

**KNOWLEDGE AND USE OF CRASH HELMET AMONG COMMERCIAL
MOTORCYCLIST IN IKOT EKPENE LOCAL GOVERNMENT AREA OF AKWA
IBOM STATE**

BY

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ABSTRACT

The study investigated knowledge and use of crash helmet among commercial motorcyclist in Ikot Ekpene local government area of Akwa Ibom State. The population of this study comprised all commercial motorcyclists operating at Ikot Ekpene Local Government area. The study adopted survey research design while calculated sample technique was used in selecting the respondents. The instrument used for data collection was an interview. The data collected were analyzed using percentage and tables based on the research questions. From the results of the data analysis, it was observed that the commercial motorcyclists in Ikot Ekpene Local Government Area are very much aware of the existence of crash helmets and are knowledgeable on the benefits of its use. Despite the high level of knowledge on crash helmet, there is low compliance to its use. The conclusion was that though the majority of respondents' motorcyclists know so much about crash helmet, they were not willing to use them owing to some undesirable effects on the users. Compliance to the effective use of crash helmets can only be achieved through legal enforcement policies. It was therefore recommended that there should be regular education of all motorcyclists in Ikot Ekpene Local Government Area.

INTRODUCTION

There have been global concern-over road traffic injuries. According to the World Health Organization, one quarter of injury fatalities are due to traffic crashes with 98% occurring in low income countries. Many countries in Africa including Nigeria are considered low and medium income countries. It is well documented that motorcyclist has led to the high proportion of fatalities in traffic crashes. In Nigeria, a dwindling economy and decay of infrastructure has led to the emergence of motorcycles for commercial transportation over the past two decades. During this, motorcyclists often were involved in various forms of traffic crashes. There has been an increase in the use of motorcycles for commercial public transportation in many cities and urban communities in Nigeria in recent years. Consequently, the rate of road traffic accident associated with commercial motorcycling has also been on the increase, with attendant rise in the number of injuries presenting at our trauma centers. This is not without associated socio-economic consequences to the injured, their families and the society.

It is necessary to use crash helmet because it is estimated that there are more than four (4) million motorcycles in the united state and they travel on estimated 8.8 billion miles each year, more than 58,000 riders and passengers are injured annually and 2,500 fatalities associated with motorcycle riding occur each year. Eighty five percent (85%) of fatalities and two third of hospital admission from motorcycles are the result of head injury. Crash helmets are very

effective in preventing head injury. Only eighteen (18) percent commercial motorcycles riders wear helmets all or most of the time. Adult riders who spend most of their time riding motorcycles are more likely to wear helmets; the very young people are rarely seen wearing head protection (Dean and Price Dimension in Community Health, 2005). Despite the prevailing road traffic accidents by motorcycles riders and the associated fatal head injuries, the motorcycle users in Ikot Ekpene local government of Akwa Ibom state are yet to realize the implication of not using crash helmets. As a contributive effort towards solving this identified health problem, the researcher has decided to carry out a study on the knowledge and use of crash helmet in Ikot Ekpene Local Area of Akwa Ibom State.

Statement of the problem

A helmet is a type of protective headgear by motorcycle riders. The primary goal of a motorcycle helmet is safety, to protect the riders head during impact, thus preventing head injury. Some helmets provide additional convenience, such as ventilation, face shields, ear protection.

The purpose of the study

1. To find out the level of knowledge of crash helmet among motorcycle riders in Ikot Ekpene Local Government Area.
2. To determine the proportion of motorcycle riders who use crash helmet in Ikot Ekpene Local Government Area of Akwa Ibom State.

Research Question

1. Is there any knowledge of crash helmet among motorcycle riders in Ikot Ekpene Local Government Area?
2. Are there motorcycle riders that use crash helmet in Ikot Ekpene?

LITERATURE REVIEW

Knowledge on Crash Helmet

The origin of crash helmet is traced back to an evidence on T. E. Lawrence (Known as Lawrence of Arabia) who had a crash on a Brough superior ss100 on a narrow road near his cottage at Wareham. This occurred due to a dip in the road which obstructed in view of two boys on a bicycle. Swerving to avoid them, Lawrence lost control and was thrown over the handlebars without wearing a helmet. Due to the head injuries he sustained, he had a coma and later died after six (6) days in hospital. Hugh Cairns – a neurosurgeon, who attended to him, after the death, began a long study on what he saw as unnecessary loss of life by motorcycle riders through head injury. Cairns research led to the production of crash helmet by both the military and civilian motorcyclists.

Level of Knowledge

Motorcycle helmet is an international product. Crash helmet is globally known as a safety device available in six (6) different types: Full face, Off-road, Flip-up, Open-Face, Half Helmet and Headwear. Crash helmet is also known to provide “risk” compensation to users, besides safety. Users have a feeling of total safety on the road and increase their moving speed. Majority of professional cyclists choose not to wear helmets, citing discomfort and claiming that helmets weight would put them at disadvantage. Irrespective of the type or made, helmets are known to be associated with some undesirable effects on the users. For this reason, crash helmets are known to be used on choice and not on force.

The Use of Crash Helmets among Commercial Motorcycle Riders

The issue of requiring motorcyclist to wear helmets has been an area of controversy for many years. By mid 1970s, states had laws requiring motorcycle riders and passengers to wear safety helmets. Today, motorcycles riders are required to wear helmet in most of the states. Recognizing that head injuries are the leading cause to death in motorcycles crashes and the helmet are effective in preventing fatalities (Dean and Price Dimension in Community Health, 2005). The importance of using crash helmets and higher vest help pedestrians and other traffic road users mark their presence on these roads (The Tide Tuesday April 22, 2008).

The first serious attempt by the Union Cyclist International to introduce compulsory helmet use in 1991 met strong opposition from cyclist. An attempt to enforce the rule at the 1991 Paris Nice race resulted in riders strike, forcing the union cyclist international to abandon the idea. While voluntary helmet use in professional rank rose to some what in the 1990s, the turning point in helmet policy was the March, 2003 death of Kazakn Andrei Kwilev. The new rules were introduced on May, 5, 2003 with the 2003 Giro D'italia being the first major race affected. The 2003 rule allowed for discarding the helmets during final climb of at least 5 kilometers in length, subsequent revisions made helmet use mandatory at all times (Wikipedia the free encyclopedia).

Factors that Leads to the Use of Crash Helmets among Commercial Motorcycle Riders:

The factors that leads to the use of crash helmets is that motorcycles have a higher risk factors that any other road users. The cyclist is exposed in such a way that any accident is potential fatal hence the recommendation for structure control (The Tide, Tuesday, April 22, 2008). The majority of fatalities following motorcycle related crashes are due to head injuries. It is well established that the use of crash helmet offers considerable protection from head injuries. Many of the motorcyclists took to Okada business as a last resort following unemployment and did not consider the job pleasant. This is because it is a hard hazardous and risky job. Motorcyclists are aware of the many risks involved in commercial motorcycle operations. Apart from uncertain skill, many motorcyclists are unaware of the road rule, ethnics and proper conduct on the road. Motorcyclist tend to be in dire speed in order to maximize daily financial returns, may be abusive, and often have little regard or consideration for other road users.

The reasons given for non-compliance with the use of crash helmets were hire cost and inconvenience feeling hot, sweating and messing up hairstyles. Poor driver compliance has a negative impact on passenger compliance. Nigerian women are particularly reluctant to wear crash helmets on the basis of maintaining their hairstyle or not wishing to remove their fashionable headgears. The use of illicit drugs such as marijuana, cocaine and heroin was common among the motorcyclist. The use of narcotics is not popular among the motorcyclist, probably because of cost. Good number of motorcyclist consume alcohol on a regular basis, sometimes even on the job. Alcohol use has been found to be associated with the occurrence of traffic crashes among motorcyclist (Pius et. el., August, 2009). Passengers that are sensitive enough may realize that the motorcycle driver has been taking alcohol when wind blows. It may not be early to restrain the consumption of alcohol by all motorcyclists in the city (The Tide Tuesday April 22, 2008)

Reasons for Non-Use of Crash Helmet

Against the backdrop, it could be explained that the reservations commercial motorcyclists and their customers have on crash helmets use may be associated with various

unexpressed irrational belief they have about the crash helmet. This may also make them feel rather unsafe using the crash helmet than not using it.

Some of the noted beliefs why the crash helmet cannot be used are:

- The crash helmet could be a channel for evil purpose
- Crash helmet could help bring curse on whoever uses it.
- Crash helmet is inconvenient
- Crash helmet is not appropriate for culture and it is strange.
- Crash helmet can possibly transmit diseases (David Adebayo, Oluwole, 2008).

Inadequacies of mass transportation system in the country have encouraged the use of motorcycles for commercial public transportation in virtually every city in Nigeria. Bad roads with attendant traffic congestion as well as ability of the motorcyclist to meander through traffic jam have encouraged the patronage of this mode of transportation as other means of transportation may not be able to access some roads. Ignorance perhaps can be said to have direct consequences on the productivity of these motorcyclist. Overloading a motorcycle causes instability and without helmet accidents are frequent and serious with head injuries. This is worsened by attempt by the commercial motorcyclists to enhance their daily income after extortion by security and traffic regulation agents, who turn a blind eye to their misdemeanors (Ngim and Udosen, 2007).

The Problems Resulting from the Non Use of Crash Helmets among Commercial Motorcyclists

The leading cause of intentionally injured death in the United State is motorcycle and motor vehicle accident more than 43,000 fatalities and 2.1 million disabling injury occur annually. These occurrences causes death, disabling and economic loss (Dean and Prince Dimensions in Community Health, 2005).

The Ways of Encouraging the Use of Crash Helmets among Commercial Motorcyclists

In order to effect a change, motorcyclist should do well to devote a percentage of their income to periodic re-education on safety consciousness. This may or may not include audio-visual education. People have confirmed that learning is life long process and that the day you stop learning is the day that death and rottenness set in (The Tide, Tuesday April 22, 2008). Sporadic and periodic spot checks and ban on alcohol abuse during working hours, outlawing of illiterate rides may be beneficial, as literates do not understand road signs. Road maintenance should be roads, which in most instances have been reduced to foot paths. The government has a part to play in terms of development of effective mass transportation as seen in developed countries of the World (Ngim and Udosen, 2007).

METHODS

Research Design

The design used for this research study is a survey.

Area of the Study

It is bounded in the North by Obot Akara, in the south by Abak town, in the East by Essien Udim Local Government and in the West by Uyo town.

Population of the Study

The study will include all commercial motorcyclists operating at Ikot Ekpene Local Government area whose exact population is not known, but estimated at about 1225 motorcyclists.

Sample and Sampling Technique

The commercial motorcyclist in Ikot Ekpene Local Government do not have a specific place of gathering or park for their passengers through which can be sampled. They are always on the move from either directions trying to catch up with time and financial expectations for a day. There is a possibility that one motorcyclist can be sampled twice or more repeated appearance. Therefore, a calculated sample technique was employed to determine the sample size.

Sample size Determination

The following formula is employed in determining the sample size.

$$N = (z/d)^2 pq$$

Where n = Sample Size to be determined

$$Z = 1.96 \text{ (Constant Value)}$$

$$D = 0.05$$

$$P = \text{Prevalence (50\%)} \text{ or } 0.5$$

$$Q = 1 - P$$

Substituting Numerical Value

$$N = \frac{1.96 \times 1.96 \times 0.5 (1-0.5)}{0.05 \times 0.05} \frac{1}{1}$$

$$N = \frac{3.8416 \times 0.25}{0.0025} \frac{1}{1}$$

$$N = \frac{3.8416 \times 0.25}{0.0025}$$

$$N = \frac{0.9604}{0.0025}$$

$$N = 384.16$$

Approx 384 (Sample Size)

Instrument for Data Collection

The instrument used for data collection was an interview. This is because most of the motorcyclist in the area cannot read or write. Information was collected at the spot and recorded accordingly. There was no personal data since the information was not needed in the analysis based on objectives.

Reliability of Instrument

The instrument – interview is suitable for data collection in this study with the following reasons:

1. The largest groups are always on the wheels and do not have much time to spare at the expense of their businesses.
2. Most motorcyclists in this area read and write
3. Instrument is collected at the spot within few seconds a motorcyclist stopping to either pick or drop a passenger

Data Analysis and Presentation

This chapter deals with the analysis of data collected using a survey research design. Findings were analyzed and presented using percentage and tables based on the research questions.

Research Question 1: Is there any knowledge of Crash Helmet among motorcycle riders in Ikot Ekpene Local Government Area?

Table 1 presents the distribution of commercial motorcycle on knowledge about crash helmet

S/N	QUESTIONNAIRE ITEMS	RESPONDENT			
		Yes	%	No	%
1	A motorcycle helmet is a protective head wear for motorcycles riders.	282	74%	98	26%
2	There are five different types of helmet for selective use	124	33%	256	67%
3	Crash helmet was introduced following the death of a motorcycle rider with head injury	168	44%	212	56%
4	Most motorcyclist on road traffic accident die of head injury due to lack of crash helmets	110	29%	270	71%
5	Crash helmets can protect head from injuries mental problem and death	250	66%	130	34%

The analysis in table 1 shows that 282 respondents representing 74% has knowledge on what a crash helmet is, while 98 respondents of 26% had no knowledge on crash helmet. Also, 124 motorcyclists representing 33% knew that crash helmets are of five different types in existence for selective uses, while 256 respondents of 67% did not know there were five different types of helmet. Item 3 presents that 168 respondents representing 44% knew whom crash helmet was introduced, contrary to the 212 respondents of 56% without the knowledge on how crash helmet was introduced. Item 4 and 5 presents 110 and 250 respondents representing 29% and 60% respectively on knowledge that head injuries to road traffic accidents can be prevented with the use of crash helmet.

Research Question 2: Are there motorcycle riders that use crash helmet in Ikot Ekpene Local Government Area?

Table 2 presents the distribution of motorcyclist on the use of crash helmet

S/N	QUESTIONNAIRE ITEMS	RESPONDENT			
		Yes	%	No	%
6	Do you have a crash helmet?		86%	55	14%
7	Have you been using the crash helmet regularly	55	14%	325	86%
8	Do you use crash helmet mostly only when it is enforced?	300	76%	80	21%
9	Do you put away your crash helmet because it corrupts with your head dressing style?	325	86%	55	14%
10	Is crash helmet an extra load on you while riding a motorcycle?	350	92%	30	8%

The analysis in table 2 shows that in item 6, 352 motorcyclist representing 86% were in possession of a crash helmet, while 55 respondents of 14% represents those who did not have crash helmet. Also, only 55 respondents representing 14% do use their helmets regularly. 300 respondents on 79% use their helmets only when it is enforced. 352 respondents with 80% of those who have helmets put away their helmets because helmets interrupt their head dressing

style. Lastly, 350 respondents 92% admitted that wearing of crash helmets means putting extra loads.

Discussion of Findings

In this course of this study, the followings findings were made:

The commercial motorcyclists in Ikot Ekpene Local Government Area are very much aware of the existence of crash helmets and are knowledgeable on the benefits of its use. Despite the high level of knowledge on crash helmet, there is low compliance to its use. Effective use of crash helmet by commercial motorcyclist can only be achieved through helmet enforcement.

Findings in support of research question one on the knowledge of motorcyclist on crash helmets shows that 74% of the respondents agreed that helmets are protective head wears. 44% of respondents agreed that motorcyclists die on road traffic accidents due to lack of crash helmet. 66% respondents agreed that crash helmet can protect from head injury and death. Research question two sorts to finds out the extent to which motorcyclists use crash helmet. Finding revealed that 86% of respondents have helmets. Only 14% of respondents to use their helmets regularly. 79% of the respondents use their crash helmet only on enforcement campaign. 86% of respondents keep away their helmet because it interrupts with their hair dressing style. 92% of total respondents see crash helmets as load and thus don't use them.

Conclusion

Based on the above discussions of the findings, it was concluded that that though the majority of respondents' motorcyclists know so much about crash helmet, they were not willing to use them owing to some undesirable effects on the users. Compliance to the effective use of crash helmets can only be achieved through legal enforcement policies.

Recommendation

The use of crash helmets if given the needed attention will prevent motorcyclists from head injuries, disabilities and death. Therefore, the researcher parts forward the following recommendations:

1. There should be regular education of all motorcyclists in Ikot Ekpene Local Government Area.
2. Orientation, workshops and seminars on the target group should be practiced.
3. Enacting and enforcing the law on the use of crash helmets should be employed.

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