associated factors of nurses in pre-hospital emergency care at a Tertiary care teaching hospital. *Open Access Emergency Medicine*, 459-469.

Abegaz, T., & Gebremedhin, S. (2019). Magnitude of road traffic accident related injuries and fatalities in Ethiopia. *PloS one*, *14*(1), e0202240.

Abuhassna, H., Al-Rahmi, W. M., Yahya, N., Zakaria, M. A. Z. M., Kosnin, A. B. M., & Darwish, M. (2020). Development of a new model on utilizing online learning platforms to improve students' academic achievements and satisfaction. *International Journal of Educational Technology in Higher Education, 17*, 1-23.

Aguru, B. N. (2022). *Does the Health Belief Model and Health Locus of Control Help Explain the Decision of Nigerian Immigrants and Nigerian Natives to Receive the Influenza Vaccination?* (Doctoral dissertation, Capella University).

Akhtar, J. & Chaudhry, Z. U. (2012). Initial assessment and management of trauma patients: Speaking a common language. *Journal of the College of Physicians and Surgeons Pakistan*, 22, 199-200.

Althubaiti, A. Q. A., Altowairqi, R. M., Alsulimani, F. A., & Alnefaie, B. M. (2019). Awareness, knowledge, attitude and practices of first aid skills among medical and non-medical students at Taif University. *Middle East Journal of Family Medicine*, *17*(11).

Ashcraft, S., Wilson, S. E., Nyström, K. V., Dusenbury, W., Wira, C. R., and Burrus, T. M., (2021). Care of the patient with acute ischemic stroke (prehospital and acute phase of care): *A*

scientific statement from the American Heart Association. Stroke, update to the 2009 comprehensive nursing care scientific statement: American Heart Association Council on Cardiovascular and Stroke Nursing and the Stroke Council. *52*(5), e164-e178.

Basak S., Petpichetchian W., Kitrungrote L. (2019). Knowledge and attitudes of nurses and their practices regarding post-operative pain management in Bangladesh

Basak, S. (2019). *Knowledge and attitudes of nurses and their practices regarding post-operative pain management in Bangladesh* (Doctoral dissertation, Prince of Songkla University).

Campbell, A. R., Layne, D., Scott, E., & Wei, H. (2020). Interventions to promote teamwork, delegation and communication among registered nurses and nursing assistants: An integrative review. *Journal of Nursing Management*, *28*(7), 1465-1472.

Dulo, G. (2020). *Knowledge of and compliance to cardiopulmonary resuscitation guidelines by healthcare practitioners' at the accident & emergency unit, Kenyatta National Hospital* (Doctoral dissertation, University of Nairobi).

Egelund, G. B., Jensen, A. V., Petersen, P. T., Andersen, S. B., Lindhardt, B. Ø., Rohde, G., ... & Von Plessen, C. (2020). Do-not-resuscitate orders in patients with community-acquired pneumonia: a retrospective study. *BMC Pulmonary Medicine*, *20*, 1-8.

Escarlan, R. A., & Tabalbag, V. (2023). Nurses' Competence in Adult Cardiopulmonary Resuscitation: a descriptive literature review.

Hosseinpour, M., Akbar, R. E., Jahromi, M. F., & Badiyepeymaiejahromi, Z. (2023). The effect of interventional program underpinned by health belief model on awareness, attitude, and

performance of nurses in preventing nosocomial infections: A randomized controlled trial study. *Investigación y Educación en Enfermería*, *41*(3).

Khorasani Z, D., Dehghani Tafti, A., Nasiriani, K., Hajimaghsoudi, M., Fallahzadeh, H., & Eftekhari, A. (2023). Development and Psychometric Evaluation of Traffic-Related Pre-hospital Mortality Prevention Questionnaire. *Journal of Research and Health*, *13*(4), 291-302.

Koome, G., Atela, M., Thuita, F., & Egondi, T. (2020). Health system factors associated with post-trauma mortality at the prehospital care level in Africa: a scoping review. *Trauma Surgery & Acute Care Open*, *5*(1).

Lam, N. N., Huong, H. T. X., & Tuan, C. A. (2019). Preparation for major burns incidents: evaluation of continuing medical education training courses for professionals. *Annals of burns and fire disasters*, *31*(4), 322.

Madar, R., Adini, B., Greenberg, D., Waisman, Y., Eshkoli, T., Newman, N., & Goldberg, A. (2022). Physician and nurses' perception of paediatric trauma care in Israeli emergency departments. *Nursing in critical care*, *27*(1), 55-65.

Mahmood, A., Aftab, A., & Shafiq, M. (2021). Knowledge, Attitude and Practice of Healthcare Providers regarding the Blast injuries management at Tertiary care hospitals in Karachi, Pakistan.

Manono, B. K. (2022). *Health Care Providers' Knowledge, Skills and Institutional Factors that Determine Effective Cardiopulmonary Resuscitation at Nakuru County Hospital* (Doctoral dissertation, JKUAT-COHES).

Marufu, T. C., Collins, A., Vargas, L., Gillespie, L., & Almghairbi, D. (2021). Factors influencing retention among hospital nurses: systematic review. *British Journal of Nursing*, *30*(5), 302-308.

Maseko, T. N., Huang, H. C., & Lin, K. C. (2021). Cervical cancer screening behavior of African women: The Rosenstock health belief model assessment. *Health Care for Women International*, *42*(7-9), 976-991.

Mersha, A. T., Egzi, A. H. K. G., Tawuye, H. Y., & Endalew, N. S. (2020). Factors associated with knowledge and attitude towards adult cardiopulmonary resuscitation among healthcare professionals at the University of Gondar Comprehensive Specialized Hospital, Northwest Ethiopia: an institutional-based cross-sectional study. *BMJ open*, *10*(9), e037416.

Mitra, S., Neki, K., Mbugua, L. W., Gutierrez, H., Bakdash, L., Winer, M., & Bhalla, K. (2021). Availability of population-level data sources for tracking the incidence of deaths and injuries from road traffic crashes in low-income and middle-income countries. *BMJ global health*, *6*(11), e007296.

Moon, H., & Hyun, H. S. (2019). Nursing students' knowledge, attitude, self-efficacy in blended learning of cardiopulmonary resuscitation: a randomized controlled trial. *BMC medical education*, *19*(1), 1-8.

Muni, K. M., Ningwa, A., Osuret, J., Zziwa, E. B., Namatovu, S., Biribawa, C., ... & Kobusingye, O. (2021). Estimating the burden of road traffic crashes in Uganda using police and health sector data sources. *Injury prevention*, *27*(3), 208-214.

Ndung'u, A., Ndirangu, E., Sarki, A., & Isiaho, L. (2022). A cross-sectional study of self-perceived educational needs of emergency nurses in two tertiary hospitals in Nairobi, Kenya. *Journal of emergency nursing*, *48*(4), 467-476.

Neeki, M., DuMontier, S., Toy, J., Archambeau, B., Goralnick, E., Pennington, T., & Plurad, D. (2021). Prehospital trauma care in disasters and other mass casualty incidents–a proposal for hospital-based special medical response teams. *Cureus*, *13*(3).

Nigatu, M., Debebe, F., & Tuli, W. (2022). Assessment of Knowledge, Practice, and Associated Factors Towards Airway and Breathing Management Among Nurses Working in the Emergency Departments of Selected Public Hospitals in Addis Ababa, Ethiopia: A Cross-Sectional Study. *Open Access Emergency Medicine: OAEM*, *14*, 235.

Nshutiyukuri, C., Bhengu, B. R., & Gishoma, D. (2020). An assessment of Nurses' knowledge, attitude and practice of emergency care related to road traffic accident victims at three selected hospitals in Rwanda. *African journal of emergency medicine*, *10*(3), 127-131.

Razzaghi A, Soori H, Abadi A, and Khosravi A. (2020). World Health Organization's estimates of death related to road trafc crashes and their discrepancy with other countries' national report. J Inj Violence Res.;12(3):39–44.

Rewakowski, C., Atav, S., Clancy, H., & MacPherson, M. (2021). Civic Engagement in Nursing: Measuring Participation, Reflecting on Influences, and Harnessing Momentum. *Journal of Community Health Nursing*, *38*(3), 161-172.

Robertson, C. S. (2019). Management of cerebral perfusion pressure after traumatic brain injury. *The Journal of the American Society of Anesthesiologists*, 95, 1513-1517.

Sadat, S. J., Khodayarian, M., & Vafaeenasab, M. (2022). Factors Affecting the Skill and Efficiency of Emergency Medical Service Staff in Mass Casualty Road Traffic Incidents: A Qualitative Study. *Journal of Clinical Care and Skills*, *3*(3), 97-104.

Schiefer, J. L., Schuller, H., Fuchs, P. C., Bagheri, M., Grigutsch, D., Klein, M., & Schulz, A. (2020). Basic life support knowledge in Germany and the influences of demographic factors. *Plos one*, *15*(8), e0237751

Solomon, E. M., Wing, H., Steiner, J. F., & Gottlieb, L. M. (2020). Impact of transportation interventions on health care outcomes: a systematic review. *Medical care*, *58*(4), 384-391.

Taylor, P., Hudson, D., Thomson, P., & Greenlees-Rae, J. (2021). Newly graduated registered nurses' evaluation of their preparedness, confidence and attitudes towards clinical assessments. *Journal of Clinical Nursing*, *30*(7-8), 929-941.

Ufashingabire, C., Soh, K. L., Rosliza Abdul, M., Mani, K. K., Ibrahim, B., Mohamed Dirie, A., & Soh, K. G. (2023). Effectiveness of first-aid education in road traffic crashes on non-healthcare professionals' knowledge, attitude, and skills: a systematic review. *International journal of injury control and safety promotion*, 1-8.

Uganda Police Force (UPF) Annual Report for 2021

Vinish, V., Chakrabarty, J., Vijayan, S., Kulkarni, M., Shashidhara, Y. N., Nayak, B. S., & George, A. (2020). First responder's care package on management of road traffic accident victims of Udupi: Study protocol. *Journal of Advanced Nursing*, *76*(7), 1812-1822.

Werunga, K. P., Sisenda, M., & Barasa, O. (2023). First aid for road traffic accident victims: knowledge and practice among the non-medical road users in Eldoret, Kenya. *Advance Research Journal of Medical and Clinical Science*, *9*(04), 1130-1135.

World Health Organization WHO (2022) Road traffic injuries. https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries

Zali, M., Rahmani, A., Powers, K., Hassankhani, H., Namdar-Areshtanab, H., Gilani, N., & Dadashzadeh, A. (2023). Nurses' Perceptions towards Resuscitated Patients: A Qualitative Study. *OMEGA-Journal of Death and Dying*, 003022282312126

APPENDICES

APPENDIX I: CONSENT FORM

Dear respondent,

I am ***AINEMBABAZI SYLIVIA,*** a student of King Ceasor University. I am conducting research on the topic of my study is "***KNOWLEDGE, ATTITUDE AND PRACTICES OF NURSES IN RESUSCITATING CASUALTIES INVOLVED IN ROAD TRAFFIC ACCIDENTS IN UDANDA: A CASE OF MULAGO NATIONAL REFERRAL HOSPITAL".***

Purpose: The purpose of this study is to examine the health workers' knowledge, attitude and practices of nurses in resuscitating casualties involved in road traffic accidents in accident and emergency ward, Mulago National Referral Hospital Uganda.

Procedures

An introduction letter King Ceasor University introducing the student will be taken to Mulago Research and Ethics which will later provide an approval letter allowing the researcher to go to the health workers at Mulago National Referral Hospital for data collection. The in charge will then introduce the researcher to the participants.

Risks

This is academic research which I do not think that has many risks. The only risk I can imagine is time lost by the participant

Benefits:

The study will offer crucial insights into the practices, attitude and knowledge levels of nurses dealing with road traffic accident casualties.

Confidentiality

All the information given in the research will be kept confidential. It will only be accessed by an authorized person

Compensation

For your time lost and inconveniences caused by the study procedures, a token of 10,000/= Uganda shillings will be compensated.

Voluntary Participation

You are voluntary free to join the study and withdraw at any time you feel that you cannot continue to be in the study

Contact person

In case of questions concerning the study, you may contact the researcher *Ainembabazi Sylivia*
+256 782732355

In case of questions concerning your rights as a participant, you may contact the Mulago Research and Ethics Committee Chairperson Dr. Jane Nakibuuka on +256772618111

Statement of consent

I have read the following information or it has been read to me.

I have had the opportunity to ask questions about it and my questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research

Name of participant: ……..……

Signature ……..…… Date ……..…

Name of researcher: ……

Signature ……..…… Date ……..…

APPENDIX II: QUESTIONNAIRE

STUDY TITTLE: KNOWLEDGE, ATTITUDES AND PRACTICES OF NURSES IN RESUSCITATING CASUALTIES INVOLVED IN ROAD TRAFFIC ACCIDENTS IN UGANDA: A CASE OF MULAGO NATIONAL REFERRAL HOSPITAL

Section A: Sociodemographic Information of Participants

Please respond by circling the letter against the option of your choice

1. Age……. **2. Sex** A) Male B) Female C) Others (Specify)……. **3. Level of Education** A) Diploma B) Bachelor's degree C) Master's degree D) PHD E) Others (Specify)…….	**4. Years of Experience** A) Less than 1 year B) 1-5 years C) 6-10 years D) More than 10 years **5. Department……**

Section B: Knowledge of Respondent on Resuscitation of RTA victims

Please respond by circling the letter against the option of your choice

No.	Question	Responses
1.	Have you received specific training on the management of	A) Yes B) No

	trauma patients in road traffic accidents?	
2.	What is the first step in assessing a casualty involved in a road traffic accident?	A) Checking for responsiveness B) Checking for breathing C) Checking for pulse D) Checking for major bleeding
3.	What is the correct compression-to-ventilation ratio for CPR in adult casualties?	A) 30 compressions to 2 ventilations B) 15 compressions to 2 ventilations C) 10 compressions to 1 ventilation D) 5 compressions to 1 ventilation
4.	Which of the following is NOT a sign of airway obstruction?	A) Stridor B) Wheezing C) Gurgling D) Clear breath sounds
5.	What is the recommended depth of chest compressions during CPR for an adult casualty?	A) 2-3 inches (5-7.5 cm) B) 4-5 inches (10-12.5 cm) C) 1-2 inches (2.5-5 cm) D) 6-7 inches (15-17.5 cm)
6.	Which of the following is NOT a common symptom of shock in a casualty involved in a road traffic accident?	A) Rapid heart rate B) Pale, cool, clammy skin C) Increased blood pressure D) Restlessness or confusion
7.	When applying a tourniquet to control severe bleeding, where should it be placed?	A) Below the wound B) Above the wound C) Directly on the wound D) Several inches away from the wound
8.	Which of the following is NOT a recommended method for clearing the airway of a casualty?	A) Head tilt-chin lift maneuver B) Jaw thrust maneuver C) Finger sweep to remove foreign objects D) Suctioning with a catheter or suction device
9.	What is the purpose of the recovery position for an unconscious casualty?	A) To maintain an open airway B) To minimize the risk of aspiration C) To prevent pressure ulcers D) To promote circulation to the brain
10.	Which of the following is NOT a recommended step when managing a casualty with	A) Maintaining neutral alignment of the spine B) Applying a cervical collar

	suspected spinal injury at the scene of a road traffic accident?	C) Moving the casualty to a more comfortable position D) Stabilizing the head and neck
11.	What is the correct sequence of actions in the "ABCDE" approach to trauma assessment?	A) Airway, Breathing, Circulation, Disability, Exposure B) Circulation, Airway, Breathing, Disability, Exposure C) Breathing, Airway, Circulation, Disability, Exposure D) Disability, Circulation, Airway, Breathing, Exposure
12.	Which of the following statements about the use of a bag-valve-mask (BVM) device during CPR is correct?	A) It should be used without an airway adjunct for optimal ventilation. B) It is most effective when used by a single rescuer. C) It delivers both oxygen and chest compressions simultaneously. D) It should be squeezed once every 10 seconds during CPR
13.	What is the recommended ratio of chest compressions to ventilations when performing CPR on a child casualty?	A) 15 compressions to 1 ventilation B) 30 compressions to 2 ventilations C) 5 compressions to 1 ventilation D) 10 compressions to 2 ventilations
14.	When assessing a casualty's breathing, which of the following should be considered as normal respiratory rate for an adult?	A) 6-12 breaths per minute B) 12-20 breaths per minute C) 20-30 breaths per minute D) 30-40 breaths per minute
15.	What is the recommended method for controlling external bleeding from a wound?	A) Applying direct pressure with a sterile dressing B) Elevating the affected limb above the heart C) Applying ice packs to the wound area D) Irrigating the wound with saline solution
16.	Which of the following is NOT a common symptom of a head injury in a casualty involved in a road traffic accident?	A) Loss of consciousness B) Confusion or disorientation C) Seizures D) Abdominal pain

17.	How should a nurse assess a casualty's responsiveness using the AVPU scale?	A) Asks questions to determine orientation B) Checks for pupil response to light C) Observes for spontaneous eye opening D) Applies painful stimuli to elicit a response
18.	What is the recommended position for a casualty with a suspected pelvic injury?	A) Supine with legs straight B) Prone with a pillow under the abdomen C) Semi-Fowler's position D) Supine with legs slightly bent and knees together
19.	Which of the following statements about the use of automated external defibrillators (AEDs) is correct?	A) AEDs can be safely used on casualties of all ages, including infants. B) AEDs should only be used by trained medical professionals. C) AEDs analyze the casualty's heart rhythm and deliver a shock if needed. D) AEDs are primarily used to treat bleeding and shock.
20.	When assessing the level of consciousness in a casualty using the Glasgow Coma Scale (GCS), which response would earn the highest score for eye opening?	A) Opens eyes spontaneously B) Opens eyes in response to verbal stimuli C) Opens eyes in response to painful stimuli D) Does not open eyes

Section C: Attitude of respondents towards resuscitation of RTA casualties

Please respond by ticking one answer in each line across as to how you feel about the following(1=strongly disagree, 2=disagree, 3=not sure, 4=agree, 5=strongly agree)

	Attitude					
1.	I feel adequately prepared to handle accident-related emergencies in my current role	**1**	**2**	**3**	**4**	**5**
2.	Nurses at Mulago National Referral Hospital possess a positive attitude towards promptly responding to road traffic accident emergencies.	**1**	**2**	**3**	**4**	**5**
3.	Nurses perceive resuscitation of road traffic accident victims as a crucial aspect of their professional responsibility	**1**	**2**	**3**	**4**	**5**

4	There is a culture of teamwork and effective communication among nurses during emergency resuscitation procedures.	**1**	**2**	**3**	**4**	**5**
5	Nurses believe that a strong foundation in Basic Life Support (BLS) is essential for successful patient outcomes in emergency situations.	**1**	**2**	**3**	**4**	**5**
6	The nurses demonstrate confidence in their ability to execute effective resuscitation techniques during high-stress emergency situations	**1**	**2**	**3**	**4**	**5**

Section D: Practices of respondent regarding resuscitation of RTA casualties

Please respond by circling the letter against the option of your choice

1.	How frequently do you encounter road traffic accident casualties in your nursing practice?	A) Daily B) Weekly C) Monthly D) Rarely
2.	When providing care to a casualty with suspected internal bleeding, how do you monitor for signs of deterioration?	A) Assess for changes in skin color and temperature B) Measure blood pressure every 15 minutes C) Check for external bleeding D) Ask the casualty about their pain level E) Do not monitor for signs of internal bleeding
3.	How do you assess and manage a casualty's circulation during initial assessment?	A) Check for a radial pulse B) Assess capillary refill time C) Measure blood pressure D) Assess skin temperature and moisture E) Do not assess circulation
4.	What is your approach to managing pain in a conscious casualty with multiple injuries?	A) Administer analgesics based on the casualty's pain scale rating B) Administer analgesics only after all injuries have been assessed C) Apply ice packs to numb the affected areas D) Provide distraction techniques to divert attention from pain E) Do not administer pain relief to conscious casualties

5.	How do you ensure proper hand hygiene before and after providing care to a casualty?	A) Wash hands with soap and water for at least 20 seconds B) Use alcohol-based hand sanitizer C) Wear gloves at all times to avoid hand contamination D) Rinse hands quickly under running water E) Do not practice hand hygiene
6.	In what circumstances would you initiate rapid sequence intubation (RSI) for airway management in a casualty?	A) Casualty is unconscious with compromised airway B) Casualty is conscious but unable to maintain their airway C) Casualty has facial trauma with airway compromise D) Casualty is in respiratory distress with no obvious trauma E) Do not perform rapid sequence intubation
7.	How do you assess and manage a casualty's neurological status during initial assessment?	A) Check for pupil size and reaction to light B) Assess level of consciousness using AVPU scale C) Ask the casualty to move all extremities D) Perform a Glasgow Coma Scale assessment E) Do not assess neurological status during initial assessment
8.	What is your approach to controlling bleeding in a casualty with an impaled object?	A) Remove the impaled object as quickly as possible B) Apply direct pressure around the impaled object C) Cut the object close to the skin surface D) Secure the object in place to prevent further movement E) Do not attempt to control bleeding with an impaled object
9.	When providing care to a casualty with burns resulting from an RTA, what is your immediate action?	A) Apply cold water to the burned area B) Remove any clothing covering the burned area C) Apply butter or oil to the burns D) Wrap the burns with a dry sterile dressing E) Do not intervene for burns in RTA casualties
10.	How do you assess and manage a casualty's breathing during initial assessment?	A) Check for chest rise and fall B) Listen for breath sounds with a stethoscope C) Feel for air movement against your cheek D) Ask the casualty if they can breathe E) Do not assess breathing

11.	When providing initial care to a casualty with suspected head trauma, what action do you take to prevent further injury?	A) Apply pressure to the wound B) Stabilize the head and neck C) Elevate the casualty's legs D) Administer pain medication immediately E) Do not intervene for head trauma
12.	In what position do you place an unconscious casualty with no suspected spinal injury?	A) Supine position (flat on their back) B) Recovery position (on their side) C) Sitting upright D) Prone position (on their stomach) E) Any position is acceptable
13.	When providing care to a casualty with suspected spinal injury, how do you ensure proper spinal immobilization during movement?	A) Secure the head and neck with towels or blankets B) Use a cervical collar and backboard for stabilization C) Avoid moving the casualty until medical help arrives D) Encourage the casualty to hold their head still E) Do not immobilize the spine during movement.
14.	When administering intravenous (IV) medication during resuscitation, how do you verify the correct medication and dosage?	A) Rely on memory B) Cross-check with another nurse C) Refer to the medication chart D) Administer without verification E) Do not administer IV medications
15.	Which of the following is a proper technique for applying a cervical collar to a casualty with suspected spinal injury?	A) Place the collar loosely around the neck B) Secure the collar tightly to restrict neck movement C) Apply the collar only if the casualty complains of neck pain D) Do not apply a collar unless instructed by a doctor E) Unsure/Do not apply cervical collar
16.	How do you communicate critical information during resuscitation efforts?	A) Verbally to team members B) Writing notes C) Hand signals D) Combination of A and C E) None of the above/No established method
17.	How do you approach the assessment and management of a casualty with suspected internal injuries?	A) Perform a focused abdominal assessment B) Listen for bowel sounds in all quadrants C) Monitor for signs of shock and vital sign changes D) Administer oral fluids to assess for gastrointestinal injury

		E) Do not assess or manage suspected internal injuries
18.	What measures do you take to prevent hypothermia in a casualty with severe external bleeding?	A) Apply warming blankets or insulation to the casualty B) Elevate the casualty's legs to improve circulation C) Administer intravenous fluids rapidly to increase body temperature D) Place ice packs on the casualty's forehead to cool them down E) Do not address hypothermia in casualties with severe bleeding
19.	How do you prioritize care in a multiple casualty scenario?	A) Treat the most severely injured first B) Treat the youngest casualties first C) Treat casualties based on arrival time D) Treat casualties based on personal preference E) Unsure/No specific approach
20.	How would you rate your overall performance in resuscitating RTA casualties?	A) Excellent B) Good C) Average D) Poor E) Inadequate

Thank you for participating in this questionnaire. Your input is invaluable for our research.

APPENDIX III: OBSERVATION CHECKLIST

Indicate whether the following activities were **YES** and **NO** by ticking the appropriate box.

Date……..

Themes	**Observations Checklist.**	**Tick for Mark**	
		YES	**NO**
Practices	1. Consistently follows established protocols and guidelines when managing trauma patients.		
	2. Effectively prioritizes tasks during the initial assessment and resuscitation of trauma patients.		
	3. Ensures proper airway management, including maintenance of cervical spine immobilization when indicated.		
	4. Performs high-quality CPR according to current guidelines during resuscitation efforts.		
	5. Demonstrates proficiency in controlling external haemorrhage using appropriate techniques.		
	6. Successfully establishes IV access and administers fluids as needed during trauma resuscitation.		
	7. Recognizes and promptly intervenes in life-threatening conditions such as tension pneumothorax.		
	8. Communicates effectively with other team members during trauma resuscitation efforts.		
	9. Provides appropriate reassurance and support to trauma patients and their families during resuscitation efforts.		
	10. Actively participates in debriefing sessions following trauma resuscitations to identify areas for improvement.		

APPENDIX IV: ESTIMATED BUDGET

	Stationary	**Quantity**	**Unit Price**	**Total Cost**
A	Photocopying Paper	2Reams	15,000/=	30,000/=
B	File folders	4	2,000/=	8,000/=
C	Flash disk	2	25,000/=	50,000/=
D	Pens	10	500/=	5,000/=
	Typing Services			
A	Questionnaires	170	500/=	85,000/=
B	Proposal	3	50,000/=	150,000/=
C	Report	3	60,000/=	240,000/=
	Data Collection			
A	Transport to Field		50,000/=	50,000/=
B	Transport	4days	10,000/=	40,000/=
C	Lunch	4days	4,000/=	16,000/=
D	Accommodation	4days	30,000/=	120,000/=
E	Literature Search (Libraries, internet)			100,000/=
	Grand Total			**894,000/=**

APPENDIX V: WORK PLAN

Work Plan: August 2023 - March 2024

Activities	Aug	Sep	Oct	Nov	Dec	Jan	Feb '24	Mar '24
Develop Research Proposal								
Design Questionnaire								
Pre-test Questionnaire								
Finalize Questionnaire								
Obtain Ethics Approval								
Data Collection (Interviews)								
Data Entry and Cleaning								
Data Analysis								
Report Writing								
Review and Edit Draft								
Final Report Submission								

APPENDIX VI: INTRODUCTORY LETTER

KING CEASOR UNIVERSITY

"Moral Rearmament, Wealth Multiplication"

P.O Box 88, Kampala, Plot 30/33 King Ceasor Road, Bunga Hill Main Campus.

Email: amoskalukusu@kcu.ac.ug

DIRECTORATE OF RESEARCH

22nd February 2024

MULAGO HOSPITAL RESEARCH AND ETHICS COMMITTEE RECEIVED Signature: Date: 22/2/2024

Mulago National Referral Hospital,
Research Ethics Committee,
Kampala, Uganda.

Dear Sir/ Madam,

REF: APPROVAL OF RESEARCH PROTOCOL FOR :- *Ms. AINEMBABAZI Sylvia*

I am reaching out to introduce ***Ms. AINEMBABAZI Sylvia on Tel: 0782-732355*** and email syainembabazi21ap@student.kcu.ac.ug who is a student enrolled in the Bachelor of Nursing program at King Ceasor University, and also set to graduate in April 2024.

Ms. AINEMBABAZI Sylvia is planning to conduct a research project entitled "***Knowledge, attitude and practices of resuscitating casualties involved in accidents among Nurses in Uganda: A case of Mulago National Referral Hospital, Nursing Staff".***

She aims to involve human subjects in her study. Therefore, I am writing to seek your support in approving her research protocol to facilitate her data collection process.

While her study site is not specifically Mulago National Referral Hospital, we are seeking approval through the Mulago Research Ethics Committee (IRC), leveraging our enduring partnership and collaborative efforts in research and various initiatives.

For all correspondences, please address them to the provided contact information.

Sincerely

KING CEASOR UNIVERSITY 22 FEB 2024 P.O. BOX 88, KAMPALA DIRECTORATE OF RESEARCH

Amos Ronald Kalukusu (PhD- Public Health)
Assoc. Director for Research.
Email: amoskalukusu@kcu.ac.ug Tel: 0781457183

CC: DVC Academic Affairs; Cc: Academic Registrar; Cc: Ms. AINEMBABAZI Sylvia

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

23 February 2024.

Ms. Sylivia Ainembabazi
Principal Investigator
King Ceasor University.

Dear Ms. Ainembabazi,

Re: Approval of Protocol MHREC 2709: "Knowledge, Attitude and Practices of Nurses in Resuscitating Casualties Involved in Road Traffic Accidents in Uganda: A Case of Mulago National Referral Hospital".

The Mulago Hospital Research and Ethics Committee reviewed your proposal referenced above and granted approval of this study on 23 February 2024. The conduct of this study will therefore run for a period of one (1) year from 23 February 2024 to 22 February 2025.

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

- Consent form
- Questionnaire
- Observation Checklist

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.

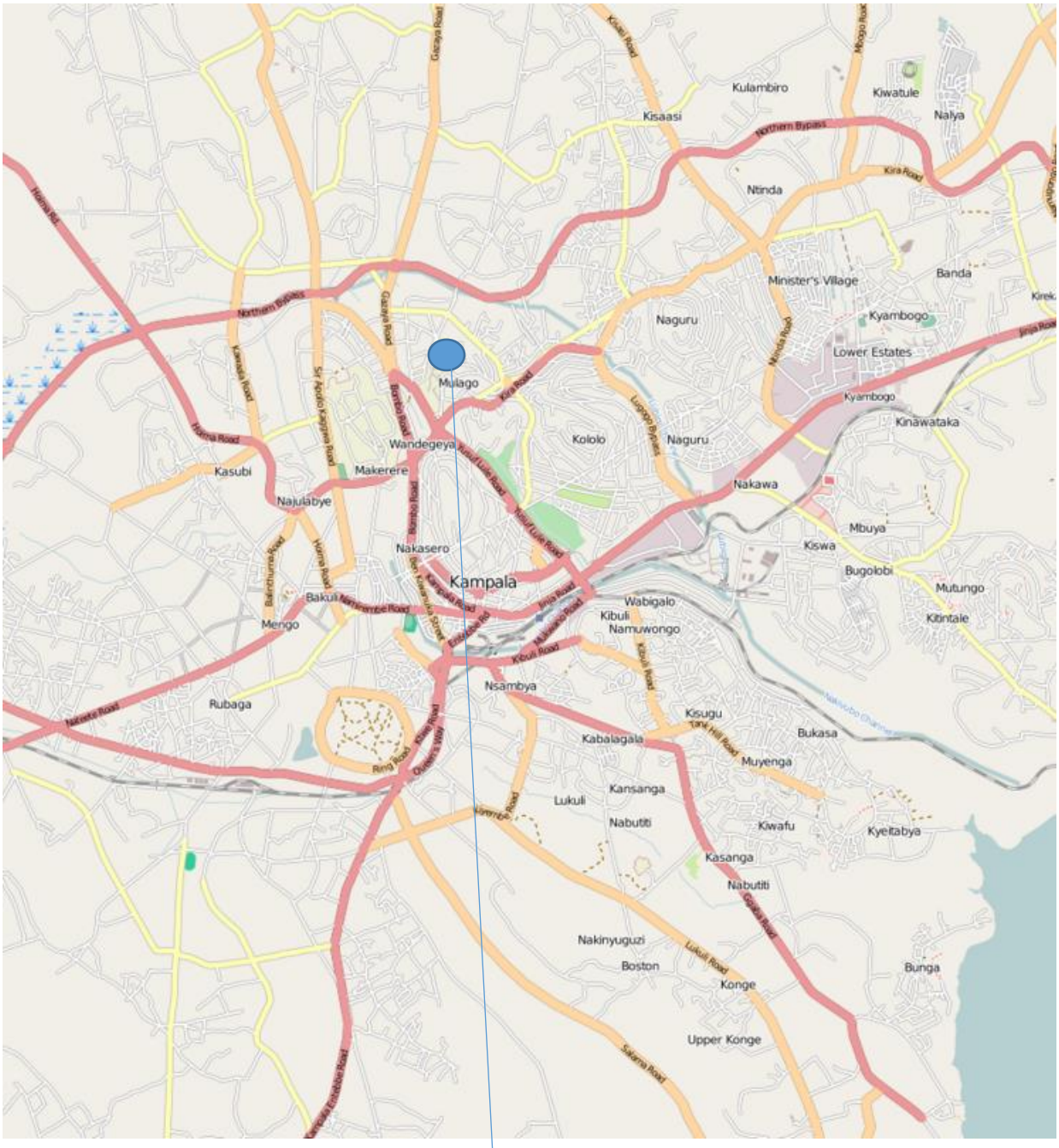
APPROVED
APPROVAL DATE EXPIRY DATE
23 FEB 2024 22 FEB 2025
MULAGO RESEARCH ETHICS COMMITTEE
IRC

DR. JANE NAKIBUUKA
CHAIRPERSON- MULAGO HOSPITAL RESEARCH & ETHICS COMMITTEE.

APPENDIX VII: AN AERIAL VIEW OF MULAGO NATIONAL REFFERAL HOSPITAL



APPENDIX VIII: A MAP OF KAMPALA SHOWING THE LOCATION OF MULAGO NATIONAL REFERRAL HOSPITAL



MULAGO NATIONAL REFFERAL HOSPITAL

APPENDIX IX: MAP OF UGANDA SHOWING GEOGRAPHICAL BOUNDARIES OF DISTRICTS AND THE LOCATION OF MULAGO NATIONAL REFERRAL HOSPITAL



MULAGO NATIONAL REFFERAL HOSPITAL