

**KNOWLEDGE AND PRACTICES OF FIRST AID AMONG
COMMERCIAL MOTORCYCLE RIDERS IN IBADAN NORTH-
EAST LOCAL GOVERNMENT AREA, NIGERIA**

BY

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**A DISSERTATION SUBMITTED TO THE DEPARTMENT OF
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DEDICATION

In dedication, my heartfelt gratitude and praises go to the Almighty God for granting me the opportunity and grace to start and end this study, in you alone will I continue to put my trust. And to my family members, most especially my parents for their love, support and endless prayers toward the completion of this programme.

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ABSTRACT

First Aid (FA) is a set of immediate actions taken to prevent further injuries when an accident occurs. Commercial Motorcycle Riders (CMR) in Ibadan are usually prone to accident that may lead to injuries. The application of FA may likely minimise complications associated with such injury. Previous studies have not adequately provided information on knowledge and practices of FA among CMR. This study was designed to investigate knowledge and practices of FA among CMR in Ibadan North-East Local Government Area, Oyo State.

A descriptive cross-sectional study was employed using a two-stage sampling technique, which included proportionate and systematic random sampling to select 385 consenting motorcycle riders for the study. Data were collected using a semi-structured interviewer-administered questionnaire, which included a 24-point knowledge and 15-point perception scales relating to FA. Knowledge scores of <8 , $\geq 8-16$ and >16 were categorised as poor, fair and good, respectively and perception scores of ≤ 8 and >8 were classified as negative and positive, respectively. The questionnaire also contained information on practice, challenges associated with its application, personal experiences of road traffic injuries and willingness to undergo FA training. Data were analysed using descriptive statistics, Chi-square test and logistic regression at $p=0.05$.

Age of respondents was 30.6 ± 11.3 years and all were males. Also, 32.7%, 35.8% and 13.5% had primary, secondary and tertiary education, respectively. Although, 69.1% reported being trained as motorcyclist, however only 0.8% were formally trained. Few (17.4%) had professional motorcycle license and 17.7% reported ever received FA training. Respondents with poor, fair and good knowledge of FA were 79.2%, 18.5% and 2.3%, respectively. Also, 44.2% and 55.8% were negatively and positively disposed to FA, respectively. Majority of CMRs (76.9%) reported that they provided FA services at motorcycle accident scenes, while 89.7% of those that provided FA had previous FA training. Similarly, majority of CMRs (64.4%) were willing to undergo FA training. Also, 66.2% had been involved in road traffic accidents of which 35.4% received FA from fellow CMR. Challenges associated with FA application included fear of the following: legal implications (72.2%), making mistakes (46.5%) and being infected (32.2%). Level of education and previous FA training were significantly related to knowledge and perception of FA. Respondents with primary education were more likely to have poor

knowledge of FA compared with those that had secondary and tertiary education (OR:16.8; CI:2.7-103.7). Also, those who had FA training were less likely to have poor knowledge of FA (OR:0.007; CI:0.001-0.036) compared with those that had no FA training.

Majority of Commercial motorcycle riders had poor knowledge of first aid but were willing to be trained. Fear of legal implication was a major challenge hindering the rendering of first aid services. Public enlightenment and regular training of commercial motorcycle riders are needed to promote involvement in First Aid services.

Keywords: Commercial motorcycle riders, Road traffic accidents, First aid services

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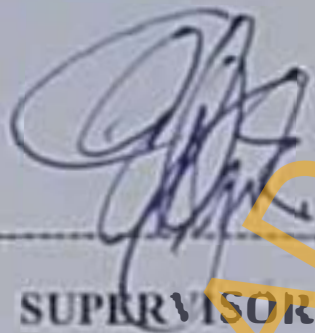
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CERTIFICATION

I certify that this study was carried out by HASSAN Saheed Temitayo in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Nigeria.



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LIST OF ABBREVIATIONS

CMR	Commercial Motorcycle Riders
RTI/A	Road Traffic Injuries/Accidents
WHO	World Health Organisation
NURTW	National Union of Road Transport Workers
LMICs	Low and Middle Income Countries
HIV	Human Immunodeficiency Virus
CDC	Centers for Disease control and Prevention
CPR	Cardio-Pulmonary Resuscitation
FRSC	Federal Road Safety Corps
EMS	Emergency Medical System
IINELGA	Ibadan North East Local Government Area
GNLD	Golden Neo - Life Diamite
NYSC	National Youth Service Corps
ACCOMORAN	Amalgamated Commercial Motorcycle Owners and Rider's Association of Nigeria

OPERATIONAL DEFINITION OF TERMS

- Okada:** Okada is commercial motorcycle which is small in size, easy with a flexible steering and utilises the narrow width of the road and provides access to otherwise inaccessible areas.
- First Aid:** Emergency care or treatment for someone who is sick or injured
- Accident:** An unintended and unforeseen occurrence that leads to injury and trauma
- Motorcyclist:** A person using motorcycle for commercial purposes

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Road traffic injuries are an unintended and unforeseen event, usually resulting in personal injury or property damage and even death bringing agony and discomfort to many families all over the world. Injuries can however happen through various forms but motorcycle accident is now becoming a common incident on our roads. Motorcycle accidents and the attendant unpleasant consequences are on the increase and at such an alarming and disturbing rate (Aderamo & Olatujoye, 2013). In middle and low income countries especially in Africa, motorcycle is a common means of transport (World Health Organisation, 2006). Motorcyclists form a significant proportion of people who are affected by road traffic injuries; for example, 181 lives were claimed in Tanzania due to motorcycle accidents during the first quarter of 2010 (Mkwame, 2010). Akinlode (2000), while looking at the same subject matter from the public health point of view, noted that road traffic injuries have been recognised as a serious health problem in both developed and developing countries. He observed that road traffic accidents have been increasing in developing countries like Nigeria while there is a noted decrease of road accidents in developed countries like Australia

Injury, an increasingly significant public health issue worldwide, accounts for up to 16% of the global burden of disease, with road traffic crashes, in particular, on the rise (Lopez, Mathers, Ezzati, Jamison & Murray, 2006). By 2030, road traffic injuries are predicted to be the eighth-leading cause of death and fourth-leading cause of disability-adjusted life years worldwide (Mathers & Loncar 2002). Currently, more than 90% of road traffic injury deaths occur in developing countries (Hofman, Primack, Keusch & Hrynkow, 2005) where approximately 80% of injury deaths occur in the prehospital setting (Mock, Jurkovich, Amon-Kotei, Arceola-Risa & Maier, 1998). This disproportionate burden is projected to increase as developing countries rapidly urbanise and motorise without associated improvements in injury prevention and control (WHO, 2004; Debas, Gosselin, McConnell & Thind, 2006)

First Aid in road traffic injury (RTI) has attained less attention; however, it has been postulated that a proportion of RTI deaths could be prevented by basic First Aid measures at the scene (Elvik, 2000). It is probable that commercial motorcycle riders present at the scene of RTI can improve outcome by providing measures such as a free airway, stopping external bleeding, and preventing hypothermia. Nonetheless, traffic injuries often are responsible for disabilities that entail lifelong suffering. As such, they place a substantial economic burden on society (Elvik, 2000). Assistance given during the first few minutes after a crash often is of great importance for those who are injured, especially in terms of future health and quality of life. A considerable amount of time may pass before an ambulance arrives and professional help can be provided. Thus, it is imperative that commercial motorcycle riders, who often are laypersons, have both the confidence and the knowledge to correctly administer First Aid to the victims (Hussain & Redmond, 1994). Without prompt life-saving assistance, an injured person may die for a number of reasons, such as airway obstruction or other causes correlated to prehospital death following trauma (Henriksson, Öström & Eriksson, 1998).

First Aid is important because the emergency response time for ambulance/hospital care services, may result in delayed treatment and in many cases simple First Aid interventions applied immediately can save lives. However, little is known about the prevalence of First Aid qualification and/or skill among the driving population, the likelihood that drivers will be involved in situations where First Aid skills may be utilised, or the type of First Aid intervention that has been used. The likelihood that a skilled driver/rider will intervene is also important and a related question concerns the factors that motivate or demotivate drivers/riders in providing First Aid care (Arbon & Inyeh, 2007). However, injury research in low-income countries, particularly intervention-based research, has been grossly neglected in the global public health arena. Several studies have shown a clear relationship between the level of First Aid training and the quality of First Aid measures provided (Mauritz, Pelinka, Koff, Segoll & Fridrich, 2003; Van de Velde, Heselma, Roex, Vandekerckhove, Ramackers & Aertgeerts, 2009; Völker, Stefan, Hauer & Schreiber, 2010). This underlines the importance of First Aid training for the public especially motorcycle riders. Unfortunately First Aid training does not increase the rate of helping. Therefore the motivation to help others is paramount and the helping rate can probably be increased by First Aid courses that include strategies to overcome inhibitors of emergency helping behaviour (Van de Velde, et al. 2009).

The first person to arrive at the scene of a crash initially should protect the affected person from further injury, send for more help, and assure that an ambulance has been summoned. Subsequent measures that are provided are referred to as First Aid, (Nygren, Alberts & Brismar, 1994) which also has been defined as the immediate help given by a person or persons for all types of emergencies while awaiting the arrival of expert medical care. Persons may hesitate to offer First Aid due to insufficient knowledge or the fear of making things worse and believing that an ambulance will arrive soon. (Shibata, Taniguchi, Yoshida & Yamamoto, 2000) or that apprehensions may become manifest that they will be exposed to agents that cause infectious diseases, such as Human Immunodeficiency Virus (HIV) (Ilew, Brenner & Kaufman 1997, McLanson, & O'Gara, 2000). Also, the presence of untrained persons in First Aid treatment may result in no first-aid actions being taken, especially in ambiguous situations.

Nevertheless, persons seldom seem to provide emergency assistance that is completely incorrect and, in fact, in many cases, it seems that it probably would be advantageous if they were to give more help (Mårtensson & Alexanderson, 1998). No data are available regarding the rate of adults in a population who actually have been bystanders at crash sites. Early First Aid may have a secondary, preventive effect: although it does not prevent traffic injuries, in some cases, it may alleviate the consequences of the injuries. First-aid training is offered by schools, the military services, employers, the Red Cross, and other agencies (Collin, 2000). However, no data have been compiled concerning the number of persons who have taken part in such training, nor have there been any evaluations of whether individuals who are trained actually can apply their First Aid skills in a real emergency.

1.2 Statement of the problem

The report on road safety by the World Health Organisation (WHO) reveals that road traffic accidents (RTAs) causes about 50 million injuries with about 1.2 million deaths worldwide (Kopits & Cropper, 2005). Much attention regarding the occurrence of road accidents in Africa and particularly in Nigeria are often focused on the national level, while generalization is often done in order to address the known causes of these accidents on Nigerian roads. There is a major and growing public health concern in preventing serious injuries and deaths from road crashes or accidents. In 2010, it was estimated that

motorcycle accidents claimed 4,502 lives, while motorcycle-related deaths increased by 55% since year 2000 (CDC, 2014).

In most low and middle income countries (LMICs) like Nigeria, transportation of road traffic victims, is usually provided by relatives, drivers of private vehicle, (three wheeled auto rickshaws/keke, taxis and other local vehicles), motorcycles, and other motorists who are usually untrained (Mock, Tiska, Adu-Ampofo & Boakye, 2002; Kobusingye, Hyder, Bishai, Hicks, Mock & Joshipura, 2005). Studies have shown that the inadequacy of public health infrastructure and poor access to health services are important reasons for the high burden of RTIs and/or their severity (Mohan, Tiwari, Melekidzedek & Fredrick, 2006).

Road traffic injuries are currently estimated to be the ninth leading cause of death across all age groups globally, and are predicted to become the seventh leading cause of death by 2030 (World Health Organisation, 2015). Despite a substantial burden of injury in Nigeria, Ibadan, one of its largest city, seem not to have formal First Aid culture and pre-hospital emergency system (Sangowawa, 2007).

1.3 Justification of the study

First Aid treatment is a continuum of activities at the accident site and till the injured person is adequately managed by hospital staff. First care responders, the ones who are first at the crash site, can take necessary steps for safety and smooth management, especially where transportation systems are yet to develop. In middle and upper income countries, integration of prehospital trauma life support and integrated emergency medicine and trauma care systems are responsible for marked reduction of morbidity and mortality following trauma (Mock, Joshipura, Goose, Lormand & Maier, 2005; Mock, Joshipura, Goosen & Maier, 2006; Mock, 2011; Wren, 2011). Unfortunately, these integrated trauma systems are lacking in many LMICs (Mock, 2003; Joshipura, Mock, Goosen & Peden, 2004; Kobusingye, Hyder, Bishai, Hicks, Mock, Joshipura, 2005). A number of publications have advocated lay person assistance at the accident scene (Tiska, Adu-Ampofo, Boakye, Tuuli & Mock, 2004; Mock, Kobusingye, Anhle, Afuknar & Anoola-Riso, 2005; Oluwadlya, Kolawole, Solagberu, Olasinde, Komolafe & Olakutchin, 2005). In Nigeria, frequently the first person on the scene is likely to be another driver or motorcycle rider, and may prove to be the ideal population to be singled out for training.

Immediate First Aid treatment is of paramount importance, which if not available, may lead to the death of the injured victims (Haghparast-Bidgoli, Hasselberg & Khankeh, 2010). The earliest action taken by the first person arriving at the scene of crash is to protect the victim from further injury and request for more help. In addition to some initial efforts such as calling for emergency services, putting out fire, and preventing further accidents, the person can perform First Aid for the victim (Larsson, Martensson & Alexanderson, 2002). One of the most common observations in relation to First Aid treatment is the interaction of untrained lay people and their lack of knowledge and skills in handling the situation in general and the victims in particular.

Adequate treatment by the First Aider is highly relevant and can provide a realistic chance to improve the outcome of the victim. It is crucial that the lay people have the knowledge of providing First Aid for the victim. Thus, training of people on First Aid treatment is very important. But educating all people is not feasible in reality. Proper education on drivers and riders of motorcycles, who are most frequently present in RTAs, is meaningful (Geduld & Wallis, 2011). Therefore, this study was aimed at investigating the knowledge and practices of First Aid on road traffic injuries among commercial motorcycle riders. It also identifies factors that influence application of First Aid among commercial motorcycle riders.

1.4 Research Questions

The following research questions were developed for the study:

1. What is the knowledge of First Aid among commercial motorcycle riders?
2. How do commercial motorcycle riders perceive First Aid treatment in road traffic injury?
3. What are First Aid practices among commercial motorcycle riders?
4. What is the willingness of commercial motorcycle riders in participating in First Aid training?
5. What are the personal experiences of commercial motorcycle riders on road traffic injuries?
6. What are the factors influencing application of First Aid among commercial motorcycle riders?

1.5 Broad Objective

The broad objective of this study was to investigate knowledge and practices of First Aid on road traffic injury among commercial motorcycle riders in Ibadan North-East Local Government Area, Oyo State, Nigeria.

1.6 Specific Objectives

The specific objectives of this study were to:

1. Assess the knowledge of First Aid on road traffic injury among commercial motorcycle riders;
2. Determine the perception of commercial motorcycle riders on First Aid;
3. Report the practice of First Aid treatment among commercial motorcycle riders;
4. Determine the willingness of commercial motorcycle riders to participate in First Aid training;
5. Document personal experiences of commercial motorcycle riders on road traffic injuries;
6. Identify factors influencing application of First Aid among commercial motorcycle riders.

1.7 Research Hypotheses

1. H_0 : There is no significant association between the educational status of commercial motorcycle riders and their knowledge of First Aid;
2. H_0 : There is no significant association between history of First Aid training of commercial motorcycle riders and their knowledge of First Aid;
3. H_0 : There is no significant association between the levels of education of commercial motorcycle riders and their perception of First Aid;
4. H_0 : There is no significant association between respondents' history of First Aid training and their perception of First Aid;
5. H_0 : There is no significant association between the educational status of commercial motorcycle riders and their practice of First Aid on injured victims;
6. H_0 : There is no significant association between history of First Aid training of commercial motorcycle riders and their practice of First Aid on injured victims.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Motorcycle is used in this part of the world for several reasons which include commercial purposes, private and pleasurable means of easy commuting. As a means of transport, motorcycle became very popular in Nigeria from the late 1980s owing to decreasing employment rate and economic downturn. Commercial motorcycle, which is commonly known as 'Okada' in Nigeria, is a major source of income for a sizeable number of unemployed populace. It is also a major cause of injuries following road traffic accidents (Okpoko, 2014). According to Aderamo and Olatijoye (2013), accident is an unintended and unforeseen event, usually resulting in personal injury or property damage and even death bringing agony and discomfort to many families all over the world. Accident can however happen through various forms but motorcycle accident is now becoming a common incident on our roads. Motorcycle accidents and the attendant unpleasant consequences are on the increase and at such an alarming and disturbing rate.

There has been an increase in the use of motorcycles in Nigeria largely on account of its rising popularity as a form of commercial transport (Oluwadiya, Oginon, Olasinde, & Fadiora, 2004). Motorcycles possess the advantage to ply roads that are too narrow or too rough for automobiles and they are also able to manoeuvre in traffic pile-up. While mortality in motorcycle accident is largely due to head injury, limb injury is the leading cause of morbidity (Umebese & Okukpo, 2001). Studies have however shown that certain aspects of motorcycle injuries are peculiar to Nigeria: first, motorcyclists' road behaviours are unruly and unpredictable. Secondly, the uneven road surfaces are crowded by animals, pedestrians and are narrowed by roadside vendors and abandoned vehicles on the edges of the road. Thirdly, numerous traffic jams encouraged the small motorcycles to maneuver in narrow spaces and lastly, there is poor visibility at night due to lack of street light (Odeleye, 2000, Oluwadiya et al., 2004; Solagberu, Ofoegbu, Nasir, Ogundipe, Adekanye & Abdur-Rahman, 2006). This admixture of traffic, human, animals and inanimate obstacles are responsible for some of the peculiarity of road crashes in Nigeria

First-aid care is the care provided in the community and at crash site (at home, school, work or recreation area) or even during transportation until the patient arrives at a formal health-care facility capable of providing definitive care. According to Uthkarsh, Gopalkrishna and Rao, (2013), one of the most common issues raised in relation to first-aid care is the interaction and participation of untrained local lay people and their lack of knowledge and skills in handling the situation in general and the victims in particular. According to WHO (2009) the role of lay people who are present at a crash scene should be: to contact the emergency services; help to put out fires; and take action to secure the crash scene (e.g preventing further crashes, preventing harm to rescuers and bystanders, controlling the crowd of onlookers, and applying First Aid).

The American Red Cross (2008) also defined First Aid as the immediate care given to a person who has been injured or suddenly taken ill. It includes home care if medical assistance is not available or delayed. It also includes well selected words of encouragement, evidence of willingness to help, and promotion of confidence by demonstration of competence. Larsson, Martensson & Alexanderson, (2002) believes that primarily, the goal of basic life support is to maintain the patients' airway, breathing and circulation until expert medical support is provided. Therefore, First Aid is also defined as "any subsequent measures that are provided to people once the affected person has been protected from further injury and help has been summoned (Larsson et al., 2002).

2.1 Knowledge of First Aid among Commercial Motorcycle Riders

Road traffic injuries are a major but neglected public health challenge that requires concerted efforts for effective and sustainable prevention. Of all the systems with which people have to deal every day, road traffic systems are the most complex and the most dangerous. Worldwide, an estimated 1.2 million people are killed in road crashes each year and as many as 50 million are injured. Projections indicate that these figures will increase by about 65% over the next 20 years unless there is new commitment to prevention (Peden, Scurfield, Sleet, Mohan, Hyder & Jarawan, 2004; World Health Organisation, 2004).

There has been a growing concern with the significant increase of individuals injured as a result of accidents involving motorcycles in a number of countries (Naci, Chisholm & Baker, 2009) Despite the use of motorcycles as a major means of transport in some

countries (Fitzharris Dandona, Kumar & Dandona, 2009; Haquea, Chinb. & Huangc, 2009; Oluwadiya, Kolawole, Adegbehingbe, Olasinde, Agodirin & Uweezunkc 2009), or even as an instrument of leisure in others (Bevan, Babl. Bolt & Sharwood, 2008; Mikocka-Walus, Gabbe & Cameron, 2010; Weiss, Agimi & Steiner, 2010; James Grzebietaa, Friswella & McIntoshb, 2011), these vehicles constitute a means of transport considered very risky (Nuan, 2011). This is because they do not have safety devices to the entire body or protection structure for drivers and passengers (Albalade & Fernández Villadangos, 2010). Therefore, motorcyclists are considered one of the groups most vulnerable to transport accidents (Peden *et al.*, 2004; WHO, 2009).

Many drivers take for granted the ability of their automobile to handle minor road hazards such as pot holes or rail road tracks, these minor road hazard are major problems for motorcycles because these hazards may require sudden changes of lane position and direction (Taiwo, Solagben, Ofoegbu, Abdur-Rahman, Adekanyc & Udoffa, 2009). Accidents due to motorcycles riding especially in developing countries like Nigeria increase every year due to the fact that the motorcyclists do not follow the traffic rules and they in their mentality believe they are "the king on the roads" (Federal Road Safety Corp, 2007). They further stated that motorcycle crashes are more likely to occur on certain times, raining seasons in Nigeria is a season for motorcycle accidents because of the filled pot holes with water and the slippery surfaces of the roads. Motorcycle accident is believed to affect the quality of life and to have major social and economic consequences. It causes may be a combination of human errors and failures, poor road signs, adverse road conditions, and vehicle defects. It was noted that the most important aspect of the human factor are the age of the motorcyclist, medical fitness of the motorcyclist, alcoholic consumption pattern, fatigue, mental status and educational level (Odeero, Garner & Zwi, 1997; Lin, Chang Pai & Keyl, 2003; Sexton, Baughan, Elliott & Maycock 2004; Elliot, Baughan & Sexton, 2007).

Motorcycle injuries are among the leading causes of disability and deaths, the main victims being motorcyclists, passengers and pedestrians in the young reproductive age group (Solagben, Ofoegbu, Nasir, Ogundipe, Adekanyc & Abdur-Rahman, 2006). Injuries related to motorcycle contribute significantly to the number of road traffic injuries seen. In Malaysia, a study reported that motorcyclists constituted about 55-57% of total number of road accidents and 60% of traffic fatalities (Abdul, 2003). Also, a study in a private hospital in Port Harcourt, Nigeria documented that 47.3% of RTAs seen

with motorcycle accidents (Ekere & Ibeanusi, 2003). The reported prevalence of motorcycle injuries varies around the world, from 22.8% in China (Zhang, Norton & Tang, 2004) to as high as 62% in Vietnam (Nantulya & Michael, 2002). In Nigeria, prevalence of motorcycle injury ranging from 12.8-60% have been reported in different studies (Aniekan & Sydney, 2003; Okeniyi, Oluwadiya, Ogunlesi, Oyedele, Oyekanu, *et al.*, 2005; Okedare, 2004; Nzegwu, Aligbe, Banjo, Akhiwui & Nzegwu, 2008). In a rural-urban comparative study of commercial motorcyclists conducted in Oyo State, Nigeria, overspeeding was identified as a common cause of RTA by 28.2% of the motorcyclists in the rural and 37.3% of the motorcyclists in the urban area (Sangowawa, 2007).

Basic First Aid training prepares bystanders to react and provide immediate and efficient treatment for a wide variety of incidents including alerting the emergency medical system (EMS), maintaining the airway, breathing and circulation, respiratory and cardiac arrest, and hemorrhage control. The response time in emergency situations is critical, but the First Aid provided must be performed properly in order to prevent further complications and potentially save lives (Engeland, Roysamb, Smedslund & Soogard, 2002). They also believed that to improve the emergency response and outcome, First Aid must be taught correctly to a broad spectrum of individuals within the community, workplace, and healthcare environment. However, with the need for effective initiation of intervention being known, healthcare professionals and laypersons often face criticism for inadequate basic lifesaving skills.

Insufficient skills of basic life-saving are caused by a lack of training and appropriate instruction, limited practice, lack of self-efficacy, and poor skill retention (Das & Elzubair, 2001). While millions of people are being trained each year, the efficacy of this training, and the subsequent performance of the skills learned, has come into question (Higdon, Heidenreich & Kem, 2006; Parnell & Larsen, 2007). Many necessary skills of First Aid are forgotten shortly after certification with rapid deterioration of skills and knowledge in two to six months (Eisenburger & Safar, 1999; Mahony, Griffiths, Larsen & Powell, 2008).

The knowledge of First Aid by road users especially commercial motorcycle riders can lead to a reduction in road traffic injuries and also increase their awareness on safety measures and reinforce positive behaviours on the road. For instance, Lingard (2002)

specifically discusses the effect of First Aid training on Australian construction workers safety motivation and risk control behaviour. All participants attended a generic emergency First Aid training course of twenty-one hours in length offered by St. John Ambulance Australia. The observations at the participants' worksites suggested that for the most part, the First Aid training had a positive effect on the occupational safety and health behaviours of participants. It also made them more aware that their own behaviour is an important factor in the avoidance of occupational injury and illness. It also appeared to reduce participants' willingness to accept prevailing levels of occupational safety and health risk and increase the perceived probability that they would suffer a work-related injury or illness. First Aid training motivates participants to avoid occupational injuries and illnesses and improves their risk control behaviour. The implications are that First Aid training can have a positive preventive effect in addition to traditional safety training and should be provided to all employees rather than just a few designated First Aiders.

2.2 Perception on First Aid

The need for First Aid training is greater than ever. This is due to population growth throughout the world and increased use of technological products; such as mechanical and electrical appliances in everyday home use, work places and play areas which make more people at risk of injury. Thus, there is an ever growing demand for First Aid training for personal use and from the demand for certified First Aiders as part of industrial and commercial establishments. In general First Aid is aimed to help for others, preparation for knowing what to do during disaster as well as to help self. Thus, there are some essential things to consider while giving First Aid (Alemaychu, 2006):

- i. To sustain/preserve life: This involves emergency resuscitation and control bleeding and shock.
- ii. To prevent worsening of the problem (complications): Preventing the condition from becoming worse or complicated by covering wounds, immobilize fractures, large wounds and any injured part, handle gently and carefully at all times, move as little as possible and protect injury from cold;
- iii. To promote healing and recovery: Promoting healing and recovery of casualty involves: placing the casualty in correct and comfortable position, reassure and give any other treatment needed to relieve pain, convey the casualty without delay to home or to hospital, transport the victim in a serious case summon (inform) a health personnel.

First Aid services are a continuum of activities at the crash site and till the injured person is adequately managed by hospital staff. First care responders, the ones who are first at the crash site, can take necessary steps for safety and smooth management, especially where transportation systems are yet to develop. In most low and middle income countries (LMICs) like India and Nigeria, transportation of road traffic victims, is usually provided by relatives, drivers of private vehicle (three wheeled autorickshaws, taxis and other local vehicles), police officers, and other motorists who are usually untrained (Mock, Tiska, Adu-Ampofo & Boakye, 2002; Kobusingye, Flyder, Bishai, Hicks, Mock & Joshipura, 2005). Ambulances, if available, usually exist only in urban areas (von Elm, 2004) and it takes them a long time to arrive in rural areas. Studies have shown that the inadequacy of public health infrastructure and poor access to health services are important reasons for the high burden of RTIs and/or their severity (Mohan, Tiwari, Meleckidzedek & Fredrick, 2006). One of the most common observations in relation to pre-hospital care is the interaction of untrained lay people and their lack of knowledge and skills in handling the situation in general and the victims in particular.

A study conducted in India by Pallavisarji, Gururaj & Girish (2013), to know the current practice and perception of First Aid among lay people, reported that nearly 60% of participants in the study other than ambulance personnel had witnessed more than two emergencies in the last six months, adding to the fact that lay people regularly witness emergencies and they can provide help in pre-hospital settings. They observed that the most common aid provided was calling an ambulance (42%) in contrast to study in Kampala where lifting/moving (82%) the victims was common (Jayaraman, Mabweijano, Lipnick, Caldwell, Miyamoto & Wangoda, 2009). Also, most commonly lay first responders transported cases to a nearby government hospital (50%) or private nursing homes (50%) which most often lacks the definitive care, leading to delay in definitive care (Carr, Caplan, Pryor & Branas, 2006). Other than ambulance autos (40%), private vehicles were commonly used to transfer cases to hospitals which is similar to other studies (Gururaj, 2008; Shaw, Menon & Gururaj, 2009; Uthkarsh, Suryanarayana, Gautham, Murthy & Pruthivish, 2012) showing that auto drivers are the first responders in most of the emergencies where ambulance personnel are not available.

Taking an injured person to a hospital is considered the most effective way to save lives (Husum, Oilbert, Wisborg, Van Heng, & Murad, 2003) and in the present study, nearly 50% have reported that it took them more than an hour to reach a hospital in the last

emergency they handled, which is consistent with the other studies (Carr, Caplan, Pryor & Branas, 2006; Uthkash, Suryanarayana, Gautham, Murthy & Pruthvish, 2012). Delays in availability of definitive care could be an important reason for poor and negative outcomes in many LMICs. Nearly 58% of study participants felt confident enough to provide First Aid, nearly 45% of those who were confident to provide aid had some experience of First Aid training. Other than ambulance personnel who were trained during their professional course, training of other first responders in First Aid was merely a brief orientation to First Aid without much focus on how to handle an emergency. This type of training does not provide the real knowledge and skills required to handle emergencies confidently, thus emphasising the need for more focused training programmes to increase their knowledge and skills in providing First Aid. Though ambulance personnel were trained, the lack of confidence among them emphasises the need for periodic remedial instructions to update them in the field of First Aid. Significant numbers of neurological injuries appear to be a result of the extrication process or victim transportation without adequate immobilisation generally by untrained people (Mohan, Tiwari, Melekidzedek & Fredrick, 2006).

2.3 Personal experience of road traffic injuries involving motorcycles

A recent, but increasingly accepted, method of road transport is the use of motorcycles popularly known in different places in Nigeria as *okada*, *achaba*, *bodaboda*, among others (hereafter *okada*). The *okada* taxi business is no more a negligible business in Nigeria, with 8 million riders on the roads, their population is more than the population of many countries in Africa (Nwabugwu 2011). Its acceptance as a means of transportation is marked by the formal registration of an *okada* riders' association with the Nigerian Corporate Affairs Commission, the agency charged with the registration of businesses.

An *okada* possesses several unique qualities that promote their use in public transportation. An *okada* is small in size; it has a high power to weight ratio, and easy, flexible steering and utilises the narrow width of the road and provides access to otherwise inaccessible areas. Other factors include its easy affordability in terms of its low cost of purchase and high fuel efficiency. Also, it is readily available and there is no road too narrow nor place too remote for an *okada* to ply for business (Adesanya 1998). Beyond *okada* factors, Nigeria generally lacks proper urban planning, and there are no good road networks. Also there are no good drainage systems, and the roads are thinly

coated; consequently, they are easily washed away (Ooi 2004a, 2004b). The spiraling population also means that the roads are used excessively, given the underdeveloped nature of the waterways and railways which could have served as alternative means of transport. All these and more have led to the popularity and wide acceptance of the *okada* as a means of transport among urban and rural dwellers (Olawole, 2010).

The acceptance of *okada* as a means of transportation in Nigeria has resulted in the high rate of road accidents as well as a large number of deaths from these accidents. Although, one may be tempted to believe that the level of awareness on the causes of road traffic accidents is very low among Nigerians. However, contrary to the general belief that Nigerians possess very low level of awareness on the causes of road traffic accidents, previous research has shown that Nigerians know quite a lot about what could cause road traffic accidents (Asalor, 2010). Accidents are a major cause of death and disability. Hence, accident prevention can be regarded as an important part of health promotion. Ato and Aderinlewo (2012) reviewed that there are three levels at which accident prevention occurs namely:

- Primary prevention which involves removal of circumstances causing injury such as traffic speed reduction, fitting stair gates for young children and reducing alcohol consumption.
- Secondary prevention which involves reducing the severity of injury should an accident occur such as use child safety car seats, bicycle helmets and smoke alarms.
- Tertiary prevention which involves optimal treatment and rehabilitation following injuries such as effective First Aid, appropriate hospital care.

Although the quality of emergency care has tremendously improved, First Aid care given to victims at this critical period is still a big challenge (Bouillon, 2014). The assistance given during the first few minutes after road traffic accidents is of vital importance for the victims, especially in terms of their future health status and quality of life (Ertl & Christ, 2007). A quite long time may have passed before an ambulance arrives and provides professional help. Immediate life-saving assistance is of paramount importance, which if not available, may lead to death of the injured victims due to some reasons, such as airway obstruction (Ifagbani-Bidgoll, Hesselberg & Khankeh, 2010). The earliest

action taken by the first person arriving at the scene of crash is to protect the victim from further injury, request for more help, and assure that an ambulance has been called

In addition to some initial efforts such as scalling for emergency services, putting out fire, and preventing further accidents, the person can perform First Aid for the victim (Larsson et al., 2002). Common First Aid training concepts often fail in teaching practical skills to lay the victim in a correct position so that he/she can be retained for a long time (Dumas & Rea, 2012). Adequate treatment by the First Aider is highly relevant and can provide a realistic chance to improve the outcome of the victim. It is crucial that the every road user have the knowledge of providing First Aid for the victim. Thus, training of these people is very important. But educating all people is not feasible in reality. Proper education on riders who most frequently present in road traffic accidents, is meaningful (Geduld & Wallis, 2011).

2.4 Factors Influencing Application of First Aid

There is a major and growing public health concern in preventing serious injuries and deaths from motorcycle crashes. It was estimated that motorcycle accidents claimed 4,502 lives in 2010, while motorcycle-related deaths increased by 55% since year 2000 (Centre for Disease Control and Prevention, (CDC), 2014). Most of the world's accidents occurred in LMICs of the world whereby public transport vehicles, private cars, three and two-wheeled vehicles and pedestrians significantly contributed to road accidents in one way or the other (WHO, 2009).

Causes of road traffic accidents

The causes of road traffic accidents depend on a list of factors which can be broadly divided into:

1 Vehicle Operator or Driver or Rider Factors

The major contributing factor for many crashes is the performance of driver in both smgle vehicle and multivehicle crashes. The pre-crash rider behaviour and attitude is very important in judging the rider's actions. These include Inattention, cigarette smoking, medical conditions, alcohol and drug abuse, inattention to the roadway and surrounding traffic, speeding and disregard of traffic laws and/or traffic control devices. Driver fatigue has been identified as a major cause of serious accidents owing to reduced driving performance efficiency. Over a quarter of long distance lorry drivers reported falling asleep at the wheel at some time during the

previous 12 months of driving (Connor, Whitlock, Norton & Jackson, 2001). However, fatigue-related accidents are complex, and numerous factors have been proposed for the causes of fatigue and low alertness implicated in increased driver risk. These causes includes stress and task demands, hours on task, sleep deprivation and disorders, time of day and circadian variation, and effort investment and motivation (McCart, Rohrbaugh, Hammer & Fuller, 2000).

Human factors are without doubt the most complex and difficult to isolate as they are almost all very temporary in nature. Motorcyclist today are faced with many problems when driving in congested and overcrowded cities, specifically by having the senses overloaded by the vast amount of information that needs to be continuously processed, a condition also known as information overload (Van & Donald, 2001). The types of information a typical city rider may encounter and need to react upon are numerous.

ii. Vehicle/cycle factors

A small percentage of crashes are caused by mechanical failure of a motorcycle such as some form of tyre failure or brake failure. The vehicle and roadway interaction play a major role in stopping the vehicle from encroaching the off road features like wheelbase, median and other traffic signages. Other vehicle characteristics like wheelbase and height of centre of gravity play an important role in rollover crashes. Improvements have been made in the manufacture of tyres and vehicle design, however, defects can still occur during use or if the product is poorly maintained.

iii. Road condition factors

The roadway conditions like the quality of pavements, shoulders, traffic control devices and intersections can be a factor in the crash. Fewer traffic control devices and complex intersections with excessive signage lead to confusion. Highways must be designed for adequate sight distances for the design speed. The traffic signals should provide enough time to make a decision when the signal changes from green to red. The super elevation on highways and especially ramps should be carefully laid with correct radius and appropriate transition zones for the vehicles to negotiate curves between the pavement and tyres.

Road factors include, but are not limited to view obstruction, surface characteristics, dimensions, signs and signals and protective devices. All factors are subject to modification by outside influences such as the road surface that becomes slick from rainfall. Some roads were not built to serve the current high-volume and/or high-speed traffic needs. The safety of these roads is limited by hazards such as sharp curves, poor signs and pavement marking, and lack of medians to separate oncoming traffic.

iv. Environmental factors

The climatic and environmental conditions can also be a factor in transportation crashes. Wet pavement reduces friction and flowing or standing water can cause the vehicle to hydroplane. Many severe crashes have occurred during conditions of smoke or fog which can greatly reduce visibility. Vehicle travelling at high rate of speed are unable to see the slowing and or stopped vehicles in front of them which can lead to multiple-vehicle pile-up. Glare can reduce driver/rider's visibility, especially during the hours of sunrise and sunset. Wind gusts can affect vehicle stability, especially of large trucks and light weight vehicles such as bicycles and motorcycles.

2.5 Road Safety Management Framework

Today, the work of Haddon (1968) is the most commonly used paradigm in the injury prevention field. Developed through the application of basic principles of public health to the problem of traffic safety, the Haddon matrix as it is popularly called is used as a tool to assist in developing ideas to preventing injuries of many types. It provides a compelling framework for understanding the origins of injury problems and for identifying multiple counter measures to address the problem.

The Matrix combines public health concepts of Host-Agent-Environment as targets of change with the concepts of Primary, Secondary and Tertiary prevention. More specifically the columns in the matrix define the interacting factors that contribute to the injury process. For instance the host column refers to the person at the risk of injury while the agent of injury is energy e.g (mechanical, thermal or electrical) that is transmitted to the host through a vehicle (inanimate object) or vector (person or other animals). Physical environment on the other hand covers all the characteristics of the setting in which the injury event takes place such as a roadway or building, while the social environment

covers such social and legal norms as alcohol consumption or policies about licensing drivers.

Using the framework, the 4-Es namely: Engineering (Roads and vehicles), Enforcement (laws) Education (Public awareness) and Emergency response (Post-crash Medicare) have been developed as the main thrusts of accident prevention and control across the world. But most recent attempts at managing road safety in developing countries are encapsulated in the safe system approach which regards road users as the weakest link in the transport chain, unpredictable and capable of errors in spite of his level of education and access to information. The approach transfers a major share of the responsibility from road users to those who design the road transport system since the goals of the safe system is to ensure that crashes do not result in serious human injury.

Key distinguishing features of the safe system approach are the following:

- (i) Recognising that prevention efforts notwithstanding, road users will remain fallible and crashes will occur;
- (ii) Shared responsibility among the designers of the road transport system (to make it safe) and users of the system (obligation to comply with rules and constraints of the system);
- (iii) Alignment of safety management decisions with broader transport and planning decisions;
- (iv) Shaping interventions to achieve long-term goal.

Based on these, the approach has five main cornerstones namely: Safe vehicles, safe roads and mobility; safe road user behaviour, and post-crash response and care.

This matrix illustrates the interaction between the three factors (human, vehicle and infrastructure) in the course of the three phases of a crash: before, during and after the impact.

Table 2.1: Haddon Matrix

Phase		Human	Vehicle and equipment	Environment
Pre-crash	Crash prevention	Information Attitude Impairment Police enforcement	Roadworthiness Lighting Braking Handling Speed Management	Road design and Road layout Speed limits Pedestrian facilities
Crash	Injury prevention during the crash	Use of restraints Impairment	Seat belts Occupants restraints Other Safety Devices Crash-protective design	Crash-Protective Road side Objects
Post-Crash	Life Sustaining	First-aid Skill Access to medicines	Ease of Access Fire Risk	Rescue Facilities Congestion

Source: WHO/World Bank-World Report 2004.

2.6 First Aid Training/Intervention

There is little investigation into the perspectives of factors influencing First Aid intervention at road traffic accidents. However, many studies discuss the importance of First Aid in preventing injury and mortality, certainly, many studies show that there is a low incidence of First Aid intervention. Henriksson, Ostrom & Eriksson (1998) in a Swedish study suggests that the absence of First Aid intervention contributed to the death of 4% of traffic accident victims. A Western Australian report notes that 7% of deaths can be related to a lack of First Aid (Mabbott, 2001) and Ashour, Cameron, Bernard, Fitzgerald, Smith & Walker (2007) suggest that 4.5% of potential pre-hospital deaths may have been prevented with First Aid intervention. A Polish study (Goniewicz, 1998) explored the reasons why people are not willing to intervene at a RTA. In their study, of

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560 government drivers, they found that there were primarily psychological barriers that caused people not to intervene in accidents.

The psychological barriers expressed by the participants included feelings of inadequacy, expressed as a lack of the necessary First Aid skills, due to poor quality training and/or poor skills transfer. Eisenburger & Safar (1999) also noted that psychological barriers may impact whether or not bystanders intervene at an accident site. They report that the crowd at the scene can be frightening and stage fright can make helpers nervous resulting in their declining to intervene. Cheung, Ho, Kou, Kuong, Lai, Leow, et. al (2003) found that the most common reason for not having First Aid training was lack of time, with only 12% of the sample group with current First Aid training. The study also revealed that those with First Aid training still had a level of knowledge that was far from satisfactory and this needs further investigation.

A study by Kendrick and Marsh, (1998) of parental First Aid interventions, found that 75% of participants knew the correct treatment for a variety of basic First Aid scenarios. However, 25% of the participants did not feel confident to use their skills to intervene. Furthermore, ethnic minorities were likely to have less knowledge but be more confident to take an active role in First Aid. Further to the lack of skills, whether real or perceived, Mabbon (2001) suggests two other reasons why people do not render assistance at road traffic accidents: a perception of personal harm (such as contracting an infectious disease) and the perceived risk of litigation. In concurrence with Mabbon (2001), Eisenburger and Safar (1999) noted that fear of legal prosecution seems to make some bystanders and health professionals hesitate to act. The fear and safety concerns of interveners were also explored by Jelinck, Gennat, Celenza, O'Brien, Jacobs, & Lynch, (2001) who noted that a reluctance to intervene and provide First Aid predominantly resulted from fear of health and safety risks such as infection.

2.7 Conceptual Framework

The PRECEDE Model

The PRECEDE stands for Predisposing, Reinforcing, Enabling Constructs in Educational/Environmental Diagnosis and Evaluation. Developed in the 1970s, this component of the model posits that an educational diagnosis is needed to design a health promotion intervention (Green and Kreuter, 1991), just as a medical diagnosis is needed to design a treatment plan.

According to the PRECEDE model, three typologies of factors influence behaviour. These are predisposing, enabling and reinforcing factors. These typologies of factors influence the practices of First Aid among CMR as well.

Predisposing factors include factors such as attitudes, beliefs, values and perceptions, which facilitate or hinder personal motivation for change one's behaviour or action (Green and Kreuter, 1991). Factors such as these which influence the perception of commercial motorcycle riders on First Aid training and treatment.

Enabling factors include factors relating to resources such as time, money, facilities, skills and policies that affect First Aid training and learning skills. An assessment of these factors which can influence the utilisation and implementation of proper First Aid treatment during RTAs.

Reinforcing factors are those factors related to the influence of significant others (Green and Kreuter, 1991). Within the context of this study, these include influence of significant persons such as other motorcyclist/road users, boss, relatives etc. Information given by mass media related to the importance of First Aid treatment is also very essential.

A diagrammatic expression of the PRECEDE model to guide the study is presented in Figure 2.1.

Application of the PRECEDE model on Knowledge and Practices of First Aid among CMR

Inherent in the framework is that every behaviour is caused by some behavioural antecedents. These antecedents or behavioural underlying factors could be differentiated into three typologies namely: predisposing, enabling and reinforcing factors (Green and Kreuter, 1991).

Predisposing factors: Factors that could predispose CMRs to acquiring First Aid skills in order to change their perception and improve their knowledge on First Aid to accidents victims include public enlightenment and mass communication, on basic awareness on the need to help during accidents to prevent untimely death, and other major disability that could occur if help is not gotten on time. These strategies facilitate the CMRs motivation for change.

Enabling factors: The factors that could enable CMR to carry out effective First Aid treatment during RTA involve training, advocacy and lobbying. These strategies encompasses the importance of the factors relating to resources such as time, facilities, skills and competence of CMR present at accident scenes

Reinforcing factors: The strategies to be applied in reinforcing behaviour of CMR in order to improve their knowledge and practices of First Aid during road traffic accidents includes the use of mass communication tools and social support.

A diagrammatic expression of the PRECEDE model to guide the study is presented in Figure 2.1.

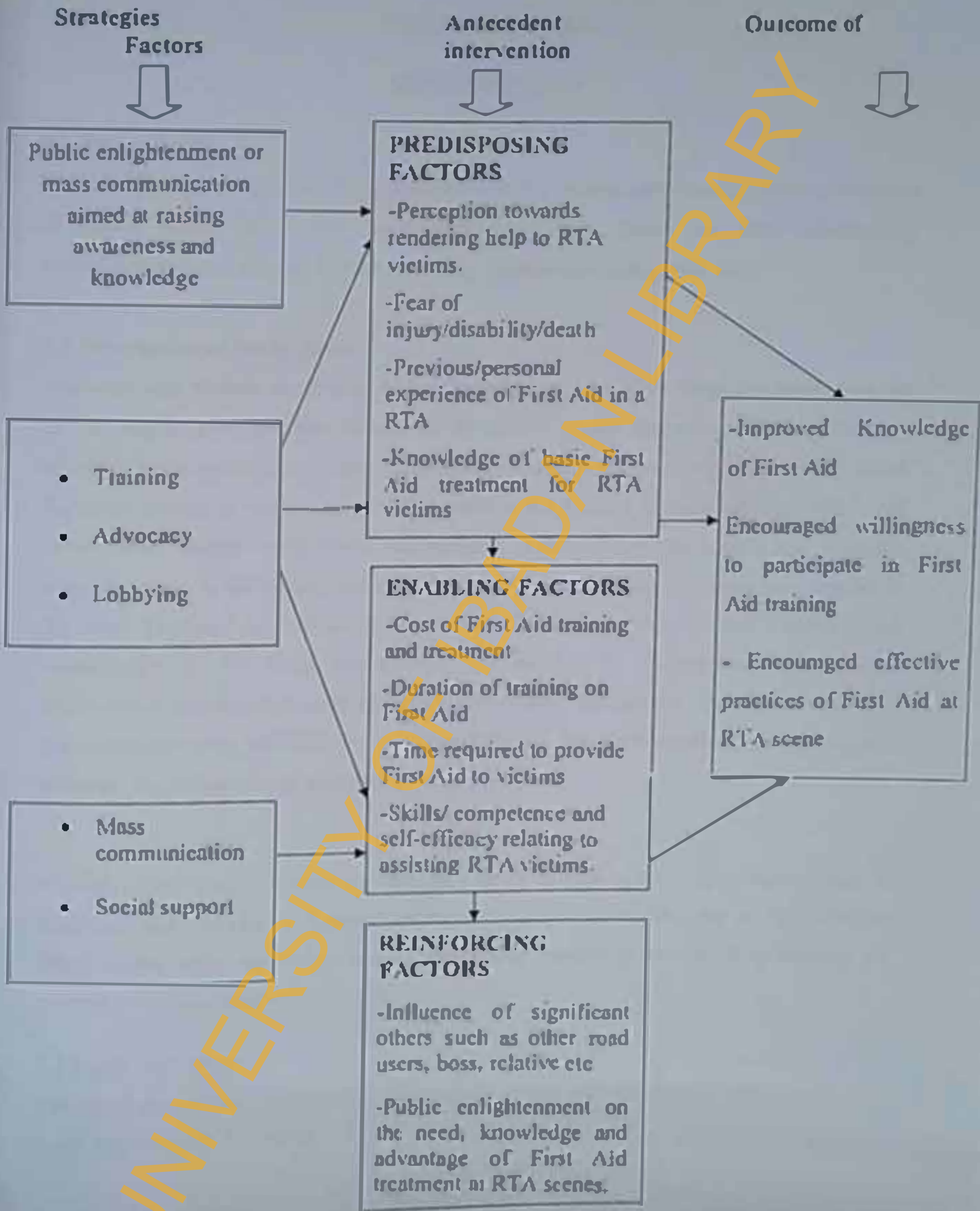


Fig 2.1.

The PRE-CL-DE framework adapted from Green and Kreuter (1991)

CHAPTER THREE

METHODOLOGY

3.1 Study Design

This study was a descriptive cross sectional survey among commercial motorcycle riders in Ibadan North East Local Government Area, Oyo State. The study investigated knowledge and practices of First Aid among commercial motorcycle riders.

3.2 Description of Study Area

The study site, Ibadan North East Local Government Area, Oyo State was created on the 29th of August 1991 and has an area of about 15.5 square kilometer, with a population estimated to be over 200,000. The administrative headquarter is in Agodi, which is one of the major centers in Ibadanland. It is bounded in the East by Egbeda and Ona Ara Local Government, Ibadan North Local Government in the west, while Lagelu and Akinyele share boundary in the North, and bounded by the Ibadan south east local government in the south. The local government is made up of 12 political wards. A large number of the communities in the local government are inner core (indigenous) communities characterized by poorly planned housing and poor drainage system. The rest are transitory and peripheral areas which are mostly populated by the non-indigenes. Christianity and Islam are the two dominant religions.

Majority of the people depend on commuter services such as taxis, commercial buses & minibuses and motorcycles as means of internal transportation. Also, due to the dwindling nature of the nation economy, there is tremendous increase in the use of motorcycle for commercial purposes in major towns.

3.3 Study Population

The study population consisted of commercial motorcycle riders in Ibadan North East Local Government, Oyo state.

3.4 Inclusion criteria

1. The respondents must be a commercial motorcyclist and be willing to participate.
2. The respondents must be at their unit or post during the period of the interview.

3.5 Sample Size

The size was calculated by using the formular:

$$n = \frac{z^2 pq}{d^2} \text{ (Leslie Kish, 1965)}$$

n= the desired sample size

z= the standard normal deviate set at 1.96 (which correspond to the 95% confidence interval)

p = 0.50 (Aronsayin, Olowosulu & Oyeyemi, 2012)

d= the degree of accuracy set at 0.05

$$\text{sample size (n)} = \frac{(1.96)^2 \cdot (0.50) \cdot (0.50)}{(0.05)^2} \quad n = 384.16$$

The sample size was rounded to a whole number of 385 and a non-response rate of 10% was added to the calculated sample size to make it 423. This was done so as to accommodate the possible problem of incomplete responses and possible cases of attrition due to one factor or the other. However, after the end of data collection, the sample size of 385 completed questionnaires were chosen for data analysis.

3.6 Sampling Technique

A preliminary study was conducted to document the number of motorcyclist units in Ibadan North East LGA, including the number of motorcyclist in each. This was done by reviewing their records and visits were then made to all the units to document the number of registered motorcyclists. The study revealed that there were a total of 26 units consisting of 799 commercial motorcyclists.

The procedures adopted for the selection of the motorcyclists consisted of the following steps:

Step 1: Proportional sampling method was used to determine the proportion of motorcyclist to be surveyed in each unit. This was calculated using the following formula:

Proportion of motorcyclists selected from each unit =

Total number of commercial motorcyclist in each unit	X	Sample
Size		
Total number of commercial motorcyclist in Ibadan North East LGA		1

Step 2: Systematic random sampling method was then used to select motorcyclists from the quota allocated to each unit with each unit register serving as sampling frame from where surveyed motorcyclist were drawn using the following sub-steps below:

- a. Comprehensive lists of all registered motorcyclist in 26 units were compiled. This served as a sample frames. A number was then assigned randomly to each motorcyclist in the sample frames.
- b. Using formula N/n , a sample interval k was determined, where N was total population of commercial motoreyclists in Ibadan North East L.GA and n was the sample size.

$$K = N/n = 799/384 = 2.08 \text{ which is approximately } 2$$

- c. Balloting was then used to select the starting point from the sampling frames, after which the sampling interval k was used to select motoreyclists from the sampling frames until the sample size attained.

3.7 Instrument for Data Collection

The quantitative method of data collection used was the semi-structured interview; this was facilitated by the use of a semi-structured questionnaire.

Semi-structured questionnaire

The instrument was designed after reviewing related literature on First Aid and its utilisation with specific reference to pertinent variables relating to knowledge, perception, willingness, experiences, practice, and factors influencing utilisation of First Aid among motorcyclist. The instrument was then designed in line with the specific objectives of the study and facilitated by the use of adapted theoretical frameworks, PRECEDE. The items on the questionnaire were divided into seven sections (A, B, C, D, E, F and G).

Section A: consisted of questions for documenting the socio-demographic characteristics of the respondents;

Section B: was used to measure knowledge of respondents on First Aid.

Section C: included questions that identified the perception of respondents on First Aid application.

Section D: questions in this section were used to document willingness to undergo First Aid training by respondents.

Section E: contained questions on respondents personal experience of road traffic injuries;

Section F: included questions that identified respondents practice of First Aid while;

Section G: included questions that determined factors influencing application of First Aid by respondents (see Appendix I).

3.8 Validity and Reliability

3.8.1 Validity

In order to ensure validity of the study instrument, relevant literatures were reviewed with a view to learning about pertinent variables which needed to be measured in this study before developing the questionnaire for the main study. The questionnaire was subjected to review and corrections by my supervisors and experts in the fields of health promotion and education, biostatistics, which after that, it was approved and ready to be used. The questionnaire was translated to Yoruba language by someone who was versed in Yoruba and English. There was back translation to English by another person who was equally an authority in Yoruba and English with a view to verifying the accuracy of translation (see Appendix I & II for the English and Yoruba version of the questionnaire respectively).

3.8.2 Reliability

In order to ensure the reliability of the questionnaire, a pre-test was conducted among commercial motorcyclists living in Apete community in Ido LGA, Ibadan, Nigeria. The pre-test exercise served as a pilot study for the data collection procedures. It helped in determining problems which need to be overcome during the main data collection process. The pre-test enabled the researcher to determine the trend in the responses of participants, their level of understanding of the items in the research instruments and the duration of time it will take to administer the instruments. To confirm the reliability of the instrument, analysis of the pre-test data was done using Cronbach's Alpha correlation coefficient of the Statistical Package for Social Science (SPSS). Cronbach's Alpha is a model of internal consistency, based on the average inter-item correlation. This was done to ascertain the psychometric properties of the instrument. According to this approach, a result showing correlation coefficient of 0.5 and above i.e. closer to 1 is said to be more reliable (Akinlode, 2000). The result of the analysis of the data following the pre-test was 0.78 which shows that the instrument was reliable.

3.9 Training of Field Assistants: Training was conducted for five recruited Field Assistants (FAs), three male and two female for three days. This was aimed at upgrading the knowledge of FAs relating to the nature of the study, the content of the instruments, mode of administering the instrument, as well as the required interviewing skills. The training also focused on the objectives, justification of the study, sampling processes, how to secure respondents' informed consent, and how to review questions to ensure completeness. The training opportunity provided the FAs were practical experiences relating to the conduct of the study.

3.10 Data collection process

Five (5) trained Field Assistants (FA) helped in the administration of the questionnaire which lasted for a period of two weeks. All the field assistants were post-graduates of Public Health and have already had experiences in field data collection. The investigator and the FA moved from one unit to another to interview the number of respondents eligible for interview in each unit. Prior to the administration of the questionnaires, respondents were provided with some information about the study. This included information relating to the nature of the study objectives, selection process of respondents, time frame for the interview and issues about confidentiality of responses (see details in Appendix I). Only respondents who gave their consent were interviewed using the set of questionnaire. The researcher made provision for interviewer-administered questionnaire in the local language (Yoruba) for respondents that did not understand English ensuring that the wordings of the questions contained in the questionnaires was easy to comprehend, and help was given to the respondents with difficulties where necessary.

3.11 Data Management, Analysis and Presentation

Copies of the administered questionnaire were thoroughly scrutinised by the researcher in the field in order to ensure that they were well completed. Any problem noted during data collection was resolved immediately in the field. Copies of the questionnaire were then assigned serial number for easy identification and recall of any copy with problems. Copies of the questionnaire were edited and coded by the investigator facilitated by use of a coding guide. The data in each copy of the questionnaire were entered into a computer system for analysis using SPSS. The data were analysed using both descriptive statistics (mean, percentages) and inferential (Chi square test, logistic regression). The

retrieved copies of the questionnaire were stored in a place safe from destruction by elements of weather and fire and also where unauthorised person would not have access to them. The results of the study are presented in tables and charts in chapter four.

3.12 Measurement of Variables (Knowledge and Perception)

A 24-point knowledge scale was used to measure the knowledge of respondent. Nine (9) questions were asked where; four (4) points each was allocated to correct responses in three (3) opened ended questions and two (2) point each was allocated to correct responses in the remaining six (6) structured questions. Zero (0) was allocated to Don't know/Not sure, no response and wrong answers; thus bringing the total points to twenty-four (24). The knowledge scores of <8 , $\geq 8-16$ and >16 were categorised as poor, fair and good, respectively.

A 15-point perception scale was used in measuring perception. Five (5) questions were asked and three (3) points were allocated to correct response only, thus bringing the total points to fifteen (15). Thus, the perception scores of ≤ 8 and >8 were classified as negative and positive, respectively.

3.13 Ethical Consideration

The study followed the basic ethical principles guiding research involving human participants. Ethical approval was sought from Oyo State Ethics Review Committee. Adequate information regarding the study was given to the respondents. Informed consent was obtained from the study participants before they were interviewed. Participants were assured of the confidentiality of their responses during and after data collection. They were informed that information obtained from them would be used for research purposes only. Research participants were told that participation in the survey was voluntary, and that they could withdraw at any time if they so wished without any penalties or loss of privileges. Each respondent was assured that participation in the study was voluntary and that information disclosed by the participants would be kept confidential. The respondents were also told that their names would not be written on the questionnaire. Respondents were encouraged to ask questions on what they did not understand in the questionnaire. Explanations were given to respondents as required to aid their understanding of unfamiliar terms.

3.14 Limitation of the study

Efforts were made to ensure that questions were simple, clear and devoid of technical terms that the respondents might not understand. Basic ethical guidelines including confidentiality of information and voluntarism were stressed with a view to encouraging respondents to be as honest as possible.

Participants were not asked to give their names during the interview. It had been assumed that since participation in the study was totally voluntary, it was only those who were willing to participate that were enrolled in the study. At times during questionnaire administration, passengers' entry into the motorcycle stand occasionally caused disruption to the interview process. Each time this occurred, interview had to be suspended till later time when the motorcyclist return from their trips. Consequently, all the responses provided which formed the basis of findings of this study were assumed to be correctly and honestly given.

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CHAPTER FOUR

RESULTS

The data are presented in this chapter. It includes demographic characteristics of the respondents, their knowledge and perception on First Aid during RTIs, willingness of the respondents to participate in First Aid training, their personal experience of road traffic injuries, First Aid practices and factors that could influence application of First Aid among the respondents.

4.1 Socio-Demographic Characteristics of Respondents

The respondent's mean age was 30.6 ± 11.3 . All the respondents were male, almost half (49.9%) were married while few (35.8%) had secondary education. Majority (80.3%) of the respondents had used motorcycles for 1 to 5 years. Majority (82.6%) said they did not have a certified license to ride. Majority (82.3%) said they had never undergone First Aid training. Only a few (35.6%) frequently service their motorcycle once in a month (see Table 4.1).

Of the 266 who claimed they had undergone training to ride motorcycle, 45.1%, 27.4%, 19.2%, 4.1%, 3.4% and 0.8% reported they were trained by their friends, relatives, boss, former employer, themselves and riding school, respectively (Fig.4.1). Of the 67 respondents that had license to ride, 29.9%, 56.7% and 13.4% said the duration of certification was 1-3, 4-6, and 7-10 years respectively. Also, only 68 had First Aid training, while 58.8% of this had it in the last 1 to 3 years, 35.3% in 4-6 years and 5.9% more than 6 years before the study was conducted. When asked who conducted the most recent First Aid training, 50.0% said medical personnel, 17.6% driving school, 14.7% Red Cross, 10.3% FRSC, GNLD (7.9%), NYSC (2.9%) and relatives (1.5%) Fig. 4.2

Table 4.1: Socio-demographic characteristics of respondents

Variables	(N=385)	
	Frequency (N)	Percentage (%)
Age Group		
15-24	143	37.1
25-44	182	47.3
45-64	59	15.3
>64	1	0.3
Marital Status		
Single	176	45.7
Married	192	49.9
Divorced	10	2.6
Widowed	7	1.8
Educational Status		
Informal	50	13.1
Arabic	19	4.9
Primary	126	32.7
Secondary	138	35.8
Tertiary	52	13.5
Number of years of riding		
1-5	309	80.3
6-10	69	18.9
>10	7	1.8
Did you undergo training to ride motorcycle		
Yes	266	69.1
No	119	30.9
Do you have a certified license to ride?		
Yes	67	17.4
No	318	82.6
Have you ever had First Aid training?		
Yes	68	17.7
No	317	82.3
How frequently do you service your motorcycle?		
Twice in a month	127	33.0
Once in a month	137	35.6
Once in three months	29	7.5
Once in a year	3	0.8
No fixed time	89	23.1



Figure 4.1: Participants' source of training on how to ride motorcycle

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Figure 4.2: Respondents' source of First Aid training

4.2 Knowledge of First Aid among Commercial Motorcycle Riders

From this study, the respondents' knowledge of First Aid was graded into three, poor, fair and good. The mean knowledge score was 8.1 ± 4.1 with majority (79.2%) of the respondents having poor knowledge of First Aid, 18.5% had fair knowledge while just 2.3% of the respondents had good knowledge (See Figure 4.3).

When asked about the respondents understanding of First Aid, few (54.0%) understood it as helping road accident victim, 17.9% of the respondents understood it as first treatment given to an injured person while only 11.2% of the respondents were able to define it correctly as the first treatment given to an injured person before taken to the hospital (see Table 4.2a).

Few (37.9%) of the respondents believed the first step to take when approaching the scene of an accident is to ensure safety of the accident scene and the casualty while 28.6% reported that the first step to take when approaching the scene of an accident is to transport the victim to the hospital. Majority (65.5%) of the respondents said removing helmet in case of head injury is a way of reducing injury. Above half (57.7%) of the respondents said that the first step when caring for bleeding wound is to apply direct pressure with a clean dressing, majority (66.0%) also believed that it is advisable to give victim something to drink or eat, 68.8% of the respondents said it is true that the bone should be kept in fixed position in case of broken bone prevent more damage while majority (70.1%) of them rejected that rinsing of skin abrasion with soap and water help to prevent infection (see Tables 4.2a & b).

When asked a multiple response question about ways to stop bleeding, few (23.7%) of the respondents said it can be stopped by the use of petrol or kerosene, 22.6% said bleeding can be stopped by the use of clean cloth or bandages, 17.3% reported that the use of spirit and cotton wool can stop the bleeding while 11.5% said the victim must be taken to the hospital in order to stop the bleeding (see Table 4.3). When asked another multiple response question about ways to ensure breathing in the airway, few (25.1%) responded that it could be ensured by pouring water on the victim, 19.6% through blowing air into the victim mouth, 12.1% said by fanning the victim while 24.0% of the respondents said to ensure breathing in the airway, the victim must be rushed to the hospital (see Table 4.4).

(N=385)



Mean Knowledge score: 8.1 ± 4.1

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Table 4.2a: Knowledge of First Aid among Commercial Motorcycle Riders (N=385)

Variables	Frequency (N)	Percentage (%)
What do you understand by First Aid		
Transporting victim to hospital	12	3.1
First treatment given to an injured person before taken to the hospital *	13	11.2
First treatment given to an injured person	69	17.9
Helping road accident victim	131	34.0
Preventing accident	14	3.6
I don't know	1	0.3
No response	115	29.9
When approaching the scene of an accident, what is the first step you should take		
Ensure safety of the accident scene and the casualty *	146	37.9
Call for help	120	31.2
Transport the victim to the hospital	110	28.6
No response	9	2.3
Removing helmet in case of head injury is a way of reducing injury		
Yes	252	65.5
No *	126	32.7
No response	7	1.8
Which is the first step when caring for bleeding wound		
Apply direct pressure with a clean dressing *	222	57.7
Apply pressure at the pressure point	81	21.0
Elevate injured part of the wound	69	17.9
No response	13	3.4
* Correct response		

Table 4.2b: Knowledge of First Aid among Commercial Motorcycle Riders (N=385)

Variables	Frequency (N)	Percentage (%)
It is advisable to give victim something to drink or eat		
Yes	254	66.0
No *	125	32.5
No response	6	1.5
Keeping bone in fixed position in case of broken bone prevents more damage		
True *	265	68.8
False	119	30.9
No response	1	0.3
Rinsing of skin abrasion with soap and water help to prevent infection		
Yes *	114	29.6
No	270	70.1
No response	1	0.3

* Correct response

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Table 4.3: Ways of stopping bleeding

Ways to stop bleeding	(N=607)**	
	Frequency (N)	Percentage (%)
Use of petrol or kerosene	144	23.7
Use of clean cloth or bandage	137	22.6
Elevate the injured part	24	4.0
Use of herbal drugs	23	3.8
Use of spirit and cotton wool	105	17.3
Take to hospital	70	11.5
Use of iodine	40	6.6
Call for help	20	3.3
Long press the bleeding area	17	2.8
Put sand on the wound	14	2.3
Use of water	13	2.1

**Multiple responses

Table 4.4: Ways of ensuring breathing an airway

(N=546)**

Ways of ensuring breathing an airway	Frequency (N)	Percentage (%)
Pour water on the victim	137	25.1
Blow air into the victim mouth	107	19.6
Pump or press chest of the victim	71	13.0
Fan the victim	66	12.1
Rush the victim to hospital	131	24.0
Reduce overcrowding	16	2.9
Remove airway obstruction	12	2.2
Use of defibrillator	6	1.1

**Multiple responses

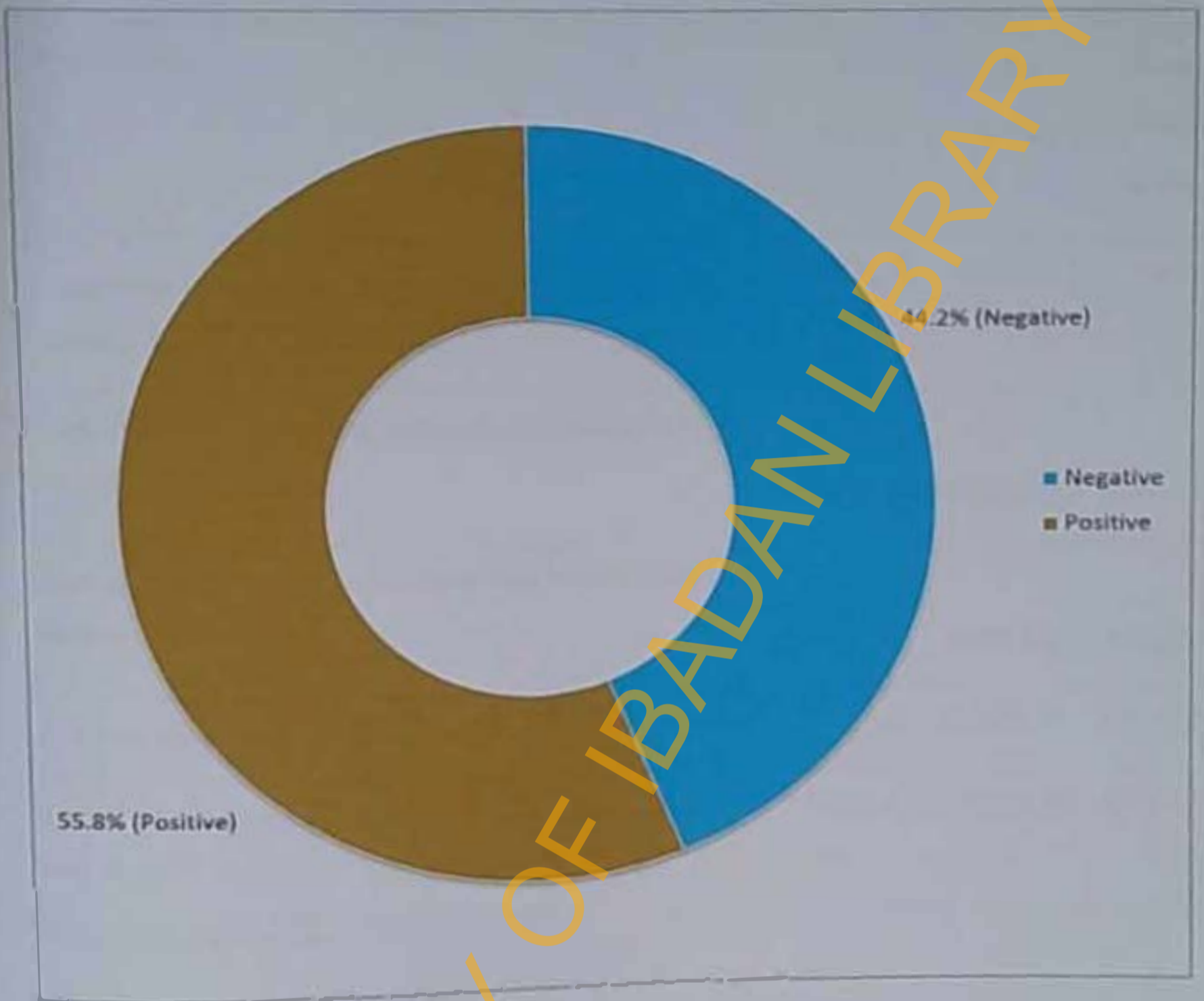
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4.3 Perception on First Aid among commercial motorcycle riders

This section sought to know the perception of First Aid among the commercial motorcycle riders. From this study, the respondents' perception about First Aid is graded into two. The mean of perception score is 7.9 ± 5.0 with more than half (55.8%) of the respondents having positive perception about the First Aid while the others had negative perception (Fig. 4.4).

Some (58.2%) of the respondents said they can apply First Aid because they believe they cannot make mistake while majority (62.6%) of the respondents also said that they are not afraid of contracting diseases transmissible by body fluids. More than half (53.2%) of the respondents said they are afraid of performing actions that could worsen injury or lead to death, almost sixty percent said they can cope at an accident scene while more than one quarter (31.2%) said they don't take responsibility because they assumed others will not do so (see Table 4.5).

(N=385)



Mean Perception score: 7.9 ± 5.0

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Table 4.5: Respondents perception on First Aid

Statement:	(N=385)		
	Yes N(%)	No N(%)	Don't Know N(%)
I can't apply First Aid because I don't want to make mistake *	144(37.4)	224(58.2)	17(4.4)
I am afraid of contracting diseases transmissible by body fluids*	118(30.6)	241(62.6)	26(6.8)
I am afraid of performing actions that worsen injury or lead to death*	205(53.2)	138(35.9)	42(10.9)
I cannot cope at an accident scene*	97(25.2)	223(57.9)	65(16.9)
I don't take responsibility because I assumed others will do so*	120(31.2)	190(49.3)	75(19.5)

* Negative Perception

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4.4 Respondents' Willingness to participate in First Aid Training

Willingness of the respondents to participate in First Aid training was examined in this section, majority (64.4%) of the respondents said they will like to undergo First Aid training (see Figure 4.5). Of the respondents that would like to be trained on First Aid, varying responses was gotten for the duration in which the training should last. While 29.4% of them wanted the training to be in two hours, 28.6% and 24.2% agreed that one and three hours respectively was enough for the training. Few (36.3%) of the respondents said they can afford between ₦500 and ₦1000 to pay for the training, 25.0% of the respondents said they can afford between ₦1000 and ₦2000 while a quarter of the respondents said they cannot afford any amount to pay for the training, this suggests that they want to be trained free of charge (see Table 4.6).

When asked a multiple response question about who the respondents would like to do the training for them, few (35.0%) said they prefer doing the training in a driving school, 25.8% said they prefer doing the training with the Federal Road Safety Corps while 21.8% said they prefer to have their own training with the medical personnel (see Table 4.7). When asked another multiple response question about the reason why the respondents would like to go for First Aid training, few (37.1%) said the reason is that they want to help people, 32.3% said the reason is because they have personal interest in it while 20.6% of the respondents said they feel it is their work to do (see Table 4.8).

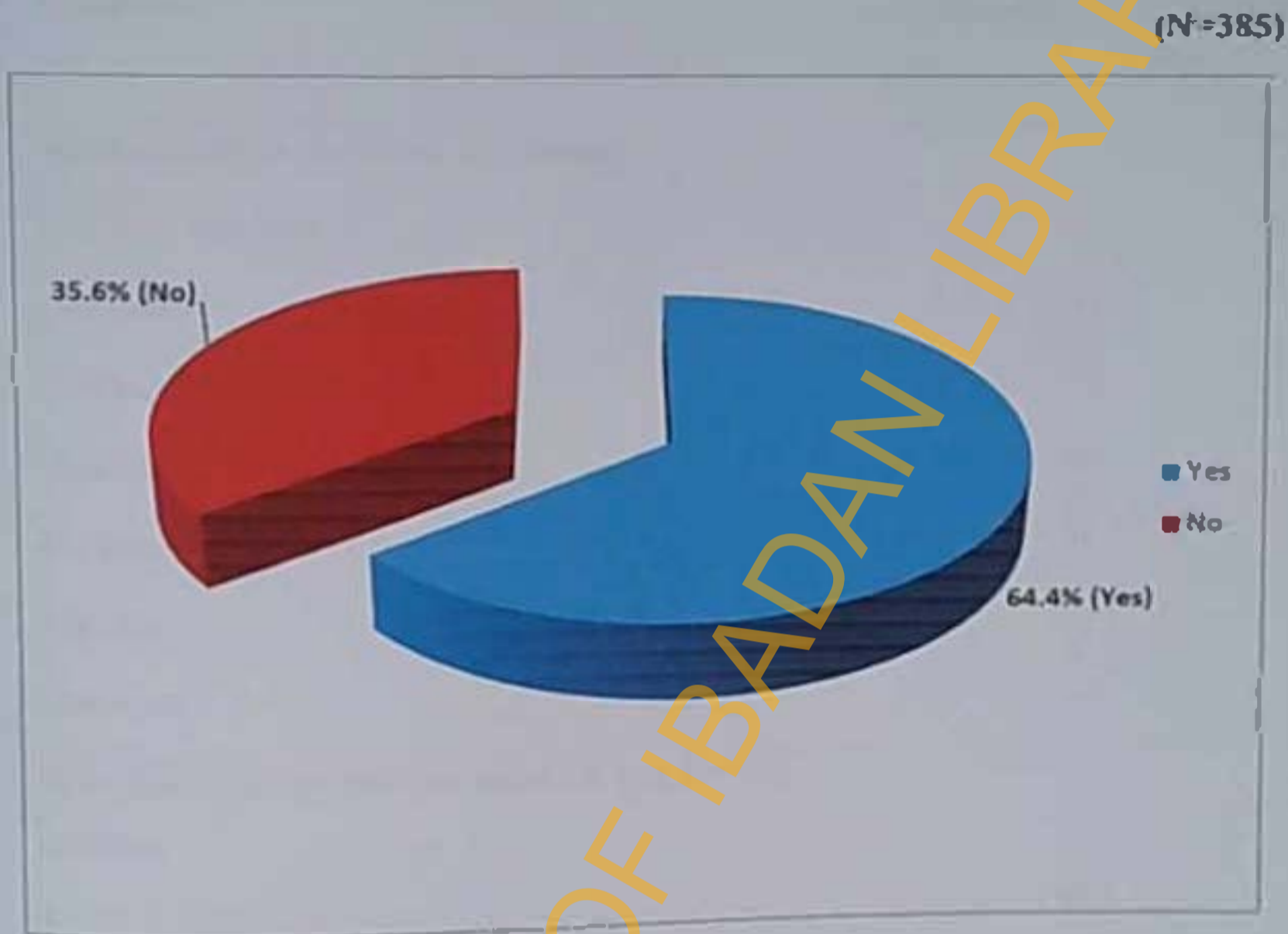


Figure 4.5: Respondents' willingness to undergo First Aid training.

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Table 4.6: Willingness to participate in First Aid Training

(N=248)

Variables	Frequency (N)	Percentage (%)
What should be duration of training?		
Less than one hour	8	3.3
One hour	71	28.6
Two hours	73	29.4
Three hours	60	24.2
Six hours	11	4.4
One day	23	9.3
One week	2	0.8
How much money can you afford to pay for the training		
₦500.00-₦1000.00	90	36.3
₦1000.00-₦2000.00	62	25.0
₦2000.00-₦3000.00	33	13.3
None	63	25.4

Table 4.6: Willingness to participate in First Aid Training

(N=248)

Variables	Frequency (N)	Percentage (%)
What should be duration of training?		
Less than one hour	8	3.3
One hour	71	28.6
Two hours	73	29.4
Three hours	60	24.2
Six hours	11	4.4
One day	23	9.3
One week	2	0.8
How much money can you afford to pay for the training		
₦500.00-₦1000.00	90	36.3
₦1000.00-₦2000.00	62	25.0
₦2000.00-₦3000.00	33	13.3
None	63	25.4

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Table 4.7: Respondents' preferred Trainer

Statement	Frequency (N)	Percentage (%)
(N=294)**		
Who would you like to train you?		
ACCOMORAN Association	2	0.7
Red Cross	49	16.7
Medical Personnel	64	21.8
Federal Road Safety Corps	76	25.8
Driving School	103	35.0

**Multiple response

Table 4.8: Reasons for going for First Aid Training

Variables	Frequency (N)	Percentage (%)
(N=310)**		
Government directive	13	4.2
Knowledge upgrade	18	5.8
My work	64	20.6
To help people	115	37.1
Personal interest	100	32.3

** Multiple response

4.5 Respondents personal experience of road traffic injuries

Respondents' personal experience is discussed in this section. Over half (66.2%) of the respondents claimed they have been involved in road traffic accident before (see Figure 4.6). Table 4.9a shows those that have been involved in accidents, many (68.2%) reported they have been injured in accidents up to 5 times while few (3.5%) said they have been injured in accidents for about 16 to 20 times. Majority (74.5%) claimed they received help or treatment before been taken to the hospital. Majority (80.5%) had witnessed a road traffic accident before while over half (55.2%) had witnessed road accidents up to 6 times before (see Table 4.9b).

The respondents were asked about the types of injuries they sustained during the accident, almost half (45.8%) reported skin abrasion, 20.6% of the respondents reported fracture, 14.7% of the respondents reported chest injury while 14.7% of the respondents claimed they sustain head injury (see Table 4.10). When asked about the first person that attended to the respondents after they sustained injury, few (35.4%) of the respondents said they were attended to by fellow motorcycle riders, 28.0% of the respondents said they were attended to by bystanders, 24.1% said nobody attended to them, while 10.5% said they were attended to by paramedics (see Table 4.11)



Figure 4.6: Respondents' personal experience of road traffic injuries.

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Table 4.9a: Respondents' personal experience of road traffic injuries

Variable	(N=255)	
	Frequency (N)	Percentage (%)
Number of times injured		
1-5	174	68.2
6-10	54	21.1
11-15	18	7.2
16-20	9	3.5
Do you receive any help or treatment before taken to the hospital?		
Yes	190	74.5
No	65	25.5

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Table 4.9b: Respondents' personal experience of road traffic injuries

Variables	(N = 385)	
	Frequency (N)	Percentage (%)
Have you witnessed a road traffic accident before?		
Yes	310	80.5
No	75	19.5
If yes, how many times did you witness it?		
1-6	171	55.2
7-12	68	21.9
13-18	31	10.0
19-24	27	8.7
25-30	13	4.2

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Table 4.10: Types of injury sustained during RTA

Variables	(N = 388)**	
	Frequency (N)	Percentage (%)
Head injury	57	14.7
Fracture	80	20.6
Skin abrasion	178	45.8
Chest injury	58	14.7
Eye	5	1.3
Face	1	0.3
Neck	2	0.5
Fainted	3	0.8
No injury	5	1.3

**Multiple responses

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Table 4.11: People who attended to respondents at accidents scene

Statement: Who attended to you?	(N = 353)**	
	Frequency (N)	Percentage (%)
Bystanders	99	28.0
Fellow motorcycle riders	125	35.4
Paramedics	37	10.5
Nobody	85	24.1
Federal Road Safety Corps	5	1.4
Police	2	0.6

**Multiple responses

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4.6 Respondents' Practice of First Aid

The results of respondents' practice of First Aid are discussed in this section. Out of the 385 respondents, 296 (76.9%) said they had once performed First Aid services on an injured victim (see Figure 4.7). Majority (70.6%) of those who have performed First Aid services said they helped to ensure safety of the accident scene while almost half (47.0%) had helped to contact emergency services or called for help. Almost half (44.9%) of the respondents said they provided First Aid along with other people, and (55.1%) helped to maintain clear airway for breathing. Only a few (23.3%) of the respondents had helped to stop bleeding. Majority (59.5%) stated that they helped to splint or protect limb injuries, while 33.1% of the respondents reported they have helped in washing wounds with soap to remove grease and dirt and 69.9% said they helped in transporting the injured persons to a hospital (see Table 4.12).

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(N = 385)

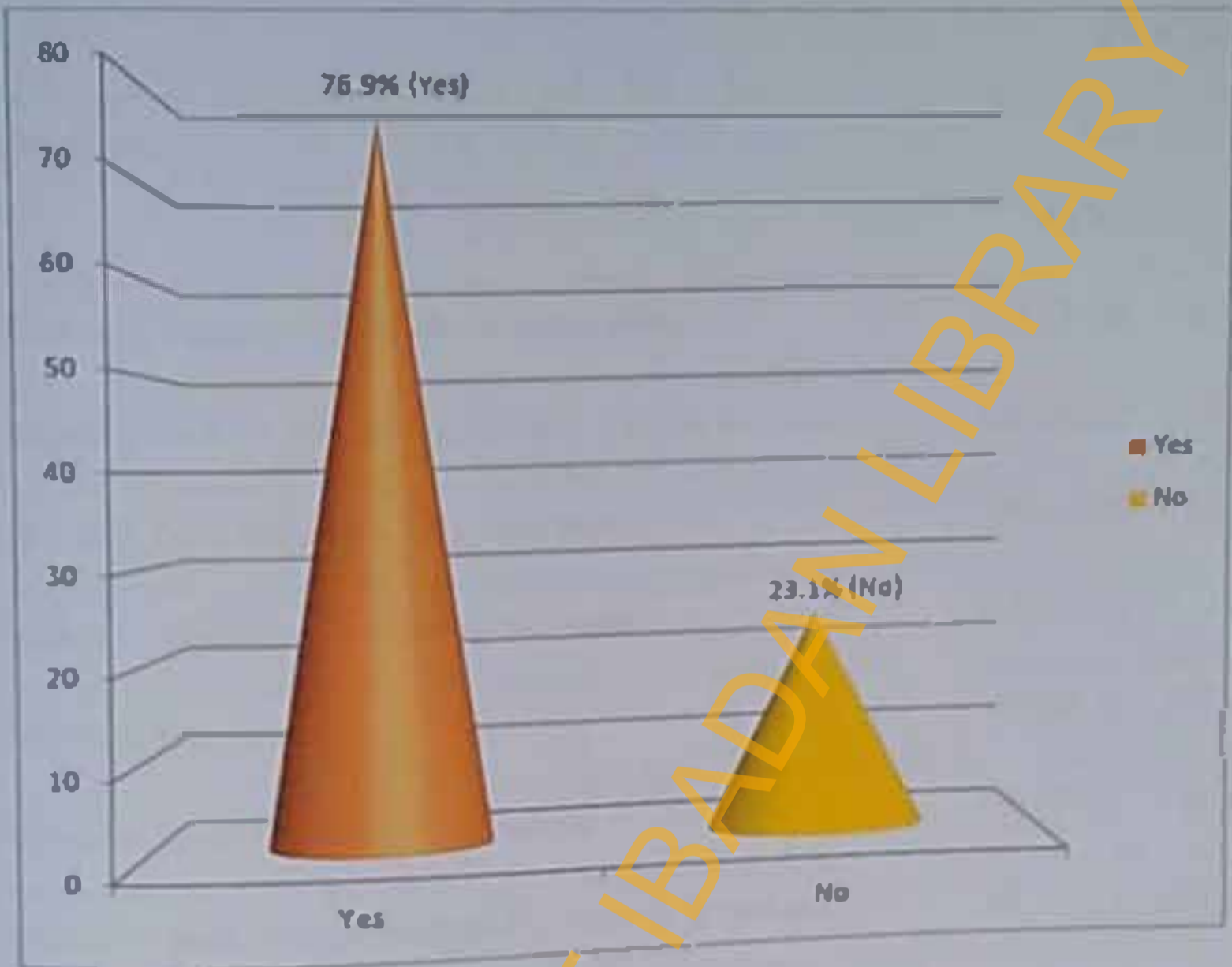


Figure 4.7: Respondents' practice of First Aid.

(N = 286)

Table 4.12: Respondents' Practice of First Aid

Statement:	(N = 296)	
	Yes N (%)	No N (%)
I helped to ensure safety of the accident scene	209 (70.6)	87 (29.4)
I helped to contact emergency services or called for help	139 (47.0)	157 (53.0)
I provided First Aid along with other people	133 (44.9)	163 (55.1)
I helped to maintain clear airway for breathing	163 (55.1)	133 (44.9)
I helped to stop bleeding	69 (23.3)	227 (76.7)
I helped to splint or protect limb injuries	176 (59.5)	120 (40.5)
I helped to wash wounds with soap to remove grease and dirt	98 (33.1)	198 (66.9)
I helped in transporting the injured person(s) to a hospital	207 (69.9)	89 (30.1)

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4.7 Factors Influencing Application of First Aid

Respondents gave various factors that could influence application of First Aid. About half (46.5%) said that they were afraid of making mistakes while giving First Aid treatment, while a few (34.0%) stated that the scene of accidents are often overcrowded while others (32.2%) believed they were prone to risk of infection. However, of those that ever had First Aid training, 19.1% stated that they could not remember the necessary First Aid steps while almost half (39.7%) of the respondents said that the scene of the accident was different from what they were taught during First Aid training. Majority (72.2%) were however concerned about the legal risks of assisting or rendering First Aid to RTA victims while 41.0% of the respondents claimed that the scene of accidents were not safe to render assistance (see Table 4.13a & b).

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Table 4.13a Factors that could Influence Application of First Aid

Statement	N = 385	
	Yes	No
	N (%)	N (%)
I was afraid I may make mistake(s)	179 (46.5)	206 (53.5)
The whole scene was overcrowded	131 (34.0)	254 (66.0)
I was concerned about the risk of infection	124 (32.2)	261 (67.8)
I was concerned about the legal risks	278 (72.2)	107 (27.8)
I did not believe the scene was safe for me to render assistance	158 (41.0)	227 (59.0)

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Table 4.13b Factors that could Influence Application of First Aid

Statement	(N=68)	
	Yes	No
	N (%)	N (%)
I could not remember the necessary First Aid steps	13 (19.1)	55 (80.9)
The scene was different from what I was taught in First Aid	27 (39.7)	41 (60.3)

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4.8 Test of Hypotheses

Hypothesis 1: There is no significant association between respondents' educational status and their knowledge of First Aid.

The result showed a significant association between respondents' educational status and their knowledge of First Aid ($p < 0.05$). Respondents' knowledge of First Aid increases with respect to their educational level. The null hypothesis was therefore rejected and the alternative that there is a significant association between respondents' educational status and their knowledge of First Aid was accepted.

Table 4.14 shows the association between respondents' level of education and their knowledge of First Aid using Chi Square statistic at 95 per cent confidence interval ($p < 0.05$).

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Table 4.14 Relationship between respondents' educational status and their knowledge of First Aid.

Educational Status	Knowledge of First Aid training			Total Freq. (%)	Chi-Square (Z ²)	P-Value
	Poor Freq. (%)	Fair Freq. (%)	Good Freq. (%)			
Informal	43 (86.0)	7 (14.0)	0 (0.0)	50 (100.0)	19.122**	0.000*
Arabic	14 (73.7)	5 (26.3)	0 (0.0)	19 (100.0)		
Primary	113 (89.7)	12 (9.5)	1 (0.8)	126 (100.0)		
Secondary	112 (81.1)	21 (15.3)	5 (3.6)	138 (100.0)		
Tertiary	23 (44.2)	26 (50.0)	3 (5.8)	52 (100.0)		

*significant

** Fisher's Exact Test

Hypothesis 2: There is no significant association between respondents' history of First Aid training and their knowledge of First Aid.

The result showed a significant association between respondents' history of First Aid training and their knowledge of First Aid ($p < 0.05$). Respondent who had received First Aid training shows a fair knowledge of First Aid. The null hypothesis was therefore rejected and the alternative that there is a significant association between respondents' history of First Aid training and their knowledge of First Aid was accepted.

Table 4.15 shows the association between respondents' history of First Aid training and their knowledge of First Aid using Chi Square statistic at 95 per cent confidence interval ($p < 0.05$).

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Table 4.15 Relationship between respondents' history of First Aid training and their knowledge of First Aid.

Ever had First Aid training	Knowledge of First Aid training			Total Freq. (%)	Chi-Square (χ^2)	P-Value
	Poor	Fair	Good			
	Freq. (%)	Freq. (%)	Freq. (%)			
Yes	18 (26.5)	44 (64.7)	6 (8.8)	68(100.0)	0.0139	0.000*
No	287 (90.5)	27 (8.5)	3 (1.0)	317(100.0)		

*significant df = 2

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Hypothesis 3: There is no significant association between the levels of education of respondents and their perception of First Aid.

The result (see Table 4.16) showed a significant association between respondents' educational status and their perception of First Aid using Chi Square statistic at 95 per cent confidence interval ($p < 0.05$). The null hypothesis was therefore rejected and the alternative that there is a significant association between the levels of education of respondents and their perception of First Aid.

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Table 4.16 Relationship between the levels of education of respondents and their perception of First Aid.

Educational Status	Perception of First Aid training		Total Freq. (%)	Chi-Square (%)	P-Value
	Poor Freq. (%)	Good Freq. (%)			
Informal	25(50.0)	25 (50.0)	50(100.0)	14.130	0.007*
Arabic	14 (73.7)	5 (26.3)	19(100.0)		
Primary	50 (39.7)	76 (60.3)	126 (100.0)		
Secondary	66 (47.8)	72 (52.2)	138 (100.0)		
Tertiary	15 (28.8)	37 (72.2)	52(100.0)		

* significant df = 4

Hypothesis 4: There is no significant association between respondents' history of First Aid training and their perception of First Aid.

The result showed a significant association between respondents' history of First Aid training and their perception of First Aid ($p < 0.05$). Respondent who had received First Aid training shows positive perception of First Aid. The null hypothesis was therefore rejected and the alternative that there is a significant association between respondents' history of First Aid training and their perception of First Aid was accepted.

Table 4.17 shows the association between respondents' history of First Aid training and their perception of First Aid using Chi Square statistic at 95 per cent confidence interval ($p < 0.05$).

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Table 4.17 Relationship between respondents' history of First Aid training and their knowledge of First Aid.

Ever had First Aid training	Perception of First Aid training		Total Freq. (%)	Chi-Square (%)	P-Value
	Poor Freq. (%)	Good Freq. (%)			
Yes	5 (7.4)	63 (92.6)	68 (100.0)	45.364	0.000*
No	165 (51.9)	152 (48.1)	317 (100.0)		

* significant df = 1

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Hypothesis 5: There is no significant association between the levels of education of respondents and their practice of First Aid on injured victim.

The result (see Table 4.18) showed significant association between respondents' educational status and their practice of First Aid on injured victim using Chi Square statistic at 95 per cent confidence interval ($p < 0.05$). The null hypothesis was therefore rejected and the alternative that there is a significant association between the levels of education of respondents and their practice of First Aid on injured victim.

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Table 4.18 Relationship between the levels of education of respondents and their practice of First Aid on injured victim

Educational Status	Do you perform any First Aid services on the injured victim		Total Freq. (%)	Chi-Square (%)	P-Value
	Yes Freq. (%)	No Freq. (%)			
Informal	34(68.0)	16(32.0)	50(100.0)	10.908	0.028*
Arabic	10(52.6)	9(47.4)	19(100.0)		
Primary	103(81.7)	23(18.3)	126(100.0)		
Secondary	110(79.6)	28(20.4)	138(100.0)		
Tertiary	39(75.0)	13(25.0)	52(100.0)		

* significant df = 4

Hypothesis 6: There is no significant association between respondents' history of First Aid training and their practice of First Aid on injured victim.

The result (see Table 4.19) showed a significant association between respondents' history of First Aid training and their practice of First Aid on injured victim using Chi Square statistic at 95 per cent confidence interval ($p < 0.05$). The null hypothesis was therefore rejected and the alternative that there is a significant association between respondents' history of First Aid training and their practice of First Aid on injured victim was accepted.

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Table 4.19 Relationship between respondents' history of First Aid training and their practice of First Aid on injured victim.

Ever had First Aid training	Do you perform any First Aid services on the injured victim		Total Freq. (%)	Chi-Square (Z ²)	P-Value
	Yes Freq. (%)	No Freq. (%)			
Yes	61(89.7)	7(10.3)	68(100.0)	7.640	0.0057*
No	235(74.1)	82(25.9)	317(100.0)		

* significant df = 1

Table 4.20: Regression results relating to poor Knowledge of respondents' on First Aid

Selected covariates	S.E.	DF	Sig.	OR	95.0% C.I. for OR							
					Lower	Upper						
Ever had First Aid training:	0.356	1	0.00	0.007	0.001	0.036						
Yes*												
No**												
Educational level:	0.356	1	0.00	1.18E8	4.45E7	3.14E8						
No formal education												
Arabic							0.594	1	0.00	1.03E8	3.20E7	3.29E8
Primary education*							1.177	1	0.02	16.782	2.669	103.679
Secondary education	0.774	1	0.35	2.067	0.454	9.418						
Tertiary education**		3										

* Significant

** Reference category

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CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Socio-demographic characteristics of the respondents

The ages of the respondents were between 16 to 65 years with almost half (47.3%) of them within 25-44 years age bracket. All respondents for this study were males which reflects what characterises the population of most motorcycle riders in Nigeria. This finding was in support of earlier findings of Ogunmodede, Adio, Ebijuwu, Oyetola & Akinola (2012); that age of CMR within 26-30 years represent 36.4% and are the highest. The study also shows that majority (37.1%) were holders of Senior Secondary School Certificate, with few (21.3%) of CMR having a riding license. Also, the finding of Adisa (2010) and Nakahara, Chadbunchachai, Ichinikawa, Tipsuntornsak & Wokai (2005) corroborate finding of this study in that commercial motorcyclists are more dominated by males than their female counterparts.

Most of them did not have a license to ride and only a few (17.7%) had ever been trained on First Aid. Although some of the respondents said they trained themselves to ride a motorcycle, others said they learnt it from their friends, relatives, boss, former employer and in driving school. This was in line with the study of Fadekemi and Vincent, (2007); that minority (4.0%) received formal training in motorcycling, while most of them were either self-trained (51.3%) or trained by friends (33%). The few respondents who had undergone training in First Aid reported that the training they had was conducted by the Federal Road Safety Corps (FRSC), Red Cross, medical personnel, relatives, driving school, National Youth Service Corps (NYSC) and Golden Neo - Life Diarnite (GNLD). This was in line with a study by Larsson et al (2002) which also found that few (25%) of the respondents had participated in some type of first-aid training.

5.2 Knowledge of First Aid among Commercial Motorcycle Riders

The commercial motorcycle riders gave different definition to First Aid, while a few (34.0%) understood it as helping road accident victim, some (17.9%) felt it is the first treatment given to an injured person and others (11.2%) defined it as the first treatment given to an injured person before taken to the hospital. Majority (79.2%) of CMRs had a

poor knowledge on First Aid. When respondents were asked what will be their first step on approach of an accident scene, 37.9% said they will ensure safety of the accident scene and that of the casualty, 31.2% said they will call for help and 28.6% said they will transport the victim to the hospital.

The study also revealed that 57.7% believed that applying direct pressure with a clean dressing is the first step to take when caring for a bleeding wound, however, 21.0% and 17.9% said it was putting pressure on the pressure point and elevating injured part of the wound respectively. In the findings of Utlikarsh et al (2013) many did not know the correct method of bleeding control and only half of the participants were aware of scene safety.

With regards to head injury, majority (65.5%) of the respondents felt that removing the helmet is a way of reducing the injury. A majority (66.0%) believed it is advisable to give accident victims something to drink or eat, however, most of them (70.1%) disagreed that rinsing of skin abrasion with soap and water help to prevent infection. Less than half (30.9%) of them also disagreed that keeping bone in fixed position in case of broken bone worsen injury. Various ways to stop bleeding was revealed. Majority of them mentioned the use of petrol and kerosene (23.7%), other ways mentioned were: use of clean cloth; elevating the injured part; use of herbal drugs; use of spirit and cotton wool; long press the bleeding area amongst others.

This study shows the significance of the level of education of a commercial motorcycle rider on their knowledge of First Aid, with those with secondary and tertiary education having better knowledge than their counterparts with only primary education. This is in line with a study by Larsson et al (2002) which also found that respondents with a higher level of education were more willing to participate in First Aid training, which may indicate that training may need to be more targeted towards persons with different levels of education. However, Jelinck et al (2001) found that with more training and more knowledge of correct procedures, people were more likely to perform basic life support in an event such as a RTA.

5.3 Perception on First Aid among commercial motorcycle riders

From the study, it was found that only a little over a half (55.8%) of the respondents had a positive perception on First Aid. Results showed that only a few said they could not apply

First Aid because of the fear of making mistakes or contracting diseases by body fluid. This finding was in support of earlier findings of (Arbon and Hayes, 2007; Hall, Wotton & Hutton, 2013; Peterson, Noland, Russell & Paradise, 2005; Kliegel, Scheincker, Sterz, Eisenburger, Holzer & Laggner, 2000; Thierbach, Pelinka, Reuter & Mauritz, 2004 and Sayre, Berg, Cave, Png, Potts & White, 2008) that fear of contracting infection was perceived as reason for not providing First Aid among the CMRs. Kliegel et al (2000) study showed that 26% of participants would be negatively influenced by fear of infection. Conversely, in Swor et al (2006) study none of the bystanders' unwillingness to perform CPR was related to concerns about infectious diseases.

Also, over half (57.9%) stated that they could cope with accident scenes and some (53.2%) were also afraid of performing actions that worsen injury or lead to death. This was also corroborated with the findings of (Arbon and Hayes, 2007; Hall, et al 2013; Peterson, et al 2005; Kliegel, et al 2000 and Thierbach, et al 2004). In Thierbach et al (2004), study stated their reluctance to assist a severely injured victim was related to a fear of doing something wrong, thereby further harming the victim. Kliegel et al (2000) showed that 50% of their target group and 100% of their control group rated fear as the primary reason for not performing CPR.

The study shows that those who had undergone training in riding a motorcycle and those with previous First Aid training, had a more positive perception than the others.

5.4 Respondents' Willingness to participate in First Aid Training

Findings from the study showed that majority (64.4%) of the respondents were willing to undergo First Aid training. Although most of them felt that the training should be between one and three hours, they were not willing to pay for the training. Those that have had previous training on First Aid were more willing to participate and pay for the training. This is in line with the findings of Cheung et al (2003) that the most common reason for not having First Aid training was lack of time, with only 12% of the sample group in the study with current First Aid training. Surprisingly, Cheung et al (2003) also found that those with First Aid training still had a level of knowledge that was far from satisfactory and this needs further investigation.

5.5 Respondents' personal experience of road traffic injuries

The study found that majority (80.5%) have witnessed road traffic accidents in the past, and 66.2% of them had been in it at least once in the past and 74.5% said they received help or treatment before been taken to the hospital. Various injuries were reported to be sustained during RTI by CMRs. They include skin abrasion, fracture, chest injury and others sustained head injury. The study also revealed that after injury some victims were not attended to by anyone, others however stated that fellow motorcycle riders, bystanders and paramedics attended to them after sustaining injury during RTAs. This result tallies with the report from a German study by Mauritz et al (2003), which highlighted that out of 2812 trauma situations, there was a bystander present in 57% (1602) of the cases. The bystander who assisted with First Aid was usually from the police force, a relative, a friend or a stranger.

5.6 Respondents' Practice of First Aid

The study also showed that First Aid services provided by CMRs during RTIs included ensuring safety of the accident scene, helped to contact emergency services or called for help, helping to maintain clear airway for breathing. Other services provided were stopping bleeding, helping to splint or protect limb injuries, washing wounds with soap to remove grease and dirt and also transporting the injured persons to a hospital. This assistance is however acceptable because studies such as Oxer (1999) and Mauritz et al (2003) studies show that First Aid intervention, whether the intervener is trained or not, has the capacity to save lives. Although they acknowledge that basic skills taught in First Aid courses have the capacity to enable a bystander to stop a major bleeding and help to maintain an airway; which may be all that is required until further medical assistance is available.

5.7 Factors Influencing Utilisation of First Aid

This study found out various factors that influence poor utilisation of First Aid services by CMRs. The factors include: fear of making mistakes while giving First Aid treatment; overcrowding at accident scenes and the risk of having an infection from the victims or scene of accident. However, it was also found that not knowing the basic First Aid steps to take and accident scene being different from what was learnt during First Aid training were factors that hindered CMRs from helping during RTIs. A lot of concern was also raised about the safety of accident scenes and the legal implication of assisting victims of

RTA/Is. This is similar to suggestion by Mabbott (2001) that two other reasons why people do not render assistance at RTAs: a perception of personal harm (such as contracting an infectious disease) and the perceived risk of litigation. In concurrence with Mabbott (2001), Eisenburger and Safar (1999) noted that fear of legal prosecution seems to make some bystanders and health professionals hesitate to act. Also, the fear and safety concerns of interveners were also explored by Jelinek et al (2001) who noted that a reluctance to intervene and provide First Aid predominantly resulted from fear of health and safety risks such as infection.

5.8 Implications of the finding for Health Promotion and Education

There is no doubt that the findings from this study will have far reaching influence on programme planning, implementation and evaluation of health promotion and education intervention in the area of First Aid. Health education is the combination of learning experiences designed to facilitate voluntary adaptation of behaviour conducive to health (Green and Kreuter, 1991). It is concerned with reinforcing or changing people's knowledge, attitude, perception and practice through effective time-tested strategies, with the aim of helping them to safe-guard their health. Health education strategies can therefore be used to bridge the gap between the health information acquired and health practices within the context of First Aid.

From the reviewed literatures, it is now an established fact that the prevalence of commercial motorcyclist in developing world like Nigeria is on the increase due to the advantage of been cheaper and easier to operate; faster on congested road, ply roads that might/could be too narrow or too rough for automobiles. This makes them present at almost every accident scene. Thus, result of this study provides baseline information for institutions and organisations and other professional bodies in the health sector that First Aid skills are of importance among commercial motorcycle riders.

Also, one of the key implications of the study is a need for advocacy for policy reforms, strategies and partnership among stakeholders such as the FIRSC, Police, Red Cross and ACCOMORAN to address needs and challenges among CMR that hindered the practice of First Aid. Public enlightenment through the use of the mass media is a useful health education strategy. Educational materials and resources including the use of radio and TV programmes are needed to raise people's awareness on its importance and to change their

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Also, one of the key implications of the study is a need for advocacy for policy reforms, strategies and partnership among stakeholders such as the NRS, Police, Red Cross and ACCOMORAN to address needs and challenges among CMTR that hindered the practice of First Aid. Public enlightenment through the use of the mass media is a useful health education strategy. Educational materials and resources including the use of radio and TV programmes are needed to raise people's awareness on its importance and to change their

perception and practice of First Aid so as to minimise injury and death prevention as a result of road accidents.

5.9 Conclusion

This study revealed that a very significant proportion of the respondents have poor knowledge of First Aid services necessary for victims of RTAs. Nevertheless, they were willing to be trained on the First Aid skills needed to save lives and prevent death of victims at accident scenes. Although, the fear of the legal implication of assisting victims was the major challenge hindering the provision of First Aid services, the fear of making mistakes and contracting an infection was also a concern to most of the respondents. Those with previous training and exposure to First Aid training have a more positive perception and attitude towards First Aid are likely to become more involved in providing care to road traffic accident victims.

Consequently, it is important that CMRs are encouraged to undertake First Aid training and receive exposure to First Aid knowledge and techniques regularly throughout their career. Notably the majority of people were willing to undertake First Aid training in order to assist their family and friends or as a prerequisite for work. There is potential for these positive motivating factors to be extended through public education campaigns and through industry links in order that people can be encouraged to support their society by becoming First Aid qualified.

The three key concerns about providing First Aid listed by participants were, fear of making a mistake, concern for safety and concern about litigation. These factors have been identified previously and continue to be a cause for concern among those who volunteer to intervene at RTAs (Jefinek et al. 2001; Mahtani 2001). First Aid training for road users will need to address these issues and provide clear guidance about the legal protection applicable to members of the public intervening to provide care and strategies to ensure their safety.

in addition, more flexible and accessible strategies for maintaining First Aid knowledge are required. A further useful strategy may be the development of public information campaigns that help to alleviate these fears and encourage people to intervene.

5.10 Recommendations

Based on the results of this study, the following recommendations were made:

1. The role of public enlightenment on First Aid should be explored using the commercial motorcycle riders association as a rallying point given the influence of the association on the riders.
2. Health education using media tools especially radio, aimed at highlighting the advantages/benefits of timely intervention using proper First Aid treatment in order to prevent complications of injuries and possible death during road traffic accidents.
3. It would be also be advisable to provide/improve on the available educational interventions that will help to bring about behavioural change as regards commercial motorcycle rider's knowledge, perception and attitude towards First Aid at road accidents scenes.
4. Institutions and organisations such as Federal Road Safety Commission (FRSC), Red Cross and Crescent should work with commercial motorcycle riders association for periodic training and retraining of its members on First Aid treatments required during road traffic accidents/injuries.
5. First Aid training and certification should be made mandatory for all licensed CMRs.
6. Lastly, the Nigerian government should provide employment opportunities for our teeming youths as this will go a long way in the reduction of number of youth who as a result of unemployment look to motorcycle riding business so as to reduce the number of road traffic accidents/injuries frequency among CMRs.

5.11 Suggestion for future studies

In future, similar studies should be done in other settings such as; commercial vehicle drivers and other road users to find out if similarities and/or differences exist in their knowledge and practice of First Aid training and find out factors that could hinder or enhance First Aid. This study should be seen as a significant contribution to knowledge

and practice of First Aid among commercial motorcycle riders during road traffic injuries or accidents.

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APPENDIX 1

QUESTIONNAIRE

Knowledge and Practices of First Aid among Commercial Motorcycle Riders in Ibadan North-East Local Government Area, Oyo State, Nigeria

Dear respondents,

I am..... a postgraduate student of the Department of Health Promotion and Education, University of Ibadan. I am conducting a research on Knowledge and Practices of First Aid among Commercial Motorcycle Riders in Ibadan North-East Local Government Area, Oyo State, Nigeria.

The information collected will help to provide understanding of this problem and how to address it. You have been selected to participate in an interview on Knowledge and Practices of First Aid among Commercial Motorcycle Riders. If you agree to participate, you are entitled to your own opinion and there is no right or wrong answer. We assure you that our interview with you will be kept secret and will be highly confidential.

The interview will not take too much of your time and I will appreciate your sincere response to the questions asked. Please, can we start now?

Date

Questionnaire ID:

SECTION ONE

A. Socio-Demographic Characteristics

Instruction: Please respond to the following question.

1. What is your age (in years) as at last birthday?
2. Sex: 1. Male 2. Female
3. Marital status: 1. Single 2. Married 3. Divorced 4. Widowed
4. Education status: 1. No formal education 2. Arabic education
3. Primary education 4. Secondary education 5. Tertiary education
5. How long have you been riding motorcycle?.....
1. Yes 2. No (If No go to Q8)
6. Did you undergo training to ride motorcycle? 1. Yes 2. No (If No go to Q8)
7. If yes, who trained you?
8. Do you have a certified license to ride motorcycle? 1. Yes 2. No (If No go to Q10)
9. If yes, how long have you been certified?
10. Have you ever had any First Aid training? 1. Yes 2. No (If No go to Q13)
11. If yes, what year did you have your last First Aid Training?
12. Who conducted your most recent First Aid training?

- a. Federal Road Safety Corps (FRSC) b. Red Cross c. Driving School
 d. Medical Personnel e. Others, please specify
13. How frequently do you service your motorcycle? a. Twice in a month b. Once in a month c. Once in three months d. Once in a year e. No fix time

SECTION TWO

B. Knowledge of First Aid among Commercial Motorcycle Riders

S/N	Statement on knowledge of First Aid among commercial motorcycle riders
14	What do you understand by First Aid? _____ _____
15	When approaching the scene of an accident, what is the first step you should take? a. Ensure safety of the accident scene and the casualty. b. Call for help. c. Transport the victims to the hospital
16	List two ways of stopping bleeding? _____ _____
17	Removing helmet in case of head injury is a way of reducing the injury sustained Yes <input type="checkbox"/>
18	Which is the first step when caring for bleeding wounds? a. Apply direct pressure with a clean or sterile dressing. b. Apply pressure at the pressure point. c. Elevate the injured part of the wound.
19	List two ways of ensuring breathing an airway? _____ _____
20	It is advisable to give victim something to drink or eat. Yes <input type="checkbox"/> No <input type="checkbox"/>
21	Keeping the bone in a fixed position in case of a broken bone prevents more damage. Yes <input type="checkbox"/> No <input type="checkbox"/>
22	Rinsing of skin abrasion spot with soap and water help to prevent infection Yes <input type="checkbox"/> No <input type="checkbox"/>

23	Score Obtained	
24	Total Score	24
25	Code	

C. Perception on First Aid

SN	Statement on Perception of First Aid	Yes	Don't know	No
26	I can't apply First Aid because I don't want to make mistake.			
27	I am afraid of contracting diseases transmissible by body fluids at the crash scene			
28	I am afraid of performing actions that worsen the injuries or may lead to the death of the victim			
29	I cannot cope at an accident scene			
30	I don't take responsibility because I assumed others will do so			

31	Score Obtained	
32	Total Score	15
33	Code	

C. Willingness to participate in First Aid training

34. Would you like to undergo First Aid training? Yes No (If No go to Q39)

35. Who would you like to train you?
 a. Federal Road Safety Corps (FRSC) b. Red Cross c. Driving School
 d. Medical personnel e. Others, please specify.....

36. What should be the duration of the training?
 a. One hour b. Two hours c. Three hours d. Others, please specify.....

37. How much money can you afford to pay for the training?
 a. #500 - #1000 b. #1000 - #2000 c. #2000 - #3000 d. None
 e. Others, please specify.....

38. Why will you like to go for First Aid training?
 a. To help people b. Personal interest c. My work d. Government directive
 e. Others, please specify.....

E. Personal experience of road traffic injuries

39. Have you been involved in a road traffic accident before? Yes No (If No go to Q40)

40. If yes, how many times?

41. What types of injury did you sustain? i. Head injury ii. Fracture iii. Skin abrasion
 iv. Chest injury v. Others (specify).....

42. Do you receive any help or treatment before taken to the hospital? Yes No

43. Who attended to you? i. Bystanders ii. Fellow motorcycle riders' iii. Paramedics iv. Nobody v. Others, please specify.....

44. Have you witnessed a road traffic accident before? 1. Yes 2. No (If No go to Q55)

45. If yes, how many times.....

F. Practice of First Aid

46. Do you perform any First Aid services on the injured victim? 1. Yes 2. No

(If No, go to Q55)

S/N	Statement on Practices of First Aid	Yes	No
47	I help to ensure safety of the accident scene.		
48	I contact the emergency services, or called for other forms of help.		
49	I provide First Aid along with other people		
50	I maintain clear airway for breathing		
51	I help to stop bleeding		
52	I help to splint or protect limb injuries		
53	I wash the wounds with soap to remove grease and dirt.		
54	I help in transporting the injured persons to a hospital		

G. Factors Influencing Poor Utilization of First Aid

S/N	Statement on factors influencing poor utilization of First Aid	Yes	No
55	I was afraid I may make a mistake		
56	The whole scene was overcrowded		
57	I was concerned about the risk of infection		
58	I could not remember the necessary First Aid steps		
59	The scene was different from what I was taught in First Aid		
60	I was concerned about the legal risks		
61	I did not believe the scene was safe for me to render assistance		

62. Others, please specify? _____

Thank you for participating in this discussion!

APPENDIX II

IWE IBEERE

Imon ati lilo obun ida abobo pajawiri laarin awon olokada ni Ijoba Ibile Iwo oorun Ariwa Ibadan Ipinle Oyo, Nigeria

Ire Olukopa,

Mo je akeko gboye digiri keji ni eka heci promoson ati edukeson. ni fasiti Ibadan Mo ngbe ise iwadi jade lori Imon ati lilo ohun idaabobo pajawiri laarin awon olokada ni Ijoba Ibile Iwo orun ariwa Ibadan, Ipinle Oyo Nijiria.

Alaye ti e ba se fun wa yio se iranlowo lati mon isoro ati bi a o se pese ona abayo si. A ti yan o lati je okan ninu awon ti a o fi oro wa lenu wo ninu ise iwadi yii.

Bi o ba faramon o ni anfaani so ero okan re ko si se idahun, ko si eyi to yege. kosi si eyi ti kunon. A fi dae loju pe alaye ati idahun ni a o fi paanun ti a o si se ti bon kele.

Ibere ko ni gba e ni asiko pupo, a o si mon tiri idahun otito. jowo, se a le bere bayi?

Deeti _____

Idanimọ ise iwadi _____

IPIN AKOKO

A. Sosio-Demographic Karaktarisiti:

Alaye: jowo dahun awon ibeere wanyi:

1. Kin ni ojo ori re ni ojo ibi tokoja (ni odun) _____
2. Nje okunrin labi obinrin (1) Okunrin (2) Obinrin
3. Nje o toko labi loya (1) N ko laya (2) inolaya (3) moti ko aya
- (4) Iyawo re ti ku
4. Bawo ni o se kan e (1) nko kawo rara (2) Mo lo ile kewu
- (3) oni pele kini (4) Ie iwe unipele keji (5) Iwe giga
5. Bawo lo si pe to oti n gun okada? _____
6. Nje o gba eko kankan lati maa gun okada (1) Beeni (2) Beelo

(Bi o ba je beko loo si ibeere 8)

7. Bi o ba je beeni Taani o ko e? _____
8. Nje oni iwe eri fun mimon okada wa (1) Beeni (2) Beeko (Bi o ba je beeko lo si Q10).
9. Bi o ba je beeni ati igba woni o ti gba iwe eri _____
10. Nje oti gba idadeko itoju pajawiri? (1) Beeni Beeko
(Bi o ba je beeko lo si Q 13).
11. Bi o ba je beeni ni odun wo ni o gba idadeko ti o gba keyin?

12. Taa ni o da o leko itoju pajawiri ti o gba keyin _____
(a) Awon eso oju ona (FRSC) (b) Alagbelebu pupa (c) Oludani leko bi ase n wa oko
(d) awon eleto ilera (e) elo miran ti o je so: _____
13. Bawo ni o se npe to ki o lo se ayewo alukuku re? (a) emeji ni osu kan (b) cekan losu (c) cekan oi osu meta (d) cekan lodun (e) igba ti o ba wumi.

IPIN IKIJI

ii. Inon lori itoju pajawiri laarin awon olokada

S/N	Oru inon oipa itoju pajawiri laarin awon olokada
14	Kini o ye o lori itoju pajawiri _____
15	Ti o ba de ibi ijamba, ki ni gese akoko ti o ma gbe? (a) No daa bobo ayika ijamba ati awon ti ijamba se (b) No pe fun iranlowo (c) No gbe awon to farapa lo si ile iwosan
16	So ona meji ti o le gba da eje _____
17	Bi bo koto kuro ni ori je ona ti a le fi din inra ijamba ki (1) Beeni <input type="checkbox"/> Beeko <input type="checkbox"/>
18	Kin ni ohun akoko lati se lati daa eje? (a) Te oju egbo na petu ase lwinu labi owu (b) Te oju egbo na (c) Obe eya am ti o n se eje faa si oke Baa ju ara yaku lo

19	So ona meji ti a le gba je ki minmin maa ja gaara
20	O se Pataki lati fun eni to farapa ni nkan mimun tabi jije (1) Beeni <input type="checkbox"/> (2) Beeko <input type="checkbox"/>
21	Fifi eguo to kan tabi ye si ipo to ya je ona lati deekun ipajara sinaju (1) Beeni <input type="checkbox"/> (2) Be
22	Fifo awo ara to ni farapa pelu ose ati omi n denon kokoro aifojuri (1) Beeni <input type="checkbox"/> (2) Beel

23	Maki to gba	
24	Apapo maki	
25	Kodu	

C. Ighagbo lori itoju pajawiri

S/N	Oro lori igba itoju pajawiri	Ibeeni	Nko mon	Beeko
26	Nko fe lo itoju pajawiri nitoni ako fe se asise			
27	Mo n beru arun to mon ran nipa omi ara nibi ijamba			
28	Mo n beru lati gbe igbese to le pa oni ijamba tara tabi to le je ja si iku			
29	Oju mo ko gba tabi ara mi ko ni bale ni ibi ijamba			
30	Nko ni daasi nitoni mo mon pe elomiran yio daa si			

31	Maaki to gba	
32	Apajo maaki to gba	
33	Kuodu	

D. Fife lowo si idanileko itoju pajawiri

34 Nje o jife lowo si idanileko itoju pajawiri (1) Beeni (2) Beeko

35 Taa ni o fe ko duo loko?

(a) Eso oju ona (IRSC) (b) Aloghelebu pupa (c) ile eko awako (d) awon eletu ilera (d) ona miran so _____

36. Bawo ni o se ro pe akoko idani leko se maan pe si
 (a) Wakati kan (b) wakati meji (c) wakati meta (d) igba yowu so _____
37. Iye wo ni o le san fiu idanileko?
 (a) N500-N1000 (b) N1000-N2000 (c) N2000-N3000 (d) rara (e) ona miran so _____
38. Ki lo de ti o fi fe lo fim idanileko itoju pajawiri
 (a) lati ran awon eniyan lowo (b) fiu anlaani ara mi (c) fiu ise mi (d) ase ijoba
 (e) Ona miran so _____

E. Iriri lori Ifarapa ninu Ijamba Oju ona

39. Nje o ti ni ijamba oju ona ni? (1) Beeni (2) Beeko (ti o ba je Beeko lo si Q. 44)
40. Ti o ba je Beeni bi igba melo? _____
41. Iru ifarapa wo ni o ni? (i) Ori (ii) kikan legun (iii) ifarapa (iv) lifaya gba
 (v) Ona miran so _____
42. Nje o gba itoju tabi iranlowo kan ki won to gbe o lo si ile-iwosan? (1) Beeni
 (2) Beeko
43. Tau lo ran o lowo? (i) eni ti n kojalo (ii) elokada egbe mi (iii) elcto ilera (iv) ko si enikan (v) clo miran so _____
44. Nje o ti ni ijamba oju ona ni? (1) Beeni (2) Beeko
45. Bi o ba je beeni bi igba melo _____

F. Lilo itoju pajawiri

46. Nje o sun eni ti o farapa ni itoju pajawiri (1) Beeni (2) Beeko (bi o ba je beeko lo so Q. 55)

S/N	Oro lori lilo itoju pajawiri	Beeni	Beeko
47	Mo se iranlowo lati daabobo ayika ibi ijamba		
48	Mo pe ipe pajawiri lati mon fiu iranlowo		
49	Mo se itoju pajawiri pelu awon eniyan yooku		

50	Mo se iranlowo fun imi to jangara		
51	Mo se iranlowo lati da eye		
52	Mo se iranlowo lati daabobo ifarapa eegun ese		
53	Mo fo oju apa pelu ose ati o mi, mo nu epo moto aii idoti kuro		
54	Mo se iranlowo lati gbe eni to farapa lo si ile iwosan		

G. Nkan to nfa aile lo itoju pajawiri dada

S/N	Oro lori ohun to nfa aile itoju pajawiri		
55	Mo o beru ki n ma se osise		
56	Ibi ijamba kunfun ero		
57	Mo beru ewu ati ko arun		
58	Nko le ranti itoju pajawiri to ye		
59	Ibi ijamba yalo si eyi ti won si ko mi ni ibi ikoni ni itoju pajawiri		
60	Mo n ro nipa ewu		
61	Mo ro pe ibi ijamba lewa fun mi lati se iranlowo pajawiri		

62. Onamiiran so _____
 E se fun lilowo si isc iwadi yi.



MINISTRY OF HEALTH
DEPARTMENT OF PLANNING, RESEARCH & STATISTICS DIVISION
PRIVATE MAIL BAG NO. 5027, OYO STATE OF NIGERIA

Your Ref. No.

All communications should be addressed to

The Honourable Commissioner, Quoting

Our Ref. No. AD 131/479/193

January, 2016

The Principal Investigator,
Department of Health Promotion and Education,
Faculty of Public Health,
College of Medicine,
University of Ibadan,
Ibadan.

Attention: Hassan Saheed

**ETHICAL APPROVAL FOR THE IMPLEMENTATION
OF YOUR RESEARCH PROPOSAL IN OYO STATE**

This is to acknowledge that your Research Proposal titled: "Knowledge and Practice of First Aid Among Commercial Motorcycle Riders in Ibadan North East Local Government Area" has been reviewed by the Oyo state Review Ethical Committees.

2. The committee has noted your compliance. In the light of this, I am pleased to convey to you the full approval by the committee for the implementation of the Research Proposal in Oyo State, Nigeria.

3. Please note that the National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations, in line with this, the Committee will monitor closely and follow up the implementation of the research study. However, the Ministry of Health would like to have a copy of the results and conclusions of findings as this will help in policy making in the health sector.

4. Wishing you all the best.

(Dr) Abbas Orotahan
Director, Planning, Research & Statistics
Secretary, Oyo State, Research Ethical Review Committee