

**Knowledge, attitudes and practices towards compliance of helmet use among motorcycle drivers in Kinondoni, Dar Es Salaam**

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**Master degree of Public Health Dissertation  
Muhimbili University of Health and Allied Sciences  
October, 2018**

**MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES**



**KNOWLEDGE, ATTITUDES AND PRACTICES TOWARDS COMPLIANCE OF  
HELMET USE AMONG MOTORCYCLE DRIVERS  
IN KINONDONI, DAR ES SALAAM**

By

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**A Dissertation submitted to the School of Public Health and Social Sciences in partial  
Fulfillment of the requirements for the award of Master degree of Public Health of**

**Muhimbili University of Health and Allied Sciences**

**October, 2018**

## **CERTIFICATION**

The undersigned certify that, she has read and hereby recommended for examination by Muhimbili University of Health and Allied Sciences a dissertation entitled Assessment of knowledge, Attitudes and practices towards compliance of helmet use among motorcycle drivers in Kinondoni, Dar es Salaam in partial fulfillment of the requirements for the Degree of Masters of Public Health of Muhimbili University of Health and Allied Sciences

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Dr. Idda Masha  
(Supervisor)

## DECLARATION AND COPYRIGHT

I, **Dora Shayo**, declare that this **dissertation** is my original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

Signature.....

Date.....

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## **ACKNOWLEDGEMENT**

First, I would like to thank God who gave me and my family health and strength to be able to finish my dissertation

I would like to thank and express my appreciation to my supervisor Dr Idda Mosha for her guidance, counseling, encouragement and appropriate supervision with my dissertation.

I am also grateful to my fellow MPH students for support and suggestions they have given me at different levels of preparation of the study. I would also like thank my research assistants Mr. Rene, Franco & Godbless who worked honestly and diligently during data collection.

Sincere gratitude also goes to my husband H John who gave me emotional, social, material as well as spiritual support throughout my studies. I am also grateful to my children Irene and Brighton for inspiration.

Last but not list a grateful acknowledgement to the participants/interviewers who committed their time to respond the questionnaire and provide the needed information.

## **DEDICATION**

I dedicate this dissertation to my family.

## **ABSTRACT**

### **Introduction**

Motorcycle injuries constitute a major but neglected emerging public health problem in developing countries including Tanzania and are a common cause of road traffic injuries.

Prevalence of death and injuries due to motorcycle accidents in Tanzania is a significant public health issue. In Tanzania, death due to motorcycle crash makes 26% among all road users and Dar es Salaam being the mostly affected region where 54% of all motorcycle accidents in Tanzania being reported.

The aim of this study was to assess knowledge, attitude and practices towards compliance of helmet use among motorcycle drivers at Kinondoni in Dar es Salaam.

### **Materials and methods**

Cross sectional study design was used to assess knowledge, attitude and practices towards compliance of helmet use among motorcycle drivers at Kinondoni district in Dar es Salaam region. Social demographic, knowledge, attitude and practices information was collected from 388 motorcycle drivers towards compliance of helmet use in Kinondoni Dar es Salaam. The collected data was descriptively analyzed using SPSS computer software package.

### **Results**

This study shows high level of knowledge, positive? Attitude towards compliance of helmet use among motorcycle drivers at Kinondoni district in Dar es Salaam city. The reported knowledge and attitude is associated with awareness of safety measure, and realizing the benefit of compliance of helmet use which shows p-Value of less than 0.05, suggesting strong association between knowledge, attitudes and compliance of helmet use.

**Conclusion:** There is high level of knowledge, positive attitude towards compliance of helmet use among motorcycle drivers in Dar es Salaam. The study also revealed high awareness of safety measures and benefits of using helmets among motorcycle drivers. Therefore, continued education is needed among motorcyclists and general population on the importance of using helmet when using motorcycles.

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## **Abbreviations**

DALYs= Disability-Adjusted Life Years

IRB=Institution Review Board

LMICs = low and middle-income countries

MUHAS=Muhimbili University of Health and Allied Sciences

RTIs =Road Traffic Injuries

RTA=Road Traffic Accidents

SPSS=Statistical Package for Social Science

WHO = World Health Organization

WPR =Western Pacific Region

## **Definition of Terms**

**Compliance:** Compliance is either a state of being in accordance with established guidelines or specifications, or the process. In regarding to the study, it is when the motor cycle drivers will use of helmet correctly wear it all the time when they are driving motor cycles.

**Knowledge:** is a facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject.

## CHAPTER ONE

### 1:1.Background

#### Introduction

With the rapid expansion of motor vehicle use in low and middle income countries, road traffic related death and injuries are increasing sharply [1]. Projections show that, between 2000 and 2020, road traffic deaths will decline by about 30% in high income countries but increase substantially in low and middle income countries [2]. Without appropriate action, by 2020, road traffic injuries are predicted to be the third leading contributor to the global burden of disease and injury [3]. More than one million people died from road traffic crashes in low and middle-income countries in 2000; according to the World Health Organization, that number could nearly double by 2020. Every day thousands of people are killed and injured in traffic accidents. Millions of people each year spend many weeks in hospital after severe crashes and many will never be able to make a living, work or play as in the past. More than half of the people killed in traffic crashes are young adults aged between 15 and 44 years and often individuals who support their family with their earnings. Motorcycle accidents account for a large proportion of road traffic accidents in Tanzania and the riders of these motorized vehicles have a high risk of injuries or death [4]. Motorcycle accidents are associated with a high incidence of head injuries. Health care costs due to head injuries are not affordable for an average citizen in a country where health insurance is not that common [5]. Evidence exists to suggest that use of helmets can reduce the risk and occurrence of both head injuries and death due to motorcycle accidents and in turn reduce hospitalization and morbidity [6]. A study by Moskal et al., 2008, observed that helmet use significantly decreased the risk of head and facial injuries. The study also reported that there was however no association between helmets uses and the occurrence of neck or cervical spine injuries. It concluded that helmets protect users of motorized two-wheel vehicles against head and facial injury without increasing the risk of neck or cervical spine injury [7]. A study among traffic accident victims in New Delhi by Banerjee et al. revealed that 31% were the victims of head injury and the study also suggests the need for wearing a helmet as a preventive strategy for head injury [8].

An important means of increasing the wearing of helmets in low- and middle-income countries is legislation; where helmet-wearing rates are low and a large number of people use motorized two-wheelers [9]. There is considerable evidence to show that helmet use effectively reduces

motorcycle-related head injuries. Helmet use lessens serious injuries, lowers mortality rates and reduces the need for hospital resources [10].

In Tanzania, deaths due to motorcycle crash makes 26% among all road users and Dar es Salaam being the mostly affected region where 54% of all motorcycle accidents in Tanzania being reported (Traffic Police Report HQ, 2014) [11].

The most specific and most effective way of reducing head injuries and fatalities resulting from motorcycle and bicycle crashes is the use of helmets. In most low and middle income countries, especially in Asia, a motorcycle is the common vehicle for the family [12].

Helmet use among the motorcycle road users is low. Young motorcycle users in particular are generally less likely to wear a helmet than those who are older [13].

A study in a Brazilian city, for instance, found that those younger than 18 years were less likely than others to wear a helmet, particularly if they had been consuming alcohol [14].

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 [15],[16].

Helmet as a protective measure has been identified to be effective towards head injury prevention [17] and reduces the fatality of motorcycle riders [18]. The fatality risk is reduced by 34% [19]. 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. It has been shown that motorcyclists are likely to put on helmets when they are driving on the highways [20], [21], [22] travelling on a long trip [23] and if they anticipate meeting a traffic police [24],[25]during the day rather than night hours and during weekdays rather than weekends [26]. Arguments against helmets for motorcycle riders include the possibility that they are uncomfortable by increasing the risk of neck injuries in crashes [27] and could decrease rider visibility. Negative attitudes towards helmet use [28] among other factors; explain the reason behind the reported low rate of use [29 [30]. Some reasons for non-adherence and non-use of helmet include feelings of discomfort due to heat during the hot weather, and lateral vision and hearing ability impairment [31]. However, it has been shown that helmets do not impair hearing ability and the lateral vision can be complemented by lateral head rotation [32].

In its 2006 publication, the World Health Organization recommended exploring local attitudes and beliefs about helmet use as a primary step in designing effective programs for increased helmet use among riders.

This study was set out to help in understanding various knowledge, attitudes and practices that motorcyclists have in Kinondoni, Dar es Salaam on the use of safety helmets in order to ensure appropriate behavioral change and curb the increasing number of fatalities due to motorcycle crashes.

## **1:2. Problem Statement**

Globally, road traffic injuries (RTIs) are responsible for a significant proportion of overall injury morbidity and mortality; 90% of mortalities are seen in low and middle-income countries [33]. The risk of injuries and death is higher for non-users of helmet, this is because motorcycle helmet decrease head injuries and death by 70% and 40% respectively [34].

Prevalence of deaths and injuries due to motorcycle accidents in Tanzania is a significant public health issue. In Tanzania, death due to motorcycle crash makes 26% among all road users and Dar es Salaam being the mostly affected region where 54% of all motorcycle accidents in Tanzania being reported [11]. Since injuries to the head and neck are the main causes of death and disability, non-users of helmet are at higher risk of getting severe injury, death and disability. Therefore, non-compliance of helmet use poses a greater risk of death and serious head and brain injuries.

Despite their effectiveness, helmets are not as widely used as they should be and when used, they are not used properly [10]. Non-consistent use of helmet has been evident in several studies. It has been shown that motorcyclists are likely to put on helmets when they are driving on the highways [20],[21],[22], travelling on a long trip [23] and if they anticipate meeting a traffic police [20] during the day rather than night hours and during weekdays rather than weekends [4]. This suggests different level of knowledge, attitudes and practices towards compliance of helmet use among motor cycle drivers.

This study therefore, focused on assessing the level of knowledge, attitudes and practices towards compliance of helmet use among motorcycle drivers at Kinondoni-Dar es Salaam, in order to generate information that will be used by different stakeholders when designing interventions focusing on minimizing deaths and injuries related to non-compliance of helmet use among motorcycle drivers.

### **1:3. Rationale of the study**

This study was designed to fill the gap on the knowledge, attitude and practices towards compliance of helmet use among motorcycle drivers. The assessed knowledge, attitude and practices towards compliance of helmet use among motorcycle drivers will be helpful in designing future intervention by the government and other key stakeholders such as policy makers and law enforcement agencies to enforce laws and policies focusing on reduction and prevention of deaths and injuries due non-compliance of helmet use. The intervention will focus on the community awareness and education through different media in those weakness points identified in the knowledge, attitudes and practices on the compliance of helmet use with the long term of reducing head injuries, hospital stays, and death associated with non use of helmet during driving.

## **1.4. RESEARCH QUESTIONS**

### **1:4:1. Main Research Question**

1. What are the knowledge, attitude and practices on the use of helmet among motorcycle drivers **in Dar es Salaam**?

### **1:4:2. Sub Research Questions**

1. What is the association between knowledge and use of helmet among motorcycle drivers in Kinondoni, Dar es Salaam?
2. What is the association between practices and use of helmet among motorcycle drivers in Dar es Salaam?
3. What are the practices that constitute compliance of helmet use among motorcycle drivers in Dar es Salaam?

## **1:5. OBJECTIVES**

### **1:5:1. Broad Objective**

To determine knowledge, attitude and practices on the use of helmet use among motorcycle drivers in Dar es Salaam.

### **1:5:2. Specific Objectives**

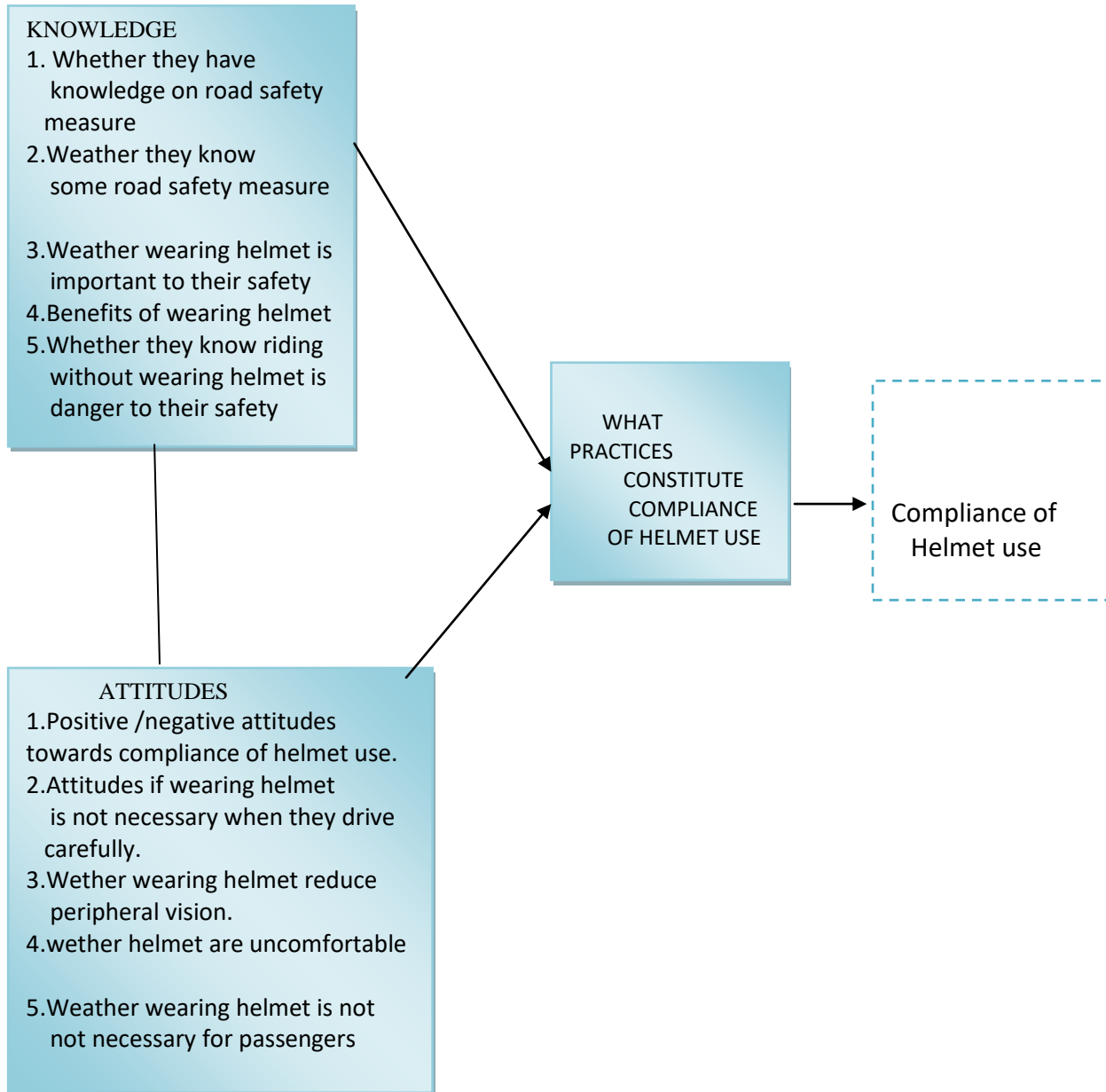
1. To determine association between knowledge and use of helmet among motorcycle drivers in Dar es Salaam.
2. To determine association between attitudes and use of helmet among motorcycle drivers in Dar es Salaam
3. To determine practices that constitutes compliance of helmet use among motorcycle drivers in Dar es Salaam.



## 1:6. CONCEPTUAL FRAMEWORK

### INDEPENDENT VARIABLES

### DEPENDENT VARIABLES



## **CONCEPTUAL FRAMEWORK**

The conceptual framework above explains the main **variables examined** under the study and the presumed relationship among them (Miles and Huberman, 1994, P18).

This conceptual framework above, explains how the occurrence of the outcome variable (Dependent variable) is explained by more different independent variables. In this case the independent variables are knowledge, attitude and practices that if consistently adhered and done leads to compliance of helmet use and the dependent variable is compliance of helmet use among motorcycle drivers. From the conceptual framework above it is presumed, that compliance of helmet use among motorcycle drivers is greatly influenced by the knowledge, attitudes and practices that if done consistently, constitute compliance of helmet use among motorcycle drivers.

## **CHAPTER TWO**

### **2:1. Literature Review**

Road traffic injuries and fatalities have emerged as a major public health concern, with RTIs **becoming** one of the leading causes of deaths, disabilities and hospitalizations which impose severe socio-economic costs across the world. World Health Statistics 2008 cited in Global Status Report on Road Safety states that RTIs in 2004 were the 9<sup>th</sup> leading cause of death and at current rates by 2030 are expected to be the 5<sup>th</sup> leading cause of death, overtaking diabetes and HIV/AIDS [35].

Motorcycle crash victims form a high proportion of those killed or injured in road traffic crashes. Injuries to the maxillofacial region, following motorcycle crashes, are a common cause of severe morbidity and mortality. World-wide, road traffic injuries have been reported to be the leading causes of death among young people aged 15-29 years [35]. In India, 53.1% of road accident victims were in the age group of 25 to 65 years in 2010, with pedestrians, bicyclists and two-wheelers, who comprise the most unprotected road users, accounting for around 40% of all fatalities. Road traffic accidents present an economic burden on the countries amounting to 1-3% of the gross domestic product [35]. According to the WHO, India loses \$20 billion on road accidents [36].

Study shows that, that motorcycle helmets were found to reduce the risk of death and head injury in motorcyclists who crashed [37].

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 [38]. Helmet as a protective measure has been identified to be effective towards head injury prevention [39]and reduces the fatality of motorcycle riders [40]. 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. It has been shown that motorcyclists are likely to put on helmets when they are driving on the highways [23] travelling on a long trip and if they anticipate meeting a traffic police [21]during the day rather than night hours and during weekdays rather than weekends [27].

Arguments against helmets for motorcycle riders include the possibility of increasing the risk of neck injuries in crashes and could decrease rider visibility [40].

Negative attitudes towards helmet use among other factors; explain the reason behind the reported low rate of use. Some reasons for non-adherence and non-use of helmet include feelings of discomfort due to heat during the hot weather, and lateral vision and hearing ability impairment [27]. However, it has been shown that helmets do not impair hearing ability and the lateral vision can be complemented by lateral head rotation [27].

Motorcycle can be extremely convenient when travelling a short distance with one or two people. Thanks to their light-weight mechanism and affordable price, motorcycles have always been the preferred choice for many. In addition, if there is not much luggage or one is only travelling within the vicinities of a city, especially at peak hours, then two-wheelers tend to be the preferred mode of transport over vehicles. However, the alarming increase in the number of motorcycle related accidents and deaths have caused a serious concern in Tanzania which accounts for 54% of all traffic accidents [11].

The risk of being killed in a traffic crash in Tanzania proportionate to the number of vehicles on the road is 20-30 times higher than in the USA and many countries in Western Europe [42], hence the WHO's Global Road Traffic Safety Report recommended a major focus on research and interventions in developing nations given over 90% of the world's fatalities on the roads occur in low-income and middle-income countries [43].

Recently the prevalence of road traffic accidents in Tanzania had increased whereby motorcycle accidents form a large proportion and a fatal category of motor traffic accidents (Morbidity & mortality (16.7%) [32]. Non-use of helmet is a specific factor leading to head injuries and fatalities resulting from motorcycle crashes. In a study conducted by interviewing motorcycle riders at their parking points in Dar es Salaam 2011 revealed that (52.7%) were observed wearing helmet, although 91.8% of them had no passenger's helmet [44]. In northern region, Mwanza Motorcyclists accounted for the majority of motorcycle injury patients and Helmet use was found to be (22.7%) among the patient admitted with motorcycle injury [45]. Non-adherence of helmet use includes feelings of discomfort due to heat during the hot weather, and lateral vision and hearing ability impairment alcohol use and the altitude to the law implementation. This study therefore aimed at assessing knowledge, attitudes and practices

that motorcycle riders have towards compliance of helmet use in Kinondoni, District in Dar es Salaam.

## **CHAPTER THREE;**

### **METHODOLOGY**

#### **3:1. Study Design**

This study used cross sectional design employing quantitative research method to assess the knowledge, attitude and practices towards compliance of helmet use among motorcycle drivers at Kinondoni district in Dar es Salaam region.

#### **3:2. Study Area**

This study was conducted at Kinondoni District in Dar es Salaam. Kinondoni district was selected because data from Traffic police showed that Kinondoni is leading on the motor cycle accident compared to other districts.

#### **3:3. Study Population**

This study involved population of motorcycle drivers aged 18 years and above in Dar es Salaam and the target population was motorcycle drivers **at Kinondoni district.**

#### **3:4. Inclusion and Exclusion Criteria**

##### **Inclusion Criteria**

- Motorcycle drivers at Kinondoni district were included in this study.

##### **Exclusion Criteria**

- All motorcycle drivers below 18 years old
- All motorcycle drivers with hearing disability
- Those with talking disability
- Those who cannot read and write

#### **3:5. Study Sample Size Determination.**

A sample size was determined using population prevalence of 50% (when the previous prevalence is not known). Standard normal deviate of  $\alpha=0.05$  (95 % of confidence interval, 5 % marginal of error).

Therefore, minimum sample size was calculated as follows;

For a large population:

$$n = \frac{z^2 p (1-p)}{\varepsilon^2} \quad \text{or} \quad n = \frac{z^2 p (100-p)}{\varepsilon^2}$$

Where

$z$  = standard normal deviate=1.96 for 95% confidence level

$p$  = expected proportion with characteristic of interest

$\varepsilon$  = margin of error (precision)

Therefore, minimum sample size was

Given that

$z=1.96$

$p=0.50$

$\varepsilon=5\%$

$$\text{Therefore } n = \frac{1.96^2 50(100-50)}{5^2} \approx 384$$

Therefore, minimum sample size required for this study was  $\approx 384$

### 3:6. Sampling Procedure

Participants were conveniently selected to participate in the study provided they had met the inclusion criteria under the study until the required minimum sample was **obtained**. This sampling process was used because my respondents being scattered and short time of data collection I had, because conveniently sampling is better to be facilitated in short duration of time in data collection. The respondents were selected from their station when were waiting for the passengers. The participants were detailed about the study, for those who agreed to participate were given informed consent and questionnaires to fill.

### 3:7. Data Collection method

Data was collected using structured questionnaire that was administered to the motorcyclists with the help of research assistants. The questionnaire was designed in manner that understandable to the study participants (motorcycle drivers). The validity and reliability was assured by pretesting of the questionnaire to five participants at Kimara stop over to see

whether the questionnaires reflected the study objective, relevant of the questions and understood by the respondents.

### **3:8. Data Management and Analysis**

Data was entered and analyzed using **SPSS version 24** computer software package.

For the purpose of this study, descriptive statistics of frequency and cross-tabulation was run to determine percentage and chi square to determine the association between level of knowledge; attitude and **practice towards** compliance of helmet use among motorcycle drives in Kinondoni, Dar es Salaam.

#### **3.9.1. Ethical Consideration**

Study procedures followed approval ethics guidelines for biomedical research involving human subjects in compliance with the Helsinki Declaration. Ethical approval for the study was granted from Institution Review Board under directorate of Research and Publication of Muhimbili University of Health and Allied Sciences. Privacy and confidentiality was highly maintained by avoiding unauthorized persons from accessing study information. Anonymity was maintained by using participants ID numbers. No name was recorded in the questionnaire and the details of the study were clearly explained to the participants prior the interview.



## CHAPTER FOUR: RESULTS

The socio-demographic characteristics of the respondents are presented in Table 1. All respondent were from Kinondoni. The mean age of the respondents was  $26.9 \pm 5.2$  years. The total respondents were 384. Of 384 respondents all consented to participate in the study and none of them were excluded to participate in the study. 97.7% were male and only 2.3% were female. 63.8% were born in rural area while 36.2% less in urban. 43.8% of the motorcycle drivers were in the age of 26-30 years old. 46.1% of the respondents were married compared to 45.8% less of single. 46.6% of the respondents had primary level education compared to 42.2% less of secondary.

Table 1: Demographic Characteristics of the respondents

<b>Variable</b>	<b>N (%)</b>
<b>Age</b>	
18-25	121(31.5)
26-35	168(43.8)
36-59	91(23.7)
>=60	4(1)
<b>Sex</b>	
Male	375(97.7)
Female	9(2.3)
<b>Place of Birth</b>	
Rural	245(63.8 )
Urban	139(36.2)
<b>Marital Status</b>	
Married	177(46.1)
Single	176(45.8)
Separated	25(6.5)
Divorced	6(1.6 )
<b>Education Status</b>	
<b>Non educated</b>	17(4.4)
Primary	179(46.6)
Secondary	162(42.2 )
College and above	26(6.8)

## **Association between knowledge and helmet use status**

From table 2 below indicates significant association between awareness of road safety measure and wearing of helmet among motorcycle drivers ( $p < 0.005$ ). 40.2% of the respondents mentioned wearing helmet during riding as the most safety measure they know mostly, and at the same time reported to comply with helmet use. The P-value was 0.000 indicating significant association between safety measures mentioned and compliance of helmet use.

More than three quarter of the respondents 92.4% complied with helmet use and agreed that, helmet minimizes injuries and deaths during accident. The P-value was 0.000 indicating statistical association between knowing the benefit of helmets among motorcycle drivers and helmet use. More than three quarter of the respondents 71.8% disagreed that, wearing helmet obstruct the rider view and reported to comply with helmet use. The calculated p value was 0.0820 indicating insignificant association between obstruction of the vision and helmet use.

More than three quarter of the respondents 73.7% were against the statement that, helmet generates a lot of heat and at the same time complied with helmet use. **The p- value** was 0.000 indicating significant association between those who were against the perception that, helmet generates heat and comply with helmet use. More than three quarter of the respondents 83.6% who mentioned that, helmet minimize severity of injury in crash as one of the benefit of wearing helmet complied with helmet use. The p-value was 0.002 indicating significant association between knowing the benefit of wearing helmet and helmet use. More than three quarter of the respondents 87% who reported that, severity of injury in road traffic accident increase for non-user of helmet complied with helmet use. The P-value was 0.000, indicating significant association between knowing severity of injury in road traffic accident increases for non-user of helmet and compliance of helmet use.

In general all variable used to measure association between knowledge and compliance of helmet use showed a p-value of less than 0.05, indicating significant associations between knowledge and compliance of helmet use among motorcycle drivers, in Kinondoni Dar es Salaam.

**Table2. Association between knowledge and compliance of helmet use status**

Variable	Helmet use status		p-value
	Yes	No	
1. know about road traffic safety measure 1. Yes 2. No	327(92.4)	25(83.4)	0.045
	27(7.6)	5(16.7)	
2. Safety measure you know the most 1.Reduce speeding 2.Not driving after drinking alcohol 3.Wearing helmet during riding 4. Not using mobile phone while driving	80(22.7)	8(26.7)	0.000
	36(10.2)	11(36.7)	
	142(40.2)	9(30)	
	95(26.9)	2(6.7)	
3. Helmet minimize injuries and deaths related to non-compliance of helmet use	327(92.4)	15(50)	0.000
	27(7.6)	25(50)	
4. Wearing helmet obstruct the rider view	100(28.2)	13(43.3)	0.082
	254(71.8)	17(56.7)	
5. Helmet generate a lot of heat	93(26.3)	18(60.0)	0.000
	261(73.7)	12(40.0)	
6. Benefit of wearing helmet 1.It is unnecessary for short trips 2.Gives comfort while driving. 3. Minimize the severity of injury in crash	28(7.9)	4(13.3)	0.002
	30(8.5)	18(26.7)	
	296(83.6)	18(60.0)	
7. Severity of injury in road traffic accident increase for non user of helmet	308(87.0)	16(53.3)	0.000
	46(13.0)	14(46.7)	

## **Association between attitudes and helmet use status**

Table 3 shows the association between attitudes and compliance of helmet use among motorcycle drivers at Kinondoni district in Dar es Salaam. Almost, 81.3% of the respondents reported to comply with helmet use and agreed that, not wearing helmet can lead to deaths among motorcycle drivers. More than half of the respondents 78% reported to comply with helmet use and agreed that, helmet prevent severity of injury and death among drivers. Almost three quarters 81.3% of the respondents complied with helmet use and disagreed that, helmet is not really important when carefully driving. 87.8% of the respondents reported to comply with helmet use and disagreed that, wearing helmet is not important when there is no police traffic around.

More than a half of the respondents 51.4% reported to comply with helmet use and disagreed that, wearing helmet is not important when there is no police traffic around. Eight three point three percent (83.3%) of the respondents reported to comply with helmet use and disagreed that, helmet use is not necessary for passengers. Eight two point five percent (82.5%) of the respondents reported to comply with helmet use and strongly agreed that, helmet use is good for driver's safety. Almost a half of the respondents 79.9% reported to comply with helmet use and disagreed that, wearing helmet is not good during hot weather. A half of the respondents 84.2% reported to comply with helmet use and disagreed that wearing helmet reduce peripheral vision. 92.4% of the respondents reported to comply with helmet use and strongly agreed that, helmets are not comfortable. Ninety point two percent (90.2%) of the respondents complied with helmet use and disagreed that, helmet use is not necessary for small children. Ninety-point two percent 90.2% complied with helmet use and disagreed that experienced drivers should not wear helmet. Eighty nine point five percent (89.5%) of the respondents reported to comply with helmet use and also reported to disagree that, wearing helmet is only important to avoid police traffic fines. More than a half of the respondents 94.1% reported to comply with helmet use and disagreed that, wearing helmet is not important for short trips. More than a half of the respondents 92.4% reported to use helmet and also disagreed that, wearing helmet is important only in city than the outskirts.

The general conclusion from attitudes towards compliance of helmet use is that, the calculated p-value for all variables for attitudes was less than 0.05, indicating higher and significant

association between attitudes and compliance of helmet use among motorcycle drivers in Kinondoni Dar es Salaam.

Table 3. Association between attitudes and helmet use status

Variable	Helmet use status		p-value
	Yes n(%)	No n (%)	
<b>Drivers may die because of not wearing helmet in traffic accident</b>			0.000
Agree	323(81.3)	24(80)	
Disagree	31(8.8)	6(20)	
<b>Wearing protective helmet helps to prevent severity of injury and death due to road traffic accident</b>			0.000
Agree	276(78)	17(56.7)	
Disagree	78(22)	13(43.3)	
<b>Helmet not really important when carefully Driving</b>			0.000
Agree	66(18.6)	16(53.3)	
Disagree	288(81.3)	14(46.7)	
<b>Wearing helmet is not important when there is no police traffic around</b>			0.000
Agree	43(12.2)	20(66.7)	
Disagree	311(87.8)	10(33.3)	
<b>Helmet use is not necessary for passengers</b>			0.000
Agree	59(16.7)	15(50)	
Disagree	295(83.3)	15(50.0)	
<b>Helmet use is good for drivers safety</b>			0.000
Agree	292(82.5)	11(36.6)	
Disagree	62(17.5)	19(63.4)	
<b>Wearing helmet is not good during hot weather</b>			0.001
Agree	71(20.1)	15(50.0)	
Disagree	283(79.9)	15(50)	
<b>Wearing helmet reduces your peripheral vision</b>			

Agree	56(15.8)	16(53.4)	0.000
Disagree	298(84.2)	14(46.6)	
<b>Helmets are uncomfortable</b>			0.000
Agree	327(92.4)	30(100)	
Disagree	27(7.6)	0(0.0)	
<b>Do you think helmet use is not necessary for small children</b>			0.000
Agree	75(21.1)	16(53.3)	
Disagree	279(78.9)	14(46.7)	
<b>Experienced drivers should not wear helmet</b>			0.000
Agree	35(9.8)	9(30)	
Disagree	319(90.2)	21(70.0)	
<b>Wearing helmet is only important to avoid police traffic fines</b>			0.000
Agree	37(10.4)	13(43.3)	
Disagree	217(89.5)	17(56.7)	
<b>Wearing helmet is not important for short trips?</b>			0.000
Agree	21(5.9)	7(23.4)	
Disagree	333(94.1)	23(76.6)	
<b>Wearing helmet is only important in city than the outskirts</b>			0.000
Agree	27(7.7)	16(53.3)	
Disagree	311(92.4)	30(46.7)	

Table 4 below shows that more than three quarters of the respondents 92.1% reported to say they always wear helmet; also, the same number reported to comply with helmet use. The calculated p-value was 0.000 indicating significant association between using helmet and frequency of wearing it. Ninety three point five percent of the respondents (93.5%) reported to comply with helmet use and also had driving license. The **P-value** was 0.000, indicating significant association between having driving license and helmet use. Thirty nine point five percents (39.5%) of the respondents reported to have 3-5 years of driving experience and reported to comply with helmet use. The calculated p-value was 0.569 which is greater than p-value of 0.05, indicating insignificant association between driving experience and compliance of helmet use.

Table 4: Association between practices and helmet use status

Variable	Helmet use status		p-value
	Yes n(%)	No n(%)	
<b>Frequency of wearing helmet</b>			0.000
Always	326(92.1)	13(43.3)	
Occasional	15(4.2)	8(26.7)	
Some times	13(3.7)	9(30.0)	
<b>Do you have a driving license</b>			0.000
Yes	331(93.5)	21(70.0)	0.569
No	23(6.5)	9(30.0)	
<b>How many years of driving experience do you have</b>			
1-2 years	48(13.6)	5(16.7)	
3-5 years	140(39.5)	8(26.7)	
6-10 years	103(29.1)	10(33.3)	0.000
.>=10 years	63(17.8)	7(23.3)	
<b>Do you have a helmet</b>			0.000
Yes	343(96.9)	21(70.0)	
No	11(3.1)	9(30.0)	

## **CHAPTER FIVE**

### **DISCUSSION**

It is universally accepted that motorcycle crashes cannot be totally prevented, but that the resultant injuries and severity can be prevented or minimized by protective devices like the safety helmets properly used for motorcyclists [20]. This study found that, almost all motorcycle drivers at Kinondoni were males and most of them were aged between 18-35 years, the male response found in this study is consistent with findings in other studies done [47]. This may be due to the fact that it is a common observed phenomenon and customary to see more males than females motorcycling in African cultural context. Furthermore, since motorcycling is a high-risk venture, males tend to engage more in risky ventures than what their female's counterparts do. The age group 18-35 years also constitutes important components of the working group as they fall within the productive age group.

Majority of the motorcycle drivers in this study have primary education. This is contrary to the findings by Ogining et al [47] which reported more secondary respondents. The differences in this finding could be due to the fact that, in my study more primary school leavers start motorcycle business after failing to join secondary schools.

This study found higher significant proportions of motorcycle helmet use of 92.2% among motorcyclists. This study showed higher proportions of helmet use as compared to the rate obtained in a study conducted in Dar es Salaam, where the motorcycle helmet use proportion was 82.1% and 52.7% [48] [45]. The higher proportions of helmet use in this study could be due to increased knowledge and awareness of the road traffic measures and strictly police fines imposed to those who violate road traffic rules and regulations.

More than half of the participants 94.1% disagreed that helmets are not important for short trips. This finding is similar to the study done in Vietnam whereby having a positive attitude towards wearing helmet when travelling for a short trip was associated with increased helmet use [23].

Despite high awareness of the benefits of helmet use among motorcyclists, 92.4% of the respondents strongly agreed that, helmet is uncomfortable. This finding is similar with study done in China which found that despite the majority of motorcyclists acknowledged the benefits of helmet use [34], more than three quarters of the respondents 85.3 strongly agreed that, that helmets are not comfortable. Also, another study reported motorcyclists were not wearing helmets due to the reason that, helmets are not comfortable [49].



Furthermore, the mentioned reason that helmet is not comfortable also corresponds to the study done in Iran whereby one of the reasons given for poor compliance to helmet wearing was that helmets were designed to be used in temperate countries and were uncomfortable to use in hot weathers [42]. Ninety-two-point four percent (**92.4%**) of the respondents agreed that wearing helmet protects against head injury in case of accident. This finding is somewhat similar to a previous study that found that majority of participants acknowledged the benefits of helmet [50].

### **The limitation of the study**

Some of the respondents were trying to recall the answer to fill in the questionnaire. This might have lead to recall bias. The other challenges faced were money demanding from some of the motorcycle drivers after the interview. Some of the respondents requested money in order to fill the questionnaires. Recall bias and money demanding might lead to under or exaggeration of the level of knowledge, attitudes and practices towards compliance of helmet use.

### **Conclusion and Recommendation**

Most motorcyclists have good knowledge and attitude on helmet use, and have positive attitude towards protective ability of helmet. Most participants agreed that helmet use protect injuries and they had helmets, although some of them reported that helmet use cause some discomforts. Continued education is needed to motorcycle drivers and to the general population on the importance of using helmet when using motorcycles for the protection of severe head injuries. Further study is recommended to identify the other measures that can be put into place in ensuring appropriate behavioral change on helmet use.

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## APPENDICES

### Appendix 1: Questionnaire

1. **Questionnaire** ID Number

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2. **Broad objective of the Study**

The broad objective of this study is to assess knowledge, attitude and practices towards compliance of helmet use among motorcycle drivers in Kinondoni, Dar es Salaam

These questions are designed to determine knowledge, attitude and practice of motorcycle drivers towards helmet use and associated socio-demographic characteristics

3. **Introduction:**

I am a Postgraduate student from Muhimbili University of Health and Allied Sciences. Currently I'm doing my research about knowledge, altitude and practices towards compliance of helmet use among motorcycle drivers in Kinondoni, Dar es Salaam. As it is well known that, non compliance of helmet use among motorcycle drivers increases death and injuries among motorcycle drivers of which could be prevented if they all complied with the use of helmet.

#### **Part one: socio-demographic characteristics**

1. What is your age?

1.18-25

2.26-35

3.36-59

4. >=60 (.....)

2. What is your sex ?

1.Male

2.Female (.....)

Place where you were born

1.Rural

2.Urban

3. Place of work:

1=Kinondoni,

2=Temeke,

3=Ilala (.....)

4. Education Status:

0=None

1= Primary

2= Secondary

3= College and above (.....)

5. Marital status

1=Married

2=Single

3=Separated,

4=Divorced (.....)

**Part two; Knowledge on helmet use**

6. Do you know about road traffic safety measure)?

1.Yes

2.No (.....)

7. Do you know that, wearing helmet is important in minimizing injuries and deaths when accidents occur ?

1.Yes

2.No (.....)

8. Do you think that, wearing helmet obstruct the rider view?

1.Yes

2.No (.....)

9. There is a hear say that, helmet generate a lot of heat? is true?.

1.Yes

2.No (.....)

10. What is the benefit of wearing helmet ?

1. It is unnecessary for short trips
2. Gives comfort while driving.
3. Minimize the severity of injury in crash.(.....)

11. Is there un comfort ability in wearing helmet during driving

- 1.Yes
- 2.No (.....)

12. Is it true that, driving without wearing helmet increase the severity of injury in road traffic accident?

- 1.yes
- 2.No (.....)

**Part three: Question on attitude towards compliance of helmet use**

13. Any drivers including you may die because of not wearing helmet in traffic accident?

- 1.Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree(.....)

14. Wearing protective helmet helps to prevent severity of injury and death due to road traffic accident?

1. Strongly agree
2. Agree
3. Neither agrees nor disagree
4. Disagree
5. Strongly disagree (.....)

15. Do you think that drivers wearing protective helmet are less likely to be injured than those not wearing protective helmet in road traffic accidents?

- 1.Yes
- 2.No (.....)



16. If you drive carefully, do you think helmet is not really important?

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree (.....)

17. Is wearing helmet not important when there is no police traffic around?

1. Strongly agree
2. Agree
3. Neither agrees nor disagree
4. Disagree
5. Strongly disagree (.....)

18. Is helmet use not necessary for passengers?

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree (.....)

19. Is helmet use good for drivers safety?

1. Strongly agree
2. Agree
3. Neither agrees nor disagree
4. Disagree
5. Strongly disagree (.....)

20. Is wearing helmet not good during hot weather?

1. Strongly agree
2. Agree
3. Neither agree nor disagree

- 4. Disagree
- 5. Strongly disagree (.....)

21. Is wearing helmet reduces your peripheral vision?

- 1. Strongly agree
- 2. Agree
- 3. Neither agree nor disagree
- 4. Disagree
- 5. Strongly disagree (.....)

22. Everyone should wear helmet during riding?

- 1. Strongly agree
- 2. Agree
- 3. Neither agree nor disagree
- 4. Disagree
- 5. Strongly disagree (.....)

23. Helmets are uncomfortable?

- 1. Strongly agree
- 2. Agree
- 3. Neither agree nor disagree
- 4. Disagree
- 5. Strongly disagree (.....)

24. Do you think helmet use is not necessary for small children?

- 1. Strongly agree
- 2. Agree
- 3. Neither agree nor disagree
- 4. Disagree
- 5. Strongly disagree (.....)

25. Do you think that, experienced drivers should not wear helmet?

- 1. Strongly agree
- 2. Agree

3. Neither agree nor disagree
  4. Disagree
  5. Strongly disagree (.....)
26. Do you think that, wearing helmet is only important to avoid police traffic fines?
1. Strongly agree
  2. Agree
  3. Neither agree nor disagree
  4. Disagree
  5. Strongly disagree (.....)
27. Do you think that, Wearing helmet is not important for short trips?
1. Strongly agree
  2. Agree
  3. Neither agree nor disagree
  4. Disagree
  5. Strongly disagree (.....)
28. Is wearing helmet important only when you are riding in city than the outskirts?
1. Strongly agree
  2. Agree
  3. Neither agree nor disagree
  4. Disagree
  5. Strongly disagree (.....)

**Part four; Questions on Practice of wearing helmet**

29. Do you have a helmet?
1. Yes
  2. No (.....)
30. Do you wear helmet?
1. Yes
  2. No (.....)
31. If yes for question number 31. How often do you wear helmet?
1. Always

2.Occasional

3.Some times (.....)

32. If no for question number 31, what are the reasons for not wearing helmet?

1.It is painful when wearing helmet

2.I feel discomfort when wearing it

3. Unnecessary for the short trip

4.Others do not wear it (.....)

33. Do you have a driving license?

1.Yes

2.No (.....)

34. How many years of driving experience do you have?

1.1-2 years

2.3-5 years

3.6-10 years

4.>=10 years (.....)

Thanks for your cooperation in answering my questions. I wish you all the best in your endeavor towards building our nations and may almighty God bless and protect you

## Questionnaire Swahili Version

### Sehemu ya kwanza (Utambulisho)

1. Dodoso kumbukumbu 

--	--	--

 namba

2. Lengo la Utafiti huu

Lengo kubwa la utafiti huu kufanya tathmini ya elimu, mtazamo na mwenendo juu ya matumizi kofia za kuendeshea pikipiki miongoni mwa madereva wa pikipiki wilaya ya Kinondoni, mkoa wa Dar es Salaam

kufahamu elimu, mtazamo juu ya matumizi kofia za kuendeshea pikipiki miongoni mwa madereva wa pikipiki wilaya ya Kinondoni, mkoa wa Dar es Salaam

1. Utambulisho

*Mimi ni mwanfunzi katika Chuo Kikuu cha Afya cha Muhimbili, nipo katika mafunzo ambapo kwa sasa nafanya utafiti juu ya elimu na mtazamo juu ya matumizi kofia za kuendeshea pikipiki miongoni mwa madereva wa pikipiki wilaya ya Kinondoni, mkoa wa Dar es Salaam. Kutokuvaa kofia kuchangia kuongezeka kwa idadi ya vifo na majeruhi ambavyo vingeweza kuepukika endapo kama waathirika wangevaa kofia za kuendeshea pikipiki (helmet). Ninaomba ushirikiano wako*

### Sehemu ya Kwanza; Maelezo binafsi ya mshiriki

1. Una umri wa miaka mingapi?

1. Kati ya miaka 18-25
2. Kati ya miaka 26-35
3. Kati ya miaka 36-59
4.  $\geq 60$  (.....)

2. Jinsia yako?

1. Kiume
2. Kike (.....)

3. Mahali ulipozaliwa?

1. Kijijini
2. Mjini (.....)

4. Mahali unapofanyia kazi?  
1=Kinondoni,  
2=Temeke,  
3=Ilala
5. Ngazi ya elimu yako?  
0=Sijasoma  
1= Msingi  
2= Sekondari  
3= Chuo na kuendelea (.....)
6. Hali ya ndoa?  
1=Nimeoa  
2=Sijaoa  
3=Tumetengana  
4=Tulitarakiana (.....)

**Sehemu ya pili; Uelewa kuhusu matumizi ya kofia za kuendeshea pikipiki.**

7. Je una uelewa kuhusu sheria mbalimbali za usalama barabarani?  
1.Ndio  
2.Hapana (.....)
8. Je ni kweli kwamba kuvaa helmeti ni muhimu katika kupunguza majeraha **kichwani** na vifo pindi ajari inapotokea?  
1.Ndio  
2.Hapana (.....)
9. Je ni kweli kwamba helmeti inazuia kuona vizuri kwa mtumiaji?  
1.Ndio  
2.Hapana (.....)
10. **Taja faida moja kubwa ya kuvaa helmeti.**  
1. Inaleta raha pindi inapovaliwa.  
2.Kupunguza majeraha ya kichwani wakati wa ajali. (.....)
11. Je ni kweli kwamba kuendesha pikipiki bila kuvaa helmeti kunaongeza uwezekano wa majeraha zaidi na vifo pindi ajari inapotokea?

- 1.Ndio
- 2.Hapana (.....)

12. Kuna habari kwamba helmeti zinasababisha joto kali, je ni kweli?

- 1.Ndio
- 2.Hapana (.....)

**Sehemu ya tatu: Maswali kuhusu mtizamo juu ya matumizi ya helmeti.**

13. Dereva yeyote kama wewe anaweza poteza maisha sababu ya kutokuvaa helmeti pindi ajari inapotokea.

1. Nakubali sana
2. Nakubali
3. Sikubali wala sipingi
4. Sikubali
5. Sikubali kabisa (.....)

14. Kuvaa helmeti kunasaidia kujikinga na majeraha pamoja na vifo pindi ajali inapotokea.

1. Nakubali sana
2. Nakubali
3. Sikubali wala sipingi
4. Sikubali
5. Sikubali kabisa (.....)

15. Madereva wanaovaa helmeti wana hatari ndogo ya kupata majeraha na kifo kuliko wale wasiovaa helmeti

1. Nakubali sana
2. Nakubali
3. Sikubali wala sipingi
4. Sikubali
5. Sikubali kabisa (.....)

16. Ukiendesha kwa umakini,hakuna haja ya kuvaa helmeti.

1. Nakubali sana
2. Nakubali
3. Sikubali wala sipingi

4. Sikubali
  5. Sikubali kabisa (.....)
17. Kuvaa helmeti sio muhimu sana kama hakuna polisi.
1. Nakubali sana
  2. Nakubali
  3. Sikubali wala sipingi
  4. Sikubali
  5. Sikubali kabisa (.....)
18. Je unafkiri hakuna ulazima wa kuvaa helmeti kwa abiria.
1. Nakubali sana
  2. Nakubali
  3. Sikubali wala sipingi
  4. Sikubali
  5. Sikubali kabisa (.....)
19. Helmet ni nzuri kwa usalama wa dereva
1. Nakubali sana
  2. Nakubali
  3. Sikubali wala sipingi
  4. Sikubali
  5. Sikubali kabisa (.....)
20. Kuvaa helmeti sio vizuri wakati wa joto.
1. Nakubali sana
  2. Nakubali
  3. Sikubali wala sipingi
  4. Sikubali
  5. Sikubali kabisa (.....)
21. Kuvaa helmeti kuna sababisha kutokuona vizuri wakati wa kuendesha pikipiki.
1. Nakubali sana
  2. Nakubali
  3. Sikubali wala sipingi
  4. Sikubali
  5. Sikubali kabisa (.....)



22. Kila mmoja anatakiwa kuvaa helmeti wakati akiendesha pikipiki.

1. Nakubali sana
2. Nakubali
3. Sikubali wala sipingi
4. Sikubali
5. Sikubali kabisa (.....)

23. Kuna kujisikia vizuri ukivaa helmeti

1. Ndio
2. Hapana (.....)

24. Hakuna ulazima wa watoto wadogo kuvaa helmeti

1. Nakubali sana
2. Nakubali
3. Sikubali wala sipingi
4. Sikubali
5. Sikubali kabisa (.....)

25. Madereva wazoefu hawana haja ya kuvaa helmet

1. Nakubali sana
2. Nakubali
3. Sikubali wala sipingi
4. Sikubali
5. Sikubali kabisa (.....)

26. Kuvaa helmeti ni muhimu tu kuepukana na faini za polisi

1. Nakubali sana
2. Nakubali
3. Sikubali wala sipingi
4. Sikubali
5. Sikubali kabisa (.....)

27. Kuvaa helmeti ni muhimu tu kwa safari fupi

1. Nakubali sana
2. Nakubali
3. Sikubali wala sipingi
4. Sikubali
5. Sikubali kabisa (.....)

28. Kuvaa helmeti ni muhimu tu pale ambapo unaendesha mjini kuliko mitaani
1. Nakubali sana
  2. Nakubali
  3. Sikubali wala sipingi
  4. Sikubali
  5. Sikubali kabisa (.....)

**Sehemu ya Tano; Maswali kuhusu mwenendo wa matumizi ya helmeti**

29. Je una helmeti?

- 1.Ndio
- 2.Hapana (.....)

30. Je unaivaa pindi unapoendesha pikipiki yako?

- 1.Ndio
- 2.Hapana (.....)

31. Kama swali la 31 ni ndio je unavaa mara ngapi?

- 1.Kila wakati napoendesha pikipiki
- 2.Mara chache
3. Mara moja moja napowaona askari wa barabarani (.....)

32. Kama swali la 31 ni hapana,je kwa nini?

- 1.Helmeti inasababisha maumivu.
- 2.Sijiskii vizuri napovaa helmeti.
- 3.Sio lazima kwa safari fupi.
- 4.Sababu wengine hawavai (.....)

33. Je una leseni ya udereva?

- 1.Ndio
- 2.Hapana (.....)

34. Je unauzoefu wa miaka mingapi kuendesha pikipiki?

- 1.Chini ya mwaka mmoja
- 2.Miaka 2-3
- 3.Miaka 4-5
- 4.Miaka 6-10

5.Zaidi yai miaka 10 (.....)

Asante kwa ushirikiano wako katika kujibu maswali .Nakutakia kila la kheri katika shughli zako za kuingiza kipato na kujenga Taifa.Mungu akubariki na akulinde

**APPENDIX I: Consent Form (English Version)**

**INFORMED CONSENT FORM**

ID-NO

**Consent to Participate in interview**

My name is Dora Shayo. I am a student from Muhimbili University of Health and Allied Sciences Pursuing Master degree of Public Health. I am requesting your permission to collect data that will help me to conduct my study titled: Assessment of knowledge, altitude and practices towards compliance of helmet use among motorcycle drivers in Kinondoni -Dar es salaam

**Purpose of the Study**

This study intends to collect information about the knowledge, altitude and practices towards compliance of helmet use among motorcycle drivers in Kinondoni, Dar es salaam

The information collected will help to conduct research on the assessing level of knowledge, altitude and practices toward compliance of helmet use among motorcycle drivers in Kinondoni which is a partial fulfillment of MSc of Public Health for academic year 2015/2016.

**What Participation Involves**

If you agree to participate in the study, you will be required to answer questions and to provide necessary information regarding knowledge, attitude and practices toward compliance of helmet use among motorcycle drivers in Kinondoni, Dar es Salaam.

**Confidentiality**

The information collected will be strictly be confident and will only be used for research purpose. Privacy and confidentiality will be highly maintained by avoiding unauthorized persons from accessing study information. Anonymity will be maintained by using questionnaire ID. No name and phone number will be recorded in the questionnaire.



**Consent Form (Swahili Version)**

**CHUO CHA SAYANSI ZA TIBA MUHIMBILI**

**KURUGENZI YA UTAFITI NA MACHAPISHO**

**FOMU YA RIDHAAID-NO**

:

**RIDHAA YA USHIRIKI KATIKA UTAFITI**

Habari! Jina langu ni: **Dora Shayo**, ni mwanafunzi wa shahada ya pili ya uzamili katika Chuo Kikuu cha Sayansi za Afya Muhimbili. Ninafanya utafiti kama sehemu ya masomo yangu, kuhusu “Elimu,mtazamo na mwenendo juu ya matumizi ya kofia za kuendeshea pikipiki miongoni mwa madereva wa pikipiki wilaya ya Kinondoni ,mkoa wa Dar es salaam

**Umuhimu wa utafiti huu**

Matokeo ya utafiti huu yatasaidia kuelewa“**kiwango cha** elimu,mtazamo na mwenendo juu ya matumizi ya kofia za kuendeshea pikipiki miongoni mwa madereva wa pikipiki wilaya ya Kinondoni ,mkoa wa Dar es salaam.Matokeo ya utafiti huu yatatumika na madereva wenyewe kuongez uelewa wao juu ya umuhimu wa matumizi ya kofia za kuendeshea pikipiki.Na pia matokeo ya utafiti huu yatatumiwa na wadau mbalimbali wa usalama barabarani pamoja na watunga sera katika kubuni njia mbalimbali za kuzuia vifo na majeraha yanayosababishwa na kutokufuata sheria ya matumizi ya kofia za kuendeshea pikipiki miongoni mw madereva katika wilaya ya kinondoni,mkoa wa Dar es salaam

**Ushiriki unahusisha nini**

Ushiriki unahusisha kukubali kujiunga na utafiti huu kwa hiari na kujibu maswali kama yalivyo katika dodoso la utafiti huu ili kuwezesha utafiti huu kufanyika

**Usiri**

Taarifa zote utakazo jaza katika dodoso ni siri na wala jina pamoja na numbari yako ya simu havitaingizwa katika dodoso isipokua nambari ya dodoso tu.

**Uwezekano wa kutokea jambo la hatari**

Sitarajii kama kuna jambo lolote baya linaweza kutokea kwa kushiriki katika utafiti huu,lakini kama jambo lolote baya litatokea basi huduma za kwanza zitachukuliwa ili kuzuia kutokea kwa jambo hilo.

**Haki ya kujitoa na mambo mbadala**

Ushiriki wako katika utafiti huu ni wa hiari. Hivyo unayo haki ya kujibu au kutojibu swali lolote katika dodoso. Kukataa kujibu swali lolote hakuna adhabu yoyote wala haupotezi haki zako kama mshiriki na katika kupata huduma za kishule kama wanafunzi wengine.

**Faida kwa Mshiriki**

Endapo utakubali kushiriki katika utafiti huu unaweza ukapata faida ya moja kwa moja au isiyo ya moja kwa moja. Faida isiyo ya moja kwa moja, ni kwamba majibu yako yatakuwa mchango mkubwa katika matokeo ya jumla ya utafiti huu kwanza kwa kujua kiwango cha ufahamu ,mtazamo na mwenendo juu ya matumizi ya kofia za kuendeshea pikipiki miongoni mwa madereva wa pikipiki wilaya ya Kinondoni ,mkoa wa Dar es salaam.Matokeo ya utafiti huu yatatumika na madereva wenyewe kuongez uelewa wao juu ya umuhimu wa matumizi ya kofia za kuendeshea pikipiki ili kuweza kujikinga na vifo na majeraha vinavyosababishwa na kutokuvaa kofia wakati wa kuendesha pikipiki.

**Mawasiliano**

Endapo utakuwa na swali lolote kuhusu utafiti huu tafadhali wasiliana na msimamizi wa utafiti huu Dr Iddah Mosha who is the supervisor of this study ( Tel. No. +255 787 122568.....). au mtafiti mkuu **Dora Shayo, Chuo Kikuu Kishiriki cha Sayansi za Afya, P.O.Box 65015, Dar es Salaam.**

Endapo una swali lolote kuhusu haki zako kama mshiriki katika utafiti huu, wasiliana na **Mwenyekiti wa Utafiti na Machapisho, SLB 65001, Dar es Salaam. Simu: 2150302-6.**

**Sahihi.....**

Je unakubali kushiriki? Ninakubali kushiriki  Sikubali kushiriki

Mimi \_\_\_\_\_ nimesoma/nimesomewa na kuyaelewa vyema maelezo yaliyomo katika fomu hii. Maswali yangu yamejibiwa. Ninakubali kushiriki katika utafiti huu.

Sahihi ya Mshiriki \_\_\_\_\_

Sahihi ya Mtafiti \_\_\_\_\_

Tarehe ya kusaini \_\_\_\_\_

**MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES**  
**OFFICE OF THE DIRECTOR OF POSTGRADUATE STUDIES**

P.O. Box 65001  
DAR ES SALAAM  
TANZANIA  
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**KINONDONI MUNICIPAL COUNCIL**

ALL CORRESPONDENCES TO BE ADDRESSED TO THE MUNICIPAL DIRECTOR

Tel: 2170173  
Fax: 2172606

In reply please quote:

Ref. KMC/R.18/1



**MUNICIPAL DIRECTOR**  
**KINONDONI MUNICIPAL**  
**COUNCIL**  
**P. O. BOX 31902**  
**2MOROGORO ROAD**  
**14883 DAR ES SALAAM**

Date 21 /07/2017

**MS. DORA SHAYO**  
Muhimbili University of Health and Allied Sciences  
P. O. Box 65001,  
**DAR ES SALAAM.**

**RE: RESEARCH PERMIT**

Refer to the above heading.

I am pleased to inform you that your above request has been considered by the Municipal Director, and has offered you a place to research from **21<sup>st</sup> July 2017 to 21<sup>st</sup> August 2017.**

Upon receipt of this letter, please report to the **Ward Executive Offers - Mwananyamala and Kinondoni** for commencement of your research.

During the period of field, you are required to obey the rules and regulations of the Institution as they will be defined by the supervision of the research.

Hoping to see you soon.

V. Shangoli

For: **THE MUNICIPAL DIRECTOR**  
**KINONDONI**

For: **MUNICIPAL DIRECTOR**  
**KINONDONI MUNICIPAL COUNCIL**  
**DAR-ES-SALAAM**

**Copy** Director, Post Graduate Studies,  
Muhimbili University of Health and Allied Sciences  
P. O. Box 65001,  
**DAR ES SALAAM.**



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V. Shangoli

For: **THE MUNICIPAL DIRECTOR  
KINONDONI**

- For: MUNICIPAL DIRECTOR  
KINONDONI MUNICIPAL COUNCIL  
DAR-ES-SALAAM

**Copy** Director, Post Graduate Studies,  
Muhimbili University of Health and Allied Sciences  
P. O. Box 65001,  
**DAR ES SALAAM.**