

**KNOWLEDGE, ATTITUDE AND PRACTICE OF COMMERCIAL MOTORCYCLISTS
IN KABALAGALA TOWARDS HELMET USE IN PREVENTION
OF HEAD INJURIES**

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2013-BNS-TU-027

**AN UNDERGRADUATE RESEARCH REPORT SUBMITTED TO THE SCHOOL OF
NURSING IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
AWARD OF A BACHELOR'S DEGREE IN NURSING OF
INTERNATIONAL HEALTH SCIENCES
UNIVERSITY**

NOVEMBER 2016

DECLARATION

I declare that the work contained in this report on the “Knowledge, attitude and practice of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries”, is mine and has never been presented before any academic institution for any award.

NAMWANGA LUNKUSE FLORENCE

Signature

Date.....

APPROVAL

This research report titled, “knowledge, attitude and practice of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries”, has been under my supervision as the college supervisor. It is now ready for submission and the researcher may proceed with data collection.

MRS. LWANIRA CATHERINE

Signature

Date

DEDICATION

I dedicate this research work is dedicated to my late father Awstaliko Ssembatya Buteelaba (RIP), my dear mother Mrs. Miriam Nakaye, my husband Mr. Kamulegeya Peter, my daughters; Flavia Namata, Samali Namuddu an Martha Nalukwago and only son Roy Kafeero.

ACKNOWLEDGEMENT

I give glory and Honour to Jehovah God, who gave me knowledge, skill and understanding and blessed me plus taking care of my family.

My heartfelt gratitude goes to the family of my dear husband Mr. Kamulegeya Peter, maternal uncles, Aunties and friends for the genuine support they have given me to complete this research work and the entire course at large.

I remain indebted to my supervising lecturer for patiently guiding and correcting me in the research work.

I acknowledge all the sources of information that have been based on to do this work. Without them this research work would not be successfully.

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DEFINITION OF OPERATIONAL TERMS

- Knowledge : This is the level of understanding or thinking one has about a certain phenomenon at hand.
- Attitude : This is an individual's opinion about a certain phenomenon.
- Practice : This is the actual activity an individual does in relation to the phenomenon at hand.

LIST OF ABBREVIATIONS

BAC	:	Blood Alcohol Concentration
IHSU	:	International Health Sciences University
MOH	:	Ministry of Health
NGOs	:	Non Governmental Organization
WHO	:	World Health Organization

ABSTRACT

Poor helmet use has led to great head injury burden especially trauma and death after accidents. It is estimated that over one million people worldwide are injured or disabled due to poor helmet use (Chisholm et al, 2012). In Kabalagala Parish, many boda Boda cyclists either don't have helmets or poor use them which had resulted in injuries in case of accidents. Specific objectives of the study were; assessing the level of knowledge, attitude and practices of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries between 2010 and 2016. The adapted a cross-sectional research design where a sample size of 92 respondents who were boda boda cyclists selected by stratified and simple random sampling.

Study findings showed that, out of the 92 respondents used in this study, majority had fairly good knowledge about helmet use where 66(72%) did not receive routine education about helmet use (0.0000), 64(70%) knew their uses, 53(58%) knew that a good helmet should have a string that is fastened at the chin, covers the whole head, hard enough and well ventilated (0.0000), 69(75%) thought that a helmet should only be cleaned when it gets dirty (P=0.0036). It was however found out that most 51(55%) of them never knew the life span of a helmet (P=0.0005) and 53(58%) did not know that the best sources of helmets (P=0.0001). Findings showed that, respondents had negative attitude because; 46(68%) carried diseases (P=0.0001), 54(59%) thought the helmets should be worn on ones wish or fashion (P=0.0000), helmets should be worn depending on weather conditions and hours of the day 64(70%) and riders do not appreciate that helmet is their own protection but not serving the law 75(82%) (P=0.0292). Respondents had poor practices where; only 52(56.5%) had helmets at the time of study, 57(62%) never regularly wore helmets, 75 (81%) never provided helmets to their passengers and 43 (46.7%) fastened their helmets before riding.

In conclusion, respondents had good knowledge towards helmet use because they knew their uses and could define the characteristics of a good helmet. However they had poor attitude because they believed that they carried diseases, be worn on ones, wish or fashion and not for their own benefit but to serve the law. This could have led to poor practice since few had helmets and never regularly used them sometimes despite having them. The researcher suggests that, more education and sensitization be given to boda boda cyclists about helmet use and force them to observe the law through penalties.

CHAPTER ONE

Introduction

The study proposes to assess the level of knowledge, attitude and practice of motorcyclists towards helmet use in prevention of head injuries. This chapter presents the background, problem statement, purpose, specific objectives, research questions, significance and conceptual framework of the study.

1.1 Background

Road traffic injuries represent a leading and increasing contributor to regional and global disease and injury burden. It is estimated that in 2002 road crashes killed over one million people worldwide and injured or disabled a further 20–50 million (Chisholm et al, 2012). Road traffic injuries are projected to become the third largest contributor to global disease burden by 2030 (WHO, 2015).

Regarding risk factors for motorcycle injuries, the non-use of helmet has been identified as a specific factor leading to head injuries and fatalities resulting from motorcycle crashes. Injuries to the head, following motorcycle crashes, are a common cause of severe morbidity and mortality (Peltzer, 2011). Helmet as a protective measure has been identified to be effective towards head injury prevention and reduces the fatality of motorcycle riders. The fatality risk is reduced by 34%. To be protected from head injury, motorcyclists need to consistently and properly wear helmets according to the prescribed standards. However, non-consistent use of helmet has been evident in several studies (WHO, 2015).

Globally, an estimate of 1.25 million people die each year due to road traffic accidents, thus a road user dies every 30 seconds that pass – 3,400 daily. Between 20 and 50 million more people also suffer non-fatal injuries, with many incurring a disability as a result of their injury.

In the Developed World, Germany has only 4.3 deaths per 100,000 people while the United States and United Kingdom had 10.6 and 2.9 respectively (WHO, 2013).

India has the most fatalities, but Libya is top on a per capita basis. The fatality rate on Libya's roads was 73.4 the roads occur in low- and middle-income countries, even though these countries have approximately half of the world's vehicles. Road traffic injuries are the leading cause of

death per 100,000 people, way ahead of Thailand at 36.2 in second place. 90% of the world's fatalities on in the world among young people, aged 15–29 years.

Thirty four countries have a good drink–driving law with a blood alcohol concentration (BAC) limit of less than or equal to 0.05 g/dl as well as lower limits of less than or equal to 0.02 g/dl for young and novice drivers; 44 countries have helmet laws that apply to all drivers, passengers, roads and engine types; require the helmet to be fastened and refer to a particular helmet standard. Motorcyclists are particularly vulnerable, making up 23% of all road traffic deaths (Xuequn et al, 2011).

In Americas, the proportion of motorcycle deaths out of all road traffic fatalities rose from 15% to 20% between 2010 and 2013. In the South-East Asia and Western Pacific regions a third of all road traffic deaths are among motorcyclists.

However, in an unprecedented shift, China instituted stronger penalties for drinking and driving in 2011, and in 2013, Vietnam penalties were established for motorcyclists wearing helmets that failed to meet safety standards,” said a report from Bloomberg Philanthropies. In Cambodia, a strong road safety bill was passed in January 2015. Part of the law now requires all motorcyclists, including drivers and passengers, wear a helmet. Additionally, the interventions have had a notable impact on the ground. In Ivanovo, Russia, in 2014 88% of car riders wear seatbelts, a sharp contrast to 2011, when less than half wore life-saving seat-belts.”

The World Health Organization (WHO) Road Safety Report 2015 states that there are 27.4 traffic deaths per 100,000 people every year in Uganda. It is higher in Kenya at 29.1, Rwanda 32.1 and Tanzania 32.9 (WHO, 2015).

Half of world’s road accidents are “vulnerable road users”. These include; pedestrians, cyclists and motorcyclists. In Uganda, Boda Boda accidents are major traffic accidents, and emergency admissions to hospitals. A Uganda Police Annual traffic report for 2013, noted that the number of motor cyclists and pedal cyclists who died in 2013 increased by 12.3% and 3.2% respectively from that of 2012.” The Uganda Report stated that “pedestrians and passengers continue to be the most vulnerable category of road users constituting 40.2% and 26.6 % respectively of the total number of persons killed in 2012. 1,181 pedestrians (40.2%), 781 passengers (26.6 %), 224 pedal cyclists (7.6%), 641 motor cyclists (21.8 %) and 110 drivers (3.7%) were killed in road

accidents in 2013” (Uganda Traffic Report, 2014). More people die on the road worldwide every year than the annual death toll of about 438,000 from malaria (WHO, 2015). Wearing a motorcycle helmet correctly can reduce the risk of death by almost 40% and the risk of severe injury by over 70%. When motorcycle helmet laws are enforced effectively, helmet wearing rates can increase to over 90%. Requiring helmets to meet recognized safety standards ensures that helmets can effectively reduce the impact of a collision to the head in the event of a crash (WHO, 2015).

Approximately 2000 lives are lost in Uganda annually through road traffic accidents. In Kampala, they account for 39% of all injuries, primarily in males aged 16–44 years. They are a result of rapid motorization and urbanization in a country with a poor economy. Motorcycles and omnibuses, the main taxi vehicles, are the primary contributors to the accidents. Poor roads and drivers compound the situation. Twenty-three orthopaedic surgeons (one for every 1,300,000 people) provide specialist services that are available only at three regional hospitals and the National Referral Hospital in Kampala (Naddumba, 2008).

Although low- and middle-income countries often have a high prevalence of motorcycle use, the rate of helmet usage in these countries is low (31–59%) (Khan et al, 2008). In Southeast Asia and Africa, helmets are considered a burden, and the hot weather is an obstacle to mandated helmet use (De Rome, et al., 2012). Therefore, motorcycle helmets should be designed to reflect the climate conditions of each country while also serving the ultimate function of protecting against head injury. Additionally, safety devices such as protective jackets, pants, or gloves can decrease injury. Preliminary studies of motorcycle airbags also suggest a reduction in rider injuries

The majority of musculoskeletal injuries are managed nonoperatively by 200 orthopaedic officers distributed at the district, regional and national referral hospitals. Because of the poor economy, 9% of the national budget is allocated to the health sector. Patients with musculoskeletal injuries in Uganda frequently fail to receive immediate care due to inadequate resources and most are treated by traditional bonesetters. Neglected injuries typically result in poor outcomes. Possible solutions include a public health approach for prevention of road traffic injuries, training of adequate human resources, and infrastructure development

1.2 Problem statement

Wearing a motorcycle helmet correctly can reduce the risk of death by almost 40% and the risk of severe injury by over 70%. When motorcycle helmet laws are enforced effectively, helmet wearing rates can increase to over 90% (WHO, 2015).

Non helmet use has been identified as the major cause of head injuries among boda boda cyclists in most urban areas such as Kabalagala Trading centre Junction; in 2013; out of 210 registered boda boda cyclists, 83(39.5%) sustained head injuries, in 2014, out of 233 registered cyclists 96(41.2%) sustained head injuries and in 2015, out of 243 registered cyclists, 87(35.8%) sustained head injuries in accidents. These resulted in long hospital stay, economic constraints to their families and relative, school drop out of children of victims thus a problem (Kabalagala .Police Traffic report, 2015).

Despite efforts by the government and Non-Governmental Organizations such as Helmet Vaccine Uganda to educate and sensitize cyclists about traffic laws, ensure that motor cyclists get helmets at subsidized prices, or free of charge and levying penalties to traffic law offenders to enhance awareness about the importance of helmets; their use is still low (MOH, 2014). This has made them vulnerable to head injuries whenever they get accidents. It could be that they don't have the right knowledge, attitude and practice on the importance of helmet use. No study has been done to assess the level of knowledge, attitude and their practices about helmet use. This then attracts the researcher to carry out this study.

1.3 Objectives of the study

1.3.1 Purpose of the study

The study assessed the knowledge, attitude and practice of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries between 2010 and 2016.

1.3.2 Specific objectives of the study

The specific objectives included the following;

- To examine the level of knowledge of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries between 2010 and 2016.

- To assess the attitude of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries between 2010 and 2016.
- To examine the practices of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries between 2010 and 2016.

1.4 Research questions of the study

The study answered the following research questions;

- What is the level of knowledge of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries between 2010 and 2016?
- What is the attitude of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries between 2010 and 2016?
- What are the practices of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries between 2010 and 2016?

1.5 Significance of the study

- **Ministry of Health**

Helping the Ministry of Health to get more about knowledge, attitude and practice of commercial motorcycle cyclists in Kabalagala Town towards helmet use. This will help them to draw appropriate budgets that will ensure adequate helmets are supplied to cyclists to minimize head injuries. Also the government will implement be in position to implement traffic laws regarding helmet use. This will be based up to step up strategies that will ensure adequate use of helmets and devise better techniques to be used by the traffic police to ensure helmet use.

- **Policy makers**

The study findings will be based upon by policy makers to design appropriate policies that will help to in increase awareness about helmet use and their advantages.

- **Heath Care Service Providers**

Results will be based upon by heath care service providers to assess the level of knowledge, attitude and practice of commercial motorcycle cyclists in Kabalagala Town towards helmet use. This will be based upon to devise methods of sensitizing them on achieving helmet use. Health

care providers especially orthopedicians will illustrate better ways how motorcyclists can use helmets to protect themselves against head injuries.

- **Boda Boda Cyclists**

The findings will help them to know the advantages and better ways of using helmets to protect against injuries. This information will be derived from the study recommendation.

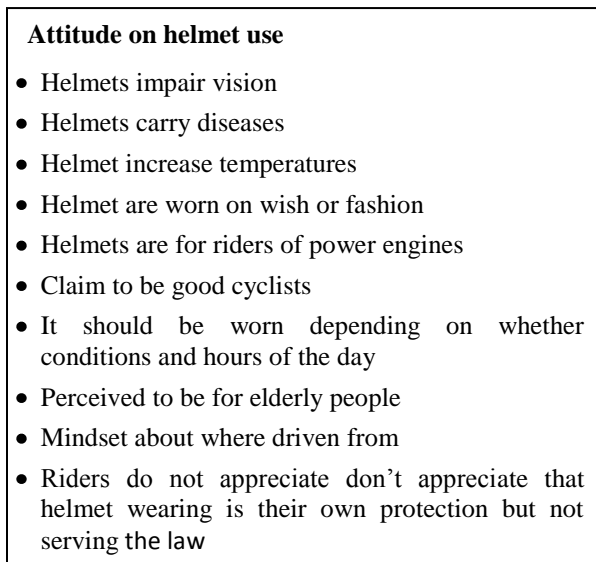
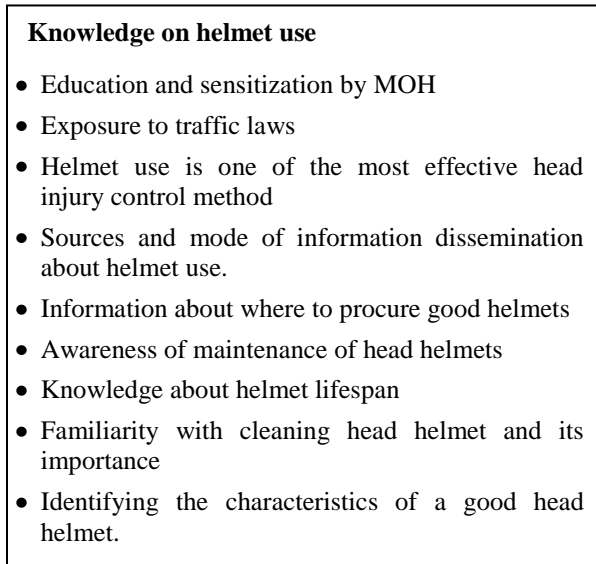
- **Researcher**

The findings will help the researcher to be awarded a bachelor's degree in Nursing of International Health Sciences University (IHSU).

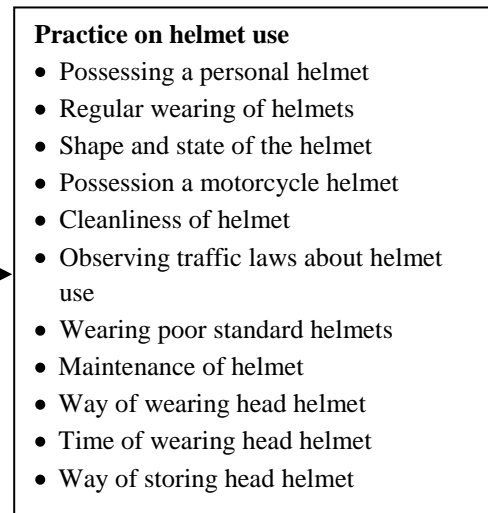
1.6 Conceptual framework of the study

Figure 1: Conceptual framework of the study

Independent Variable



Dependent Variable



The figure above shows the relationship between the independent and dependent variable variables. Knowledge and attitude towards helmet use were the dependent variable while practice was the dependent variable.

Knowledge on helmet use was indicated by; source of information on helmet use, education and sensitization by MOH, exposure to traffic laws, health talks by NGOs, helmet use is one of the most effective head injury control method, regularity of sensitization about helmet use, sources

and mode of information dissemination about helmet use, information about where to procure good helmets, awareness of maintenance of head helmets, knowledge about helmet lifespan, familiarity with cleaning head helmet and its importance and identifying the characteristics of a good head helmet.

Attitude on helmet use were indicated by; helmets impair vision, helmets carry diseases, helmet increase temperatures, helmet are worn on wish, helmets are just a fashion, helmets are for riders of power engines, claim to be good cyclists, it should be worn depending on whether conditions and hours of the day, perceived to be for elderly people, mindset about where driven from and riders do not appreciate don't appreciate that helmet wearing is their own protection but not serving the law.

Practice on helmet use were indicated by; possessing a personal helmet, regular wearing of helmets, shape and state of the helmet, possession a motorcycle helmet, cleanliness of helmet, observing traffic laws about helmet use, wearing poor standard helmets, maintenance of helmet, way of wearing head helmet, time of wearing head helmet and way of storing head helmet

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter presents information reviewed from acknowledged studies by scholars, researchers, reporters and academicians among others. This was cited in relation to study specific objectives that include; assessing the level of knowledge, attitude and practices of motorcyclist towards helmet use in prevention of head injuries.

2.1 Rationale of helmet use and head injuries

2.1.1 Head injuries main cause of death

Injuries to the head and neck were the main cause of death, severe injury and disability among users of motorcycles (Ankarath et al, 2002; Umar, 2002). In European countries, head injuries contributed to around 75% of deaths among motorized two-wheeler users; in some low-income and middle-income countries head injuries were estimated to account for up to 88% of such fatalities (Umar, 2002). In a study done in Dar es Salaam Tanzania, head injury accounted for 14.3% of all road traffic related injuries (Zimmerman et al, 2011).

2.1.2 Knowledge on cost of medical care

The social costs of head injuries for survivors, their families and communities were high, in part because they frequently required specialized or long term care (Peden et al, 2004). Head injuries also resulted in much higher medical costs than any other type of injury (Blincoe et al, 2000), such that these injuries exerted a high toll on a country's health care costs and its economy. In the study regarding costs of traumatic brain injury due to motorcycle accidents done in Hanoi Vietnam , it was found that only 12% of the households could afford to pay the costs associated with the treatment of traumatic brain injury (TBI) from household savings (Hoang et al, 2008).

2.1.3 Protective benefits of helmet against head injury

Several studies reported on the effectiveness of helmet in protecting against head injury (Chang & Yeh, 2006; Hung, Stevenson & Ivers, 2008; Julian et al., 2002; Brown et al., 2009; Lin et al., 2003). Motorcycle helmets reduced the risk of mortality and head injury in motorcycle riders who crash (WHO, 2006). In a study done in USA, it was found that helmet use reduces fatality risk by 34% (Dee, 2009). The effect on death could be modified by other factors surrounding the crash, such as the speed the motorcyclist was travelling when the crash occurred. Crashes at

higher speeds could result in multiple injuries likely to cause death, regardless of how well the head was protected (WHO, 2006).

Motorcycle riders who do not wear a helmet run a much higher risk of sustaining head and traumatic brain injuries, or a combination of them. Helmets create an additional layer for the head and thus protect the wearer from some of the more severe forms of traumatic brain injury. In spite of the protective nature of helmets, and the impact of traumatic brain injury for motorcycle users (WHO, 2006), low rate of helmet use in middle and low-income countries is the commonly observed phenomena (Oluwadiya et al., 2004). To make matters worse, in spite of the low rate of helmet use, helmets are not worn properly by having the chin strap fastened (Li et al., 2008).

The costs attributable to boda-boda injuries in Mulago national referral hospital make up approximately 4.2% of the total hospital budget, 15% of the hospital health services budget and 62.5% of the hospital's budget allocation for directorate of surgery. The percentage of accidents attributable to Boda-bodas has been increasing annually (Akaateba, 2014). They are a leading cause of accident scene fatalities in Kampala. About 17% of 2954 people killed in RTI in 2010 were operators or passengers of two or three wheeled vehicles, primarily motorcycles.

Boda-bodas are filling a gap in the transport system in Uganda. They operate where more conventional transport services are uneconomical or physically impossible. Therefore, the boda-boda mode of transport is likely to remain one of the most important players in the transport sector for quite a while and these calls for increased efforts to make it safer. This paper adds on existing evidence that can aide intervention to make the boda-boda transport safer.

In Uganda, motorcycle taxis (*boda-boda*) were a major cause or agent of road traffic injuries and a significant economic burden as each costs an estimated range of USD 300–369 in treatment (Galukande, Jombwe, Fualal, and Gakwaya, 2010). A study of July to September 2001 records in emergency wards of Mulago National referral hospital found boda-boda crashes contributed 25% of the road traffic injuries(RTI) while another records based study in 2008 found they contributed 41% of the RTIs (Kigera, Nguku and Naddumba 2010). Boda-bodas contribute 21.4% of all physical trauma cases in Gulu regional referral hospital.

2.2 Level of knowledge of motorcyclist towards helmet use in prevention of head injuries

2.2.1 Males without formal training

In a study by Fadekemi, et al., (2007) on knowledge, attitude, and practice of Nigerian Commercial motorcyclists in the use of crash helmet and other safety measures, traffic injury prevention, Commercial motorcycling was essentially done by males who did not received formal training for the job; hence, they lacked adequate knowledge and practice of road safety measures. They did not know that it was a traffic laws requirement that whoever travels on a motorcycle should wear a helmet to minimize or prevent head injuries in cases of an accident.

2.2.2 Older riders used helmet more than younger riders

Those who were aged (40 years and above) seemed to wear helmet than those less than 40 years whereby all (100%) who were 40 years and above reported to wear helmet as reported by Ackaah & Afukaar, (2010). The reason behind not wearing helmet among those in the young age could be due to the fact that young people generally tend to adopt risky behaviour and attitudes as compared to their elder counterparts (Seleye-Fubara & Ekere, 2003). This tend to think that they know everything and no risk is likely to face them

2.2.3 Awareness that helmets reduced head injuries

In a study on the factors contributing to high frequency of vulnerable road user injury in Dar es Salaam, Nyoni and Masaoe (2011), noted that, most participants agreed that wearing helmet was necessary and helmet reduced head injury in case of accidents. This finding was somewhat similar to the study done in Nigeria whereby it was found that majority of participants acknowledged the benefits of helmet which implied that respondents were aware of the benefits of helmet wearing.

2.2.4 Helmet worn depending on temperature

Familiarity with cleaning head helmet and its importance was another knowledge gap in the use of helmets. Injuries resulting from motorcycle crashes constitute a growing problem in Argentina and other Latin American countries because helmet use was not widespread. This observational study analyzed the prevalence of helmet use and related factors in a city in Argentina (Ledema, López, Tosi, and Poó, 2015). The sample consisted of 2542 observations of motorcyclists. The results showed an incidence of helmet use of 69.8% for drives and 43.4% for

passengers. Helmet use was greater among women. Environmental and temporal conditions were related with the rate of helmet use. The findings indicated a considerable increase in helmet use with respect to prior years, providing evidence in favour of government policies. However, the number of motorcycles in circulation tripled in the past five years, and therefore, the public health impact of injuries due to motorcycle crashes persists.

2.3 Attitude of motorcyclist towards helmet use in prevention of head injuries

2.3.1 Believed that helmets prevent injuries

In a study by Fadekemi et al (2007) on knowledge, attitude, and practice of Nigerian Commercial motorcyclists in the use of crash helmet and other safety measures, traffic injury prevention, close to half (48.6%) of cyclists admitted carrying more than one (2–4) million passenger; 64 (30%) volunteered positive history of alcohol consumption. Only 20% perceived a crash helmet as a known safety device and 23.8% had a helmet on at the time the study was conducted.

2.3.2 Frequency of helmet use

Rissel, and Wen, (2016) in the study on the possible effect on frequency of cycling if mandatory bicycle helmet legislation was repealed in Sydney, Australia in a cross sectional survey, almost half (47.6%) of respondents said they would never ride without a helmet, 14.4% said ‘all the time’, 30.4% said ‘some of the time’ and the rest were not sure. One third (32.7%) of respondents did not support mandatory helmet legislation. This showed low helmet use.

2.3.3 Believed that helmet use is good

Failure to observe the procedures of helmet use limit effective helmet use among boda boda cyclists. Still in Fadekemi, et al., (2007) the majority (67.3%) favored the enforcement of crash helmet while others would reject the idea; 45.8% of the cyclists have been involved in crashes at one time or the other. Most of the crashes occurred with a motor vehicle or as a lone accident while they attributed most of the accidents to bad roads and failure to observe road signs.

2.3.4 Helmets increase temperatures

Ledesma, et al., (2015) revealed that helmet use was belatedly low in Argentina. The sample consisted of 2542 observations of motorcyclists. The results show an incidence of helmet use of 69.8% for drivers and 43.4% for passengers. Helmet use was greater among women.

Environmental and temporal conditions were related with the rate of helmet use. The findings indicated a considerable increase in helmet use with respect to prior years, providing evidence in favour of government policies. However, the number of motorcycles in circulation tripled in the past five years, and therefore, the public health impact of injuries due to motorcycle crashes persists.

2.3.4 Helmets impair vision

Erhardt, Rice, Troszak, and Zhu, (2016) in a study on motorcycle helmet type and the risk of head injury and neck injury during motorcycle collisions in California, showed that, helmets did not impair vision if well maintained. Good helmets had transparent glasses that helped the rider to have a clear sight of all things within the fore view.

2.3.5 Helmets carry diseases

Pucher, Garrard, and Greaves, (2010) in a comparative analysis of bicycling trends and policies in Sydney and Melbourne on cycling down under; stated that helmets did not carry diseases if they are well maintained through adequate washing after use. After work majority of the respondents recommended helmets to be washed so that the pathogens are killed off.

2.3.6 Helmet increase temperatures

Ogunmodede, Adio, Ebijuwa, Oyetola and Akinola, (2012) in a study on the factors influencing high rate of commercial motorcycle accidents in Nigeria reported that, majority of the respondents had positive attitude towards helmet use. Respondents did not think that wearing a helmet could increase the temperatures of the user. The respondents had good

2.3.7 Helmet are worn on wish

Kigera, Nguku, and Naddumba, (2010) in a study on the Impact of boda boda Motor Crashes on the Budget for Clinical Services at Mulago Hospital, Kampala, noted that helmets are worn on wish. Some boda boda cyclists think that helmets are fashion that complete on the beauty of the rider or an item that could be used to save the rider of rain; which is not right.

2.3.8 Helmets are for riders of power engines

Bachani, et al., (2013) in a study on the trends in prevalence, knowledge, attitudes, and practices of helmet use in Cambodia, Despite awareness of the protective value of helmets, motorcycle

helmet use rates remain low in Cambodia. Many misconceptions remain in Cambodia regarding helmet use, including that they are unnecessary for short distance or at low speeds. These serve as an important barrier to helmet use, which, if dispelled and coupled with visible and regular enforcement, may significantly reduce the number of motorcycle-related injuries and fatalities.

2.3.9 Storage of helmets

Macharia, et al., (2009) in a study on severe road traffic injuries in Kenya, quality of care and access found out that lack of comfort, negative social perception and inconvenience of helmets particularly in relation to storage of helmets when not riding and being a good driver were the excuses of not wearing helmet. The nature of weather has been reported as another factor associated with helmet usage.

2.3.10 Inconvenience especially when stolen

Not wearing helmet include the idea that helmets are necessary for the drivers of powerful engine motorcycles that travel in a high speed and not necessary for moped and scooter drivers noted by Roehler, and colleagues (2013) in a study using baseline and formative evaluation data to inform the Uganda Helmet Vaccine Initiative. Inconvenience of carrying the helmet as it could be stolen if left on the vehicle, and the inconvenience of removing it now and then for taking calls on the hand-held mobile phones while driving.

Fedekemi et al (2013) on knowledge, attitude, and practice of nigerian commercial motorcyclists in the use of crash helmet and other safety measures, found out that, majority (67.3%) favored the enforcement of crash helmet while others would reject the idea; 45.8% of the cyclists have been involved in crashes at one time or the other. Most of the crashes occurred with a motor vehicle or as a lone accident while they attributed most of the accidents to bad roads and failure to observe road signs. Commercial motorcycling is essentially done by males who have not received formal training for the job; hence, they lack adequate knowledge and practice of road safety measures which was good helmet use.

2.3.11 Formal training

Xuequn, Ke, Ivers, Du and Senserrick (2011) in a study on the prevalence rates of helmet use among motorcycle riders in a developed region in China, revealed that in a sample size of 70 respondents where data collected were descriptively analyzed using Statistical Package for

Social Sciences (SPSS) found out that motorcycle accidents were mainly due to driving a motorcycle without formal training on helmet use (70%). Even respondents who wished to wear helmet did not know how best they could use them for high performance.

2.3.12 Observation of traffic laws

Moreover, organizing road safety week campaigns and prosecuting in courts or penalizing without prosecution those who contravene road traffic rules and other related legislations as reported by (80%) of respondents, constructing bumps along crossing areas such as schools, market etc (85%) and enhancing road safety committees with traffic safety activities in coordinating and organizing different activities relating to control and prevention of road traffic accidents as affirmed by (85%) of the respondents would prohibit the incidences of accidents. The study concludes by arguing for the need to enforce laws to those who violate the rules by being fined or withholding their licenses to alleviate motorcycle accidents in Morogoro municipality. However, the researcher argues for the enhancement of drivers skills on the road through continuous training while honoring other users of the road by adhering to laws and changing the drivers behaviours.

2.3.13 Use depends on the type of engine

Cheng, Wang and Lu, (2014) in a study carried in the USA and Adogu et al in Nigeria revealed that some riders use helmets depending on the type of engine of the motorcycle used. The higher engine capacity was thought to higher severity of injuries rather than just a mere occurrence of injury. This relationship between engine capacity and helmet use was a major determinant in helmet use (Adogu, Ilika and Asuzu, 2009).

2.4 Practices of motorcyclist towards helmet use in prevention of head injuries

2.4.1 Regularity of helmet use

There was poor helmet use as reported by Bachani et al (2013) in a study on the trends in prevalence, knowledge, attitudes, and practices of helmet use in Cambodia, observed helmet rate across all study sites was 33% during nighttime and 48% during daytime, with proportions up to ten times higher among drivers compared with passengers. Self-reported helmet use was higher than observed use. Within the past 30 days, 60% of respondents reported that they “always” wore a helmet when they were drivers while only 24% reported they “always” wore a helmet as

a passenger. Reported barriers for use among drivers included: “driving route”, “forgetfulness”, and “inconvenience/discomfort.”

2.4.2 Training on helmet use

Mwakapasa (2011) in a study in Tanzania revealed that, most cyclists had never attended any well organized road safety campaigns on minimizing head injuries where helmet use would be one of the major ones. The study concludes by arguing for the need to enforce laws to those who violate the rules by being fined or withholding their licenses to alleviate motorcycle accidents in Morogoro municipality. However, the researcher argues for the enhancement of drivers skills on the road through continuous training while honoring other users of the road by adhering to laws and changing the drivers behaviours.

2.4.3 Helmets used by long distance riders

Tumwesigye et al (2016) in a study on the factors associated with injuries among commercial motorcyclists: evidence from a matched case control study in Kampala City, Uganda, noted that, regarding the location, it has been found that helmet users are more likely to be riding a long distance, travelling on highways and freeways, and/or in an urban area. This study conquers with another study done in Ghana by (Ackaah & Afukaar, 2010) whereby it was evident that many commercial motorcyclists who work in town areas were wearing helmet more than their rural counterparts.

2.4.4 Uncomfortability of being too hot'

Roehler et al (2016) in a study in Kampala Uganda show poor helmet use. Of the 12,189 motorcycle operators and passengers observed during roadside observations, 30.8% of drivers and <1% of passengers were wearing helmets. The most commonly reported helmet-wearing barriers from the focus group discussions and structured roadside interviews were: 'uncomfortability, being too hot', 'being too expensive', and 'being of low quality'. Researchers incorporated findings from the formative research into the UHVI campaign to increase motorcycle helmet use. Radio messages addressing helmet comfort and cost were widely aired throughout Kampala, Uganda. In addition, campaign staff held nine boda boda operator workshops, covering approximately 900 operators, in which it found out helmet use to be poor with low use at 25%. Each workshop participant received a high-quality tropical motorcycle helmet. UHVI will continue to use a data-driven approach to future campaign activities.

2.4.5 Cleaning of helmets

Twagirayezu, Teteli, Bonane and Rugwizangoga (2008) in a study on road traffic injuries at Kigali University Teaching Hospital, Rwanda, found out motorcycle riding in this area is almost exclusively men, most of whom do it for commercial purposes. Majority of the motorcycle riders do not have helmets and the few who have them do not properly maintain them. They hardly wash them nor do they store them well to be attractive for use tomorrow.

2.4.6 Legal enforcement

Mwakapasa, (2011) in a study carried out in Tanzania noted that, possession of helmet may be one of the determinants of helmet use. However, very few motorcyclists wear helmets for preventive purposes and many just do because they don't want to be caught by law. Inconsistent helmet wearing is secondary to ineffective legal enforcement towards helmet use. Generally, this suggests that low level of helmet use may be partly attributed by the lack of knowledge of the protective benefits of helmets and low legal enforcement regarding helmet use.

2.4.7 Age

Macharia et al (2009) in a study carried out in Kenya reported that 81.2% of RTI victims were aged 15-49 years while 12% were above 49 years. About 20% of the interviewed RTI inpatients were able to pay bills. This suggested an over-representation of lower income strata with limited access to effective medical treatment (lack of medical insurance and personal resources to draw from to pay medical bills).

Macharia et al (2009) reported that provision of first aid was very weak (only 16% of interviewed inpatients reported having received first aid). Transport to hospital is mainly by volunteers while police and ambulances transported 7.5 % of the inpatients interviewed. Sixty six percent of victims were treated within one hour of the crash. Services rated as fair to poor by about 60%. Essential supplies were often missing in public hospitals though 40% of all hospitals self reported to be prepared to handle RTI emergencies. For the severe injury (treated as inpatients) 78% suffered from permanent disability.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the methodology that was used in the study. It includes the study design, study setting, study population, eligibility criteria, sample size determination, sampling technique, sampling procedure, study variables, sources of data, data collection method, quality control, data analysis and presentation, ethical issues, limitations of the study and plan for dissemination of the study findings.

3.1 Study design

This was a cross sectional study. The study was carried out in September 2016 from 1th to 9th. With a cross sectional study approach, data was collected at one point in time. This was suitable for determination of knowledge, attitude and practice of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries.

3.2 Sources of data

The study used both primary and secondary data sources.

With primary data, information was derived directly from the respondents using questionnaire based interviews and observation.

Secondary data was obtained from previous publications and other scholarly articles (on-line journals, research dissertations, learning websites, electronic books, library books, etc.) on use of helmets in the prevention of head injuries. These sources were explored in the buildup of literature and as a basis of discussion of the study findings.

3.3 Study setting

The study was carried out in Kabalagala Town junction among commercial motorcyclist stages, Kabalagala Parish, Kampala District. It is located 2 km from Kampala Capital City Centre along Ggaba Road. Kabalagala Town junction has a number of commercial motorcyclist stages including Payless Boda Boda Stage, Shell Kabalgala Boda Boda Stage, Ggaba stage Boda Boda Stage and Muyenga Road Boda Boda Stage. These have a total of 216 registered cyclists.

3.4 Population of study

3.4.1 Target population

The area has an estimated population of 216 registered cyclists. Payless Boda Boda Stage has 45 cyclists, Shell Kabalgala Boda Boda Stage has 57 cyclists, Ggaba stage Boda Boda Stage has 52 cyclists and Muyenga Road Boda Boda Stage has 62 cyclists.

3.4.2 Eligibility criteria

3.4.2.1 Inclusion

All commercial motorcyclists found at the different stages during the time of data collection and consented to participate in the f study.

3.4.2.2 Exclusion Criteria

All commercial motorcyclists who were absent at the different stages at the time of data and all those who were not willing to participate in the study.

3.5 Sampling

3.5.1 Sample Size Calculation

The sample size was determined using Slovenes formula given below (Mojosh, 2011) for derivation of sample size from a relatively small accessible population (below 1000 people), considering an accessible population (N). A total of 92 respondents who were commercial motorcyclists were selected from 216 cyclists where in one cyclist will be selected from every 3 cyclists will be selected.

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

Where; n = Sample size

N = Accessible Population size (107)

e = standard margin of error (5% or 0.05)

$$n = \frac{107}{1 + 107(0.05 \times 0.05)}$$

$$n = \frac{107}{1 + 107(0.0025)}$$

$$n = \frac{107}{1 + 0.2675}$$

n = 84 respondents

10% will be included in calculated sample size to cater for non-response or incomplete questionnaires.

$$10\% = 10/100 \times 84 = 8.4$$

Accordingly, a minimum of 92 boda boda cyclists were examined.

To determine the number of respondents to be randomly selected the following formula was used.

n/N ; Where n is the calculated sample size;

N = Accessible population

$$n/N = 92/107 = 0.85.$$

The number of respondents was obtained by multiplying the accessible population with 0.85 making a final sample size of 92 respondents.

Table 1: Category of respondents

Category of respondents	Population size	Sample size
Payless Boda Boda	22 x 0.85	19
Shell Kabalgala Boda Boda Stage	28x 0.85	25
Ggaba stage Boda Boda Stage	31 x 0.85	26
Muyenga Road Boda Boda Stage	26 x 0.85	22
Total	107	92

3.5.2 Sampling Technique

The study employed probability sampling to select respondents. The researcher first used stratified sampling to identify the different boda boda stages. Then the researcher used simple random sampling to identify the accessible population from the set groups. These groups included; Payless, Shell Kabalgala, Ggaba stage and Muyenga Road Boda Boda Stage.

3.5.3 Samplings Procedure

The researcher divided the populations in the different groups by half (50%) to be the accessible population. Here the researcher used yes or no on papers where one who picked yes was considered for the study until the required sample was got.

3.6 Study variables

3.6.1 Dependent variable

The dependent variable was helmet use by boda boda cyclists

3.6.2 Independent variables

Independent variables was knowledge and attitude of boda boda cyclists in helmet use

3.7 Data collection

3.7.1 Data Collection techniques

The study involved collection of quantitative data through face-to-face interviews and Observation.

3.7.2 Data Collection tools

Data collection instruments included interview and observation checklists. Interviews were used because it enabled the researcher to get information from illiterate respondents and even ones who may not be in position to sit down and ask the questions.

3.7.2.1 Interview

A standardized interview containing both close ended (structured) and open ended (semi-structured) questions as guided by the specific objectives (refer to appendix II) was used. Using both close and open ended questions, new issues that would not otherwise have been captured using structured questions were collected in a semi-structured interview. The interview was written in English and translated in Luganda Language for all the respondents to understand.

3.7.2.2 Observation checklist

The researcher observed whether the boda boda cyclists actually possessed the helmets and whether they wore them whenever they were riding their motorcycles.

3.7.3 Data Collection Procedure

Interviews were administered to the respondents with the help of research assistants who were trained by the principal investigator before the beginning of the study. During administration of the interviews, research assistants checked for consistence and completeness of information obtained from the study participants so as to ensure reliability of the collected information.

3.8 Data management

Questionnaires were written in English and translated into Luganda language that was widely understood by the majority of the study participants. Research assistants who were trained in different aspects of the study were used to administer questionnaires to the study participants so as to minimize bias in the collected data. During administration of the questionnaires, research assistants checked for consistence and completeness of information obtained from the study participants so as to ensure reliability of the collected information.

Before closure, all questionnaires were double checked for completeness and approved for storage by the principal investigator. Questionnaires were stored in safety lockers under lock and key only be accessible by the principal investigator.

3.9 Data analysis and presentation

Data was cleaned, coded and entered into Microsoft Office Excel Version Seven. Descriptive statistics and bi-variate analysis were carried out using the Statistical package for social sciences (SPSS) version 16.0. Descriptive (univariate) data was presented as frequencies and percentages, and illustrated using frequency tables, pie charts and bar graphs.

At bi-variate level, a Chi square test was used to determine the association between the dependent and independent variables. Odds ratios (ORs), P values and their 95 % confidence interval was calculated. For all statistical tests a P-value of less than 0.05 will be considered significant.

3.10 Quality Control

A standardized interview containing both close ended (structured) and open ended (semi-structured) questions as guided by the specific objectives (refer to appendix II) was developed. Before the beginning the study, the research tool was pretested in a pilot study proposed to be carried out in Kabalagala Junction. This was to help make the necessary adjustments before the study was carried out in Kabalagala. Redundant questions that were not adding any value to the study were removed. The validity and reliability of the questionnaire was assessed using a content validity index (CVI) given by the following formula;

$$CVI = \frac{\text{No.of questions declared valid}}{\text{total No.of questions in the questionnaire}}$$

A minimum of 0.75 of CVI was used to test validity (Creswell, 2012).

To ensure reliability of the instrument, the researcher used the test-retest method. Here the questionnaire was given to 15 people and after one week, the same questionnaires were given to the same people and the Cronbach Alpha was computed using SPSS.

- There was translation of interview papers into Luganda language which was the local language understood by the majority of the respondents.
- The research assistants were trained by the principle investigator to assist in administration of interview schedules.
- Interviews were checked for consistence and completeness of information obtained from the study participants so as to ensure reliability of the collected information.
- Before closure, all answered interview papers were double checked for completeness and approved for storage by the principal investigator.
- The interviews were kept in safety lockers under lock and key and were only be accessible by the principal investigator.

3.11 Plan for dissemination

Results from the study were presented into a dissertation that was submitted to International Health Sciences University and the local administration of Kabalagala Boda Boda Stages of study and the area Local Council One Chairperson Office. A manuscript will be written for submission to a medical journal and presentation to various conferences.

3.12 Ethical Issues

All study protocols were presented for review and approval by institutional review board of International Health Sciences University School of Nursing sciences. Written informed consent was sought from all study participants before enrolment into study. For all collected data, confidentiality was maintained using participant identifiers.

3.13 Limitations of the study

Data on the knowledge, attitude and practices about helmet use was collected by self report. Self reporting may have limitations in that some respondents could withhold information regarding helmet use because of fear of traffic laws.

CHAPTER FOUR: RESULTS

4.0 Introduction

This chapter presents the study results in relation to the set specific objectives. These included; assessing the level of knowledge attitude and practices of boda boda cyclists towards helmet use in Kabalagala Parish.

4.1 Social Demographic characteristics of respondents N=92

Table 2: Social Demographic characteristics of respondents

Indicator	Characteristic	Total	Percentage
Age	18-30 years	52	57
	31-40 years	23	25
	41-50 years	13	14
	51 years and above	04	04
Marital status	Single	44	48
	Married	39	42
	Separated/divorced	07	08
	Widower	02	02
Education levels	No formal education	11	12
	Primary	47	51
	Secondary	31	34
	Tertiary	03	3
Working experience	Less than 5 years	35	38
	6-10 years	25	27
	11-15 years	21	23
	16-20 years	09	10
	21 years and above	02	02

As shown in the table 1 above, majority of the boda boda cyclists 52 (57%) were between 18 and 30 years with just a few 4 (4%) above 51 years and above. There were 44 (48%) who were singles with just 2 (2%) being widowers. Majority 47(51%) had primary education level of education, 31 (34%) had secondary education, 11 (12%) never had any formal education while 3 (3%) had tertiary education. There were 25 (27%) who had working experience less than less than 5 years, 25 (27%) had worked for 6 to 10 years while 2 (2%) had 21 years and above.

4.2 Knowledge of boda boda cyclists towards helmet use in Kabalagala Parish

Table 3: Knowledge of boda boda cyclists towards helmet use in Kabalagala Parish N=92

Indicator	Characteristic	Total	Percentage
Routine education about helmet use	Yes	26	28
	No	66	72
Uses of helmets	Prevention of injuries and anything that could impair vision	64	70
	Fashion and prevention of het from the sun	28	30
Best sources of helmets	Genuine health clinic for motorcycle spare parts	39	42
	Market, shops etc	53	58
Characteristics of a good helmet	A string that fastens at the chin, covers the whole head, hard enough, well ventilated.	73	58
	Nice looking with metallic glass	19	42
Frequency of cleaning a helmet	Everyday	23	25
	When it gets dirty	69	75
How long should an helmet last	Less than 2 years	51	55
	More than 2 years	41	46
Duration a helmet could be used	Less than six months	16	17.3
	Between 6 months and 2 years	35	38
	Between 2 and 4 years	28	30.4
	More than 4 years	13	14.1

As shown in the table 1 above, majority 66 (72%) of the boda boda cyclists never had routine education about helmet use despite the fact that 64 (70%) knew that helmet prevent injuries and other items that could impair the riders vision. To most 53(58%) boda boda cyclists markets and shops were the best sources while 39 (42%) reported genuine health clinics for motorcycle repairs. Characteristics of a good helmet were; a string that fastens at the chin, covers the whole head, hard enough, well ventilated 53 (79.3%) while 19 (20.7%) reported that it should be nice looking with a metallic glass. To 69 (75%) helmets were supposed to be cleaned their helmets only when they were dirty while a few 23 (25%) cleaned their helmets everyday. Respondents had mixed knowledge regarding the time a helmet could last. Majority 35 (38%) thought it is between 6 months and two years, 28 (30%) tought it is between 2 years and 4 years, 16 (17%) thought it is less than six months while the minority 13 (14%) reported tht it should be more than 4 years.

4.3 Attitude of boda boda cyclists towards helmet use in Kabalagala Parish N=92

Table 4: Attitude of boda boda cyclists towards helmet use in Kabalagala Parish

Indicator	Characteristic	Total	Percentage
Helmets are of benefit	Agreed	88	95.6
	Disagreed	04	4.4
It is important to always wear a helmet whenever riding a motorcycle	Agreed	56	61
	Disagreed	36	39
Helmets carry diseases	Agreed	68	74
	Disagreed	24	26
Helmets prevent head injuries	Agreed	67	73
	Disagreed	25	27
Helmets should be worn on ones wish or fashion	Agreed	54	59
	Disagreed	38	41
Helmet not increase temperatures	Agreed	57	62
	Disagreed	35	38
Helmets are not only for riders of very powerful engines	Agreed	78	84.8
	Disagreed	14	15.2
Helmets should be worn depending on weather conditions and hours of the day	Agreed	64	70
	Disagreed	28	30
Riders do not appreciate that helmet wearing is their own protection but not serving the law	Agreed	75	82
	Disagreed	17	18

Regarding attitudes of boda boda cyclists towards helmet use; majority 88 (95.6%) agreed the helmet were beneficial 56 (61%) agreed that it was always important wear a helmet whenever riding a motorcycle. It could be due to that fact that they knew that helmets prevented head injuries 67 (73%) where 40 (71.4%) had helmets and 78 (84.8%) believed that helmets are not only for riders of very powerful engines.

Boda boda cyclists however had negative attitude towards helmets use on issues such as; they thought that helmets carried diseases 46(68%), 57 (62%) believed that helmets increases temperatures, 54 (59%) thought the helmets should be worn on ones wish or fashion, while others believed that helmets should be worn depending on weather conditions and hours of the day 64 (70%) and 75 (82%) of the riders did not appreciate that helmet wearing is their own protection but not serving the law.

4.4 Practices of the boda boda cyclists towards helmet use

Table 5: Practices of the boda boda cyclists towards helmet use N=92

Indicator	Characteristic	Total	Percent
Have you ever used a helmet	Yes	75	81
	No	17	19
Had helmet despite not being with them at the time of study	Yes	73	79.4
	No	19	20.6
Had helmets with them at the time of study	Yes	52	56.5
	No	41	43.5
Frequency of helmet use	Only when riding	63	69
	When it is not sunny	29	31
	All the time	05	
Provided helmet for passenger	Yes	17	19
	No	75	81
Reasons for not providing helmets	Most passengers do not like them	42	56
	Lack of helmets	23	31
	Weaknesses of traffic law enforcers	10	13
Regularly wore helmets	Yes	35	38
	No	57	62
Reasons for not fastening the helmet very well	Led to suffocation	31	54
	Impaired hearing ability	16	27
	Increased temperatures	11	19
Always fastened their helmets well	Yes	34	37
	No	58	63
Strategies to improve helmet use	Enforcing traffic laws	42	46
	Sensitizing and educating on helmet use	23	25
	Subsidizing helmet prices	16	17
	Maintaining good hygiene	11	12

From the tables above; 75 (81%) of the boda boda cyclists had ever used helmets, 73 (79.4%) had helmets but 52 (56.6%) current had helmets during the time of study. Majority 63(69%) reported that they only used helmets only when they were riding and 57(62%) never regularly wore helmets.

There were 75 (81%) never provided helmets for the passengers mainly because according to 42 (56%) of boda boda cyclists, passengers never liked them in fear of being infected with unknown infections. Findings showed that 58 (63%) reported that they never always fastened their helmets before riding where 31 (54%) feared to suffocate, 16 (27%) complained of impaired vision and

11 (19%) feared increased temperatures. Finally 42 (46%) suggested enforcing traffic laws, 23 (25%) suggested sensitizing and educating helmet use, 16 (17%) suggested subsidizing helmet prices and 11 (12%) suggested maintenance of good hygiene.

4.4.2 Findings from the observations

Table 6: Findings from the observations N=92

Indicator	Characteristic	Total	Percent
Had helmets	Yes	52	56.5
	No	40	43.5
Provided helmet for passenger	Yes	17	19
	No	75	81
Fastened their helmets well	Yes	43	46.7
	No	49	53.3

From observations, 52(56.5%) had helmets, 75 (81%) of the respondents never provided helmets to their passengers and 43 (46.7%) fastened their helmets before riding.

4.4 Bivariate analysis of variables

Table 7: Bivariate analysis of variables

Indicator	Characteristic	Had helmets	Never had helmets	Total	Percent	P-Value
Social demographic characteristics						
Age	Below 30 years	22	30	52	57	0.0017
	Above 30 years	30	10	40	43	
Marital	Singles	19	27	44	48	0.0029
	Married	33	13	48	52	
Level of education	Low level	26	32	58	63	0.0031
	High levels	26	08	34	37	
Knowledge						
Routine education about helmet use	Yes	24	2	26	28	0.0000
	No	28	38	66	72	
Best sources of helmets	Genuine health clinic for motorcycle spare parts	13	26	39	42	0.0001
	Market, shops etc	39	14	53	58	
Characteristics of a good helmet	String that fastens at the chin, covers the whole head, hard enough, well ventilated.	41	12	53	58	0.0000
	Nice looking with metallic glass	11	28	39	42	
Frequency of cleaning a helmet	Everyday	19	04	23	25	0.0035
	When it gets dirty	33	36	69	75	
How long should an helmet last	Less than 2 years	37	14	51	55	0.0005
	More than 2 years	15	26	41	46	
Attitude						
Helmets carry diseases	Agree	32	46	68	74	0.0001
	Disagree	20	04	24	26	
Helmets prevent head injuries	Agree	46	21	67	73	0.0000
	Disagree	06	19	25	27	
Helmets should be worn depending on weather conditions	Agree	30	34	64	70	0.006
	Disagree	22	6	28	30	
Do not appreciate that helmet is their own protection but not serving the law	Agree	38	37	75	82	0.0292
	Disagree	14	03	17	18	
Total		52	40	92		

Study findings showed that, out of the 92 respondents used in this study. The level of significance among the variables that influenced helmet use was determined by measuring the different indicators in social demographic, knowledge and attitude against the number of boda boda cyclists who had helmets against those that never had helmets at the time of study. Findings showed that 52 boda boda cyclists were found with helmets at the time of study while 40 never had helmets.

Bivariate association between variables was such that; age was one of the significant factors ($P=0.0017$) that influenced helmet use. Majority 52(57%) of the respondents were below 30 years and majority of them 30 (52.6%) who never had helmets were below 30 years. On the other hand 30(69.7%) who were above 30 years had helmets.

Marital status was significant ($P=0.0029$) where 58 (63%) were married were 33(56.9%) had helmets. Possession of helmets was higher among married respondents compared to single respondents at 33(63.5%) to 19(36.5%) respectively.

Majority 58(63%) of respondents had low levels of education ($P=0.0031$). Low levels of education consisted of people who had primary levels of education and those without any formal education while higher levels were ones with secondary and tertiary levels of education. It was found out that majority 32 (80%) of boda boda cyclists who never had helmets had low levels of education compared to 8(20%) boda boda cyclists who had higher levels of education.

As shown in the table above, majority of the boda boda cyclists 66 (72%) did not receive routine education about helmet use ($P=0.0000$) and 38(57%) never had helmets where they constituted of 95% of the respondents without helmets. Majority 58 (63%) of boda boda cyclists thought that helmets should be bought from shops and markets. Findings also show that higher helmet possession was among boda boda cyclists who bought helmets from shops and markets 39 (75%).

Regarding the characteristics of a good helmet, 53(58%) knew that a good helmet should have a string that fastens at the chin, covers the whole head, hard enough, well ventilated (0.0000). majority of them 41 (79%) had helmets.

Frequency of cleaning of helmets was such that; 69(75%) thought that a helmet should only be cleaned when it get dirty ($P=0.0035$) where 36(52%) of them never had helmets, and majority

51(55%) wrongly thought that a helmet lasts for less than 2 years ($p=0.0005$) where 37(72%) had helmets.

Regarding attitudes of boda boda cyclists towards helmet use; majority 68 (74%) wrongly believed that helmets carry diseases where 36 (90%) never had helmets.

Majority 67 (73%) agreed that helmets prevented injuries ($P=0.0000$) where 46 (68.7%) had helmets. Among cyclists who had helmets 46 (88.5%) agreed that they prevented injuries.

There were 64 (70%) wrongly believed that helmets should be worn depending on weather conditions and hours of the day where 34(53.1%) never had helmets ($P=0.0006$). Among the respondents who never had helmets those who believed that helmets should be worn on wish were 34(80%).

There were 75(82%) who did not appreciate that helmets were meant for their own protection but not serving the law ($P=0.0292$). Majority 38(51%) of them had helmets which could have resulted from feared to be caught by traffic law enforcers.

CHAPTER FIVE: DISCUSSION OF RESULTS

5.0 Introduction

This chapter presents the general discussion of the study findings in relation to the specific objectives

5.1 Discussion of results

5.1.1 Knowledge of boda boda cyclists towards helmet use in Kabalagala Parish

Study findings showed that, out of the 92 respondents used in this study; 66(72%) did not receive routine education about helmet use (0.0000) and 38(57%) never had helmets. The study found out most of the respondents that had not received education about helmet use which made them ignorant about its importance. On the contrary, 70% of the respondents in a study done in China never had formal training on helmet use (Xuequn et al, 2011). Policy implication: the government through the Ministry of Health and transport has not done enough to sensitize the cyclists of the importance of wearing helmets whenever they are riding. This could be rectified through proper education and enforcing traffic laws so that riders observe them

Majority 64(70%) knew the uses of helmets (P=0.0000) where 45(70%) had helmets. A few respondents who were educated about helmet uses and knew the law implications knew the uses and most of them had helmets. Similarly in a study in most developing countries cyclists know that motorcycle helmets reduce the risk of mortality and head injury in motorcycle riders who crash (WHO, 2006). Similar findings were got in USA, where it was found that helmet use reduces fatality risk by 34% (Dee, 2009). Policy implication: the government argues all automobile sellers and dealers to possess guide manuals to the power engine machines they sell so that the buyers read and know how they are used. Even before issuing them with driving permits, cyclists are supposed to be educated about how to operate such machines. This helps the different boda boda cyclists to know the uses of helmets.

Also 53(58%) knew that a good helmet should have a string that fastens at the chin, covers the whole head, hard enough, well ventilated (P=0.0000) 41 (77%) had helmets. This was good knowledge which about the ways they could use helmets. Despite the quality of the helmet one possessed, they knew how they could use them which was good knowledge. All health workers who health educate the boda boda cyclists should emphasize the importance of knowing how to

use helmets in that if they get good helmets they would be in position to use them well. Policy implication: the government through the National Bureau of Standards tries very much to regulate the standard of goods and services offered to the general public by assessing their quality. The government recommends helmets that cover the whole head and the chin with a string that can tighten it very well that in case of any accident the victim faces less harm. It's however observed that most of the helmets used do not meet the required standards which makes them less useful in case in of an accident.

However, 53(58%) of the respondents did not know that the best helmets could be got from genuine health clinic for motorcycle spare parts ($P=0.0001$) and 39(74%) had bought the helmets from shops and markets. This implied that they did not know where they could acquire good helmets where as others wanted to save because helmet bought from shops where cheaper than those bought from genuine dealers.

Majority 69(75%) of the respondents wrongly thought that helmets should only be cleaned when it get dirty ($P=0.0036$) and 36(52%) of them never had helmets. In normal circumstances, a helmet should at least be cleaned daily because of the sweat it acquires during the day. Some helmets might appear clean but carrying. This would even minimize the rate of infections that could be got from them. This could be due to a negative (Xuequn et al, 2011) in a study on the prevalence rates of helmet use among motorcycle riders in a developed

Majority 51(55%) of the respondents wrongly thought that a helmet lasts for less than 2 years where 37(72%) had helmets. This implied that most boda boda cyclist had low quality helmets because a helmet is expected to last more than 2 years. Policy implication: The government should ensure that high quality helmets are sold to cyclists such that when they are sold to cyclist and get accidents they might face fatal effects such as death or permanent disabilities.

5.1.2 Attitude of boda boda cyclists towards helmet use in Kabalagala Parish

Findings showed that, majority of the respondents had a positive attitude that it was always important wear a helmet whenever riding a motorcycle. It could be due to that fact that they knew that helmets prevented head injuries 67(73%) ($P=.0005$) where 40(71.4%) had helmets.

They however had a negative attitude towards helmets use on issues such as; they thought that helmets carried diseases 46(68%) ($P=0.0001$) where 46(68%) never had helmets. This implied

that some boda boda cyclists feared wearing helmets due to fear of diseases especially when they did not possess one. Some passengers also feared infections and refused helmets despite some riders having them. In health care, most of the helmets are not regularly cleaned which makes them dangerous as they carry pathogens. On the contrary, cyclists did not believe that helmets carried diseases and they were free to wear them (Pucher et al, 2010)

Some 54(59%) respondents thought that helmets should be worn on ones wish or fashion ($P=0.0000$) where 30(56%) never had helmets. This implied that they never realized the importance of wearing helmets as some of the respondents perceived them as inconveniencing. It could be due to that fact that majority of them had low quality helmets that were not attractive to the users to wear them regularly. The findings indicate a considerable increase in helmet use with respect to prior years, providing evidence in favour of government policies (Ledesma, et al, 2015). Policy implications: the government should ensure that, both fashionable and purpose intended (prevent injuries) helmets should be designed and sold to users so that they serve all the desired interest one would love when using helmets. In a study in Tanzania, most cyclists had never attended any well organized road safety campaigns on minimizing head injuries where helmet use would be one of the major ones. The study concludes by arguing for the need to enforce laws to those who violate the rules by being fined or withholding their licenses to alleviate motorcycle accidents in Morogoro municipality (Mwakapasa, 2011).

Helmets should be worn depending on weather conditions and hours of the day 64(70%) and riders do not appreciate that helmet wearing is their own protection but not serving the law 75(82%) ($P=0.0292$) where 36(51%) had helmets. This implied that, they were just forced to use helmets but did not realize why they had to use them. This was very dangerous to their health because an accident can happen any time on any weather. Similarly, Fadekemi, et al., (2007) the majority (67.3%) favored the enforcement of crash helmet while others would reject the idea. In a similar study done in Argentina, the results show an incidence of helmet use of 69.8% for drivers and 43.4% for passengers. Helmet use was greater among women. Environmental and temporal conditions were related with the rate of helmet use where there was less helmet use during hot conditions and vice versa (Ledesma, et al, 2015). Policy implication: the manufacturers of helmets should put it into consideration users from different areas of the world with different weather conditions should have helmets that suit their weather conditions and the National Bureau of Standards should consider this when they are importing such products.

5.1.3 Practices of boda boda cyclists towards helmet use in Kabalagala Parish

Findings showed that 75(86%) of the respondents wore helmets only when they were riding which was a good practice ($P=0.0292$) where 38(51%) had helmets. This implied that they knew when helmets were most needed which was a good practice. Also it could be due to the fact wearing the helmet throughout increased temperatures which was inconveniencing to the user. Policy implication: literally helmets should be worn when riding because they are meant to save the rider from injuries and they are known to happen when riding.

There were 75(81%) of the respondents never provided helmets to their passengers ($P=0.0035$) where 38(51%) never had helmets. Since a good number of boda boda cyclists never had helmets for themselves it was difficult for them to possess helmets they could give to their clients and yet some passengers never liked them because they never had good hygiene. Policy implication: according to traffic law a motorcycle is supposed to carry two people at a time; that is the rider and the passengers and has to have two helmets. It is however observed that even the traffic law enforcers do not insist on a boda boda having two helmets which leaves the life of the passengers at risk because most of them do not have them. It could have be to a perception some pass angers have that that helmets carry diseases, so they hate wearing them.

Also another good practice was portrayed where 63(69%) fastened their helmets before riding ($P=0.0000$) where 45 (71%) had helmets. A mere wearing of a helmet does not save a rider from injuries in case of an accident but fastening it increases the level of safety because it cannot easily go off the head. Policy implication: government recommends helmets with fastening belts that ensure that it serves it required purpose but there are other helmets allowed onto the market and do not meet the required standards. This puts the life of the riders at risk in case of accidents and should not be allowed in shops and other outlets.

5.2 Discussion of bivariate relationship between variables

The level of significance among the variables that influenced helmet use was determined by measuring the different indicators in social demographic, knowledge and attitude against the number of boda boda cyclists who had helmets against those that never had helmets are the time of study. Findings showed that 52 boda boda cyclists were found with helmets at the time of study while 40 never had helmets.

Bivariate association between variables was such that; age was one of the significant factors ($P=0.0017$) that influenced helmet use. Majority 52(57%) of the respondents were below 30 years and majority of them 30 (52.6%) who never had helmets were below 30 years. On the other hand 30(69.7%) who were above 30 years had helmets. This implied that majority of boda boda cyclists who were young may not have realized the need to have helmets because most of them were assumed to have lesser responsibilities than older people. In nursing practice, age was a great predictor of knowledge and attitude towards different aspects of life. Policy-wise, every rider should possess a driving permit which is based on age on issuing. It implies that one develops experience about traffic as age increases.

Marital status was significant ($P=0.0029$) where 58 (63%) were married were 33(56.9%) had helmets. Possession of helmets was higher among married respondents compared to single respondents at 33(63.5%) to 19(36.5%) respectively. Higher helmet possession being among married respondents meant that these respondents felt being more responsible because they had people to look after at home.

Majority 58(63%) of respondents had low levels of education ($P=0.0031$). Low levels of education consisted of people who had primary levels of education and those without any formal education while higher levels were ones with secondary and tertiary levels of education. It was found out that majority 32 (80%) of boda boda cyclists who never had helmets had low levels of education compared to 8(20%) boda boda cyclists who had higher levels of education. Similarly, Fadekemi et al (2007) in a study in Nigeria Nigerian Commercial motorcyclists in the use of crash helmet and other safety measures, traffic injury prevention, Commercial motorcycling was essentially done by males who did not received formal training for the job; hence, they lacked adequate knowledge and practice of road safety measures. They did not know that it was a traffic laws requirement that whoever travels on a motorcycle should wear a helmet to minimize or prevent head injuries in cases of an accident.

As shown in the table above, majority of the boda boda cyclists 66 (72%) did not receive routine education about helmet use ($P=0.0000$) and 38(57%) never had helmets where they constituted of 95% of the respondents without helmets. Majority 58 (63%) of boda boda cyclists thought that helmets should be bought from shops and markets. Findings also show that higher helmet possession was among boda boda cyclists who bought helmets from shops and markets 39 (75%). This implied that, helmets from shops and markets were easier to access possibly due to

low prices. Similarly, Xuequn et al (2011) in a study in China, revealed that respondents who wished to wear helmet did not know how best they could use them for high performance.

Regarding the characteristics of a good helmet, 53(58%) knew that a good helmet should have a string that fastens at the chin, covers the whole head, hard enough, well ventilated (0.0000). majority of them 41 (79%) had helmets. This implied that, they had good knowledge about helmet use where they possessed them to save their lives.

Frequency of cleaning of helmets was such that; 69(75%) thought that a helmet should only be cleaned when it get dirty (P=0.0035) where 36(52%) of them never had helmets, and majority 51(55%) wrongly thought that a helmet lasts for less than 2 years (p=0.0005) where 37(72%) had helmets. Similarly, Twagirayezu, et al (2008) in a study on road traffic injuries at Kigali University Teaching Hospital, Rwanda, found out motorcycle riding in this area is almost exclusively men, most of whom do it for commercial purposes. Majority of the motorcycle riders do not have helmets and the few who have them do not properly maintain them.

Regarding attitudes of boda boda cyclists towards helmet use; majority 68 (74%) wrongly believed that helmets carry diseases where 36 (90%) never had helmets. This could be true if they do not clean them regularly but a well cleaned helmet can hardly lead to infections.

Majority 67 (73%) agreed that helmets prevented injuries (P=0.0000) where 46 (68.7%) had helmets. Among cyclists who had helmets 46 (88.5%) agreed that they prevented injuries. This was a positive attitude because a good helmet that is used properly minimizes the fatality caused to the head in case of accidents. In health care, it is recommended that drivers of power engines protect themselves against harm in case of accidents where helmets are the recommended strategy for cyclists.

There were 64 (70%) wrongly believed that helmets should be worn depending on weather conditions and hours of the day where 34(53.1%) never had helmets (P=0.0006). Among the respondents who never had helmets those who believed that helmets should be worn on wish were 34(80%). This was negative attitude because helmets should be worn all the time because accidents happen anytime without prior notice. In health care setting helmet use should not be dependent on weather or temporal conditions of the day since protection is needed all the time. Policy-wise the government has laxity during certain hours of the day as far as enforcing traffic

laws are concerned. At night less emphasis is put on observation of traffic laws which creates thinking among road users that they should not follow traffic laws at certain hours of the day.

Finally, there were 75(82%) who did not appreciate that helmets were meant for their own protection but not serving the law ($P=0.0292$). Majority 38(51%) of them had helmets which could have resulted from fear to be caught by traffic law enforcers. This implied that some respondents wore helmets because they failed to be imprisoned or penalized for non use. There are weaknesses in education and sensitization programs aimed at helmet use which creates thinking among users that helmet use is meant to serve the laws others than their own safety. Similarly, Mwakapasa, (2011) in a study carried out in Tanzania noted that, possession of helmet may be one of the determinants of helmet use. However, very few motorcyclists wear helmets for preventive purposes and many just do because they don't want to be caught by law.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the conclusions and recommendations to the study findings

6.1 Conclusion

Study findings showed that, out of the 92 respondents used in this study; did not receive routine education about helmet use and some never had helmets.

Respondents had good knowledge about helmet use where; knew their uses, knew that a good helmet should have a string that is fastened at the chin, covers the whole head, hard enough and well ventilated thought that a helmet should only be cleaned when it gets dirty. It was however found out that most of them never knew the life span of a helmet and wrongly thought that a helmet lasts for less than 2 years and did not know that the best helmets could be got from genuine health clinics for motorcycle spare parts.

Findings showed that, respondents had negative attitude where majority thought that helmets carried diseases, thought that helmets should be worn on ones wish or fashion, helmets should be worn depending on weather conditions and hours of the day and riders did not appreciate that helmet wearing is their own protection but not serving the law. However, some respondents thought that it was always important to wear helmets whenever riding motorcycles. It could be due to that fact that they knew that helmets prevented head injuries.

Findings showed respondents had poor practices towards helmet use where; wore helmets only when they were riding which was a good practice, and fastened their helmets before riding where had helmets. However they never provided helmets to their passengers.

6.2 Recommendations

6.2.1 Government

- The government should ensure that they create more awareness among boda boda cyclists through education and sensitization about the traffic law through the law enforcers such as the traffic police. This could be through different avenues such as print and electronic media.
- They should penalize any boda boda cyclists who wrongly use helmets.

6.2.2 Policy makers

- They should make policies that the government may base on to formulate bills that will ensure regular use of helmets.
- They should study about the factors that hinder cyclists from accessing the right knowledge, attitude and practices towards helmet use.

6.2.3 Traffic Police

- They should always educate all cyclists about the importance of riding with a helmet. This should be done through different avenues such as media and public gatherings or even on particular boda boda stages.
- They should organize workshops and seminars aimed at educating about traffic laws with emphasis on the importance of helmet use.
- They should arrest and take to courts of law all cyclists who ride without helmets. This would instill fear among cyclists and develop a positive attitude towards helmet use.

6.2.4 Boda boda cyclists

- They should always seek information on the use of helmets. This will enhance their awareness on the importance, quality and maintenance of helmets as regards their job.
- They should always buy helmets from genuine dealers so that they get ones of good quality. These will save the fatality to their heads in case of accidents
- They always clean their helmets so that everybody is attracted to wear them without any fear of related infections.
- They should not wear helmets for fashion but should realize the importance of regular wearing as it reduces the rate of head injuries when riders get accidents. They should follow the traffic laws for proper guidance in helmet use. Helmet should always be worn irrespective of the hour of the day irrespective of the weather because accidents happen any time.
- Should carry helmets for passengers because they are equally affected by injuries.

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APPENDIX I: CONSENT FORM

RESEARCH PARTICIPANT BACKGROUND INFORMATION

Dear Respondent, I am Namwanga Lunkuse Florence, a student of International Health Sciences University Kampala pursuing a bachelor's degree in Nursing Science. You are requested to participate in this study about; **Knowledge, Attitude and Practices of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries.** Information provided will be confidential and strictly for research purposes only. Your time and cooperation will highly be appreciated.

STUDY TITLE: KNOWLEDGE, ATTITUDE AND PRACTICE OF COMMERCIAL MOTORCYCLISTS IN KABALAGALA TOWARDS HELMET USE IN PREVENTION OF HEAD INJURIES

Purpose of the study

This research study is being done to satisfy the requirements for the award of degree of bachelors of Nursing Sciences (BNS) of International Health Sciences University (IHSU). In this study, the level of knowledge, attitude and practice of commercial motorcyclists in Kabalagala Trading Centre towards helmet use in prevention of head injuries will be determined. This data shall be used to establish the relationship between helmet use and the incidence of head injuries among boda boda cyclists.

How the study is done

Study personnel will seek for verbal consent from boda boda cyclists in Kabalagala Trading Centre to participate in a brief demographic survey. Written informed consent will be obtained before enrolment into the study. Using a standardized interview guide, demographics, clinical data and other indicators of knowledge, attitude and practices of boda boda shall be obtained with the help of research assistants. Boda Boda cyclists will be assessed for awareness and practice baing on their practices towards helmet use.

Procedures

Demographic data shall be obtained from the study participants by self report. Specific measurements dependent on the age, gender, levels of education and religion will be considered.

Risks and discomforts

Confidentiality: Participation in research may involve a loss of privacy, but information about you will be handled as confidentially as possible. Information related to helmet use will be collected from you and only the study personnel will have access to this information. Records will be kept as confidential as possible. The study participants will not be identified by name. You will also have the right to request and see the information collected during this study.

Benefits

Your participation in the study will allow for collection of information that may be useful in the following ways;

- (a) Improving the knowledge of boda boda cyclist towards helmet use through continuous awareness efforts based on the findings. This will help identify their strength and weaknesses on helmet use.
- b) In Kabalagala Trading Centre, this data may be used to address accident problems such as head injuries due to non helmet use through enhancing education programs road and traffic safety measures for better service delivery.
- (c) To the Policy makers, the findings of this study may be a basis to enable the Ministry of Health and Kabalagala Trading Centre develop evaluation and follow up tools for traffic laws enforcers in practice particularly for boda boda cyclists who do not wear helmets.

Cost/Payment

Your participation is entirely voluntary. You will thus not be paid for participation in the study. However, care to you shall be provided as part of community members who need education about helmet use.

Alternatives to participation

Your participation in this study is completely voluntary. If you decide that you do not want to participate in the study or decide to withdraw from the study at any time and for any reason, this will not affect your care at the outpatient department.

Consequences of withdrawal

Should you decide to withdraw from the study at the beginning, then no further action can be taken.

Use of the results

The findings from this study may be published in a medical journal. After the study is completed, you may request an explanation of the study results.

Voluntary participation

Participation in this study is entirely voluntary. You have the right to refuse participation or to withdraw at any point in this study without negative consequences or loss of benefits to which you are otherwise entitled.

Implication of your signature or thumbprint

If you give consent to participate in this study, you should sign or place your thumbprint in the consent form. Your signature or thumbprint below means that you understand the information given about your participation in the study and in the consent form.

APPENDIX II: INTERVIEW

Title: Knowledge, Attitude and Practices of motorcyclist in Kabalagala Town towards helmet use in prevention of head injuries.

SECTION A: Socio-Demographic Characteristics

1. How old are you?

a) 18-30 years	<input type="checkbox"/>	b) 31-40 years	<input type="checkbox"/>
c) 41-50 years	<input type="checkbox"/>	d) 51 years and above	<input type="checkbox"/>

2. What is your marital status?

a) Single	<input type="checkbox"/>	b) Married	<input type="checkbox"/>
c) Separated	<input type="checkbox"/>	d) Divorced	<input type="checkbox"/>
e) Widow/widower	<input type="checkbox"/>	f) Others (specify)	

3. What is your level of education?

a) No formal education	<input type="checkbox"/>	b) Primary	<input type="checkbox"/>
c) Secondary	<input type="checkbox"/>	d) Tertiary education	<input type="checkbox"/>
e) Others, (specify)			

4. What is your level of working experience?

a) Less than 5 years	<input type="checkbox"/>	b) 6-10 years	<input type="checkbox"/>
c) 11-15 years	<input type="checkbox"/>	d) 16-20 years	<input type="checkbox"/>
e) 21years and above	<input type="checkbox"/>		

SECTION B

Knowledge of motorcyclist towards helmet use in prevention of head injuries

Instruction: Tick the most appropriate answer or give your own view where applicable

1. Have you ever heard of head helmets?

a) Yes	<input type="checkbox"/>	b) No	<input type="checkbox"/>
--------	--------------------------	-------	--------------------------

2. What are head helmets used for?

a	Prevention of injuries and anything that could impair vision	
b	Fashion and prevention of het from the sun	

3. What is the best source of the net?

a	Shop, market	
b	Pharmacy, Drug shop, health centre, others.	
c	At genuine Motorcycle spare parts outlet	

4. i) Do you get routine education about helmet use?

a) Yes b) No

5. i) Can you mention any traffic law about helmet use?

a) Yes b) No

ii) If yes, mention them

.....

.....

.....

6. Do you know the characteristics of a good helmet?

a	A string that fastens at the chin, covers the whole head, hard enough, well ventilated.	
b	Nice looking with metallic glass	

7. How often should a helmet be washed?

a	Every day	
b	When it gets dirty	

8. i) How long should a helmet last?

a	Less than six months	
b	Between 6 months and 2 years	
c	Between 2 and 4 years	
D	More than 4 years	

SECTION C

Attitude of motorcyclist towards helmet use in prevention of head injuries

Instruction: Tick the most appropriate answer or give your own view where applicable

No	Item	SD	D	NT	A	SA
1	Helmets are of benefit					
2	It is important to always wear a Hemet whenever riding a motorcycle					
3	Helmets carry diseases					
4	Helmets prevent head injuries					
5	Helmets should be worn on ones wish or fashion					
6	Helmet increase temperatures					
7	Helmets are for riders of very powerful engines					
8	Helmets should be worn depending on whether conditions and hours of the day					
9	Helmets are for elderly people					
10	Riders do not appreciate that helmet wearing is their own protection but not serving the law					
11						

SECTION D

Practices of motorcyclist in Kabalagala Town towards helmet use in prevention of head

Instruction: Tick the most appropriate answer or give your own view where applicable

The researcher will also use the observation checklist below on issues regarding respondents' practices on helmet use.

1. Have you ever used a helmet?

a) Yes b) No

2. Do you have a helmet?

a) Yes b) No

3. Do you use the helmet?

a) Yes b) No

4. How often do you put on the helmet?

- a) Only when riding b) When it is not sunny
 a) All the time d) Others (specify).....

5. Do you provide your passengers with the helmet?

- a) Yes b) No

ii) If no give the reasons

.....

6. Do you always fasten your helmet very well before riding?

- a) Yes b) No

ii) If no give the reasons

.....

7. In your opinion what do you think should be done to promote helmet use?

.....

Observations about helmet use

No	Question	Response	
	Item	Yes	No
1	All boda boda had at least on helmet		
2	All boda boda had at two helmets		
3	Helmets were worn all the time		
4	Some cyclists never wore helmets though they had them		
5	During sunny days helmets were not worn		

Thanks for your cooperation

APPENDIX III: MAP SHOWING THE LOCATION OF THE STUDY AREA



APPENDIX IV: INTRODUCTORY AND CORRESPONDENCE LETTER



making a difference in health care

Office of the Dean, School of Nursing

Kampala, 14th October 2016

TO THE CHAIRPERSON OF
PANTALEO ZONE KABALAGALA
PARISH, MAKINDYE DIVISION
KAMPALA DISTRICT.

Was received and
Successfully carried out
the study in the
stages in the Council
KCCA Kabalagala
Date: 19/10/2016
KABALAGALA WARD

Dear Sir/Madam,

RE: ASSISTANCE FOR RESEARCH

Greetings from International Health Sciences University.

This is to introduce to you **Namwanga Florence Lunkuse**, Reg. No. **2013-BNS-TU-027** who is a student of our University. As part of the requirements for the award of a Bachelors degree in Nursing of our University, the student is required to carry out research in partial fulfillment of her award.

Her topic of research is: **Knowledge attitude and practices of commercial motorcyclists in Kabalagala towards helmet use in prevention of head injuries**

This therefore is to kindly request you to render the student assistance as may be necessary for her research.

I, and indeed the entire University are grateful in advance for all assistance that will be accorded to our student.

Sincerely Yours,


★ 14 OCT 2016 ★
Ms. Agwang Agnes
Dean
School of Nursing
Box 7782, Kampala - Uganda

Received
19/10/2016
KCCA
Date: 19/10/2016
KABALAGALA WARD

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