



Full Length Research Paper

Road traffic injury immune delusion syndrome among commercial motorcycle riders in Ogbomoso, Nigeria

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This study aimed to determine the prevalence of road traffic injury immune delusion syndrome and its association with risky behaviours among commercial motorcycle riders in Ogbomoso, Nigeria. It was a community based cross sectional study. The instrument used in collecting data was a semi-structured interviewer administered questionnaire. Information collected included socio-demographic characteristics, risky behaviours and immunity to road traffic injury. Analysis was done using stata 12 software. The results were displayed in tables and cross tabulation of variables were also done. Chi-squared test was used to test for significant associations between categorical variables. A p-value of less than 0.05 was considered as statistically significant. A total of 111 commercial motorcyclists were recruited with a mean age of 37.0±10.2 years. More than one-third (43, 38.7%) of the riders believed that they are immune to road traffic injury and majority (37, 86.0%) of them that believed that they are immune cited prayer as their form of immunity. Though, nearly all the immune riders owned a crash helmet, nearly one-half (19, 44.2%) of them rarely use the crash helmet (p = 0.20). The immune riders had greater proportion of riders who usually receive phone calls (6, 14.0%) (p = 0.004) when riding or ride when it is raining (4, 9.3%) (p = 0.95). The non-immune riders had greater proportion (61, 91.0%) of riders who usually give safety gap (p = 0.01). Road traffic injury immune delusion syndrome is highly prevalent among commercial motorcycle riders in Ogbomoso and it is associated with risky behaviours like non use of crash helmet, riding when raining, receiving phone call when riding and not giving of safety gap.

Keywords: Risky behaviour, Motorcycle riders, Immunity, Crash helmet, Ogbomoso, Nigeria.

INTRODUCTION

Road traffic injuries constitute a major problem in developed and developing nations of the world but the incidence is more in developing countries (Agbonkhese

et al., 2013). More than 90% of deaths that result from road traffic injuries occur in low- and middle-income countries, even though these countries have approximately half of the world's vehicles (Agbonkhese et al., 2013). Road traffic injuries cause considerable economic losses to victims, their families, and to nations as a whole. These losses arise from the cost of treatment as well as reduced/lost productivity for those killed or

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disabled by their injuries (Adekunle et al., 2013).

The incidence of road traffic injuries got worse in Nigeria with the use of motorcycle as a means of public transportation. The rapid rate of urbanization in the face of inadequate means of transportation was one of the factors responsible for the use of motorcycles for public transportation (Oladipo, 2012). The high level of unemployment also made a lot of people to join the business of commercial motorcycling (Adekunle et al., 2013). This form of transportation was accepted by many people because of its ability to take passengers to their door steps, manoeuvre their way through traffic congestion and reach areas where other forms of commercial transportation cannot reach because of bad roads (Oladipo et al., 2012; Ngim and Udosen, 2007; Okojie et al., 2006; Yunusa et al., 2014). The government also was not left out in the spread of the use of motorcycles as a means of public transportation because in the process of empowering the unemployed youths some governors, local government chairmen including some members of the parliament distributed motorcycles to unemployed youths for them to use as a means of livelihood.

The causes of road traffic injuries have been grouped into human factors, vehicular conditions and the state of roads but there is an emergence of a new cause of accident in Nigeria called "road traffic injury immune delusion syndrome" (Daniel, 2011). This is a condition in which a driver relies on charms or supernatural power and this reliance gives them false sense of security and immunity against road traffic injuries. This syndrome is one of the factors responsible for the excessive speeding and recklessness displayed by many drivers on the highways in Nigeria (Daniel, 2011). Some driver beliefs that even if accident eventually occurs their charms will make them disappear from their vehicle unhurt. The commercial motorcycle riders in Nigeria are not exempted from this practice and this study examined the prevalence of road traffic injury immune delusion syndrome and its association with risky behaviours among commercial motorcycle riders in, Ogbomoso, Nigeria.

Study Area

Ogbomoso is a rapidly expanding city situated in Southwestern Nigeria, 100 km north of Ibadan, the capital of Oyo State. The population was estimated to be approximately 801,389 in 2006 (Nigeria NPC, 2015). The indigenous people belong to the Yoruba ethnic group whose primary vocation includes farming and trading. Christianity, Islam and Traditional religion are the main religion in Ogbomoso. Majority of the inhabitants are Christian while very few are traditional worshiper.

Ogbomoso is one of the main gateways to the northern region of Nigeria. The Ilorin-Ibadan trunk, a federal road that serves this purpose facilitates interstate transportation of goods and is bound by the Central Business District (CBD) in the city. The major means of intra city transportation is the commercial motorcycle and taxi. There are many motorcycle parks in Ogbomoso but they are grouped into north and south associations. Each of the associations meets once a month at a designated centre.

METHODOLOGY

This study was carried out in Ogbomoso, Oyo State, Nigeria and it was a community based, cross sectional descriptive study. Data was collected on the meeting day and at the meeting venue of each of the associations. Detail information was given to the members about the study, after which consent was obtained from them. Those that gave consent were randomized using simple random sampling technique and a total of 111 commercial motorcyclists were selected. The data for the northern association was collected on the 4th March, 2014 and a total of 65 commercial motorcyclists were selected while that of the southern association was collected on 8th April, 2014 and a total of 46 commercial motorcyclists were selected. Data collection was carried out using a semi-structured, interviewer administered questionnaire with the help of twenty student nurses in training who served as research assistants and had gone through a training session on how to administer the instrument. Information collected included socio-demographic characteristics, risky behaviours and immunity to road traffic injuries.

Analysis was done using stata 12 software. The results were displayed in tables. Cross tabulation of variables were also done. Chi-squared test was used to test for significant associations between categorical variables. A p-value of less than 0.05 was considered as statistically significant.

RESULTS

A total of 111 commercial motorcyclists participated in the study. The age of the respondents ranged from 25 to 60 years with a mean age of 37.0 ±10.2 years and the age group with the highest frequency (46, 41.4%) was 30-39 years. All the commercial motorcyclists were males and majority of them were married (96, 86.5%) while almost all of them were from the Yoruba ethnic group (110, 99.1%). Nearly all of them were Christians (100, 90.1%) and had at least secondary education (92, 82.9%) (Table 1).

Table 1. Socio-demographic characteristics

Variables	Freq (%)
Age group	
20 – 29	21 (18.9)
30 – 39	46 (41.4)
40 – 49	28 (25.2)
50 – 59	9 (8.2)
>= 60	7 (6.3)
Mean Age = 37.0 ± 10.2	
Educational Status	
No Formal Education	4 (3.6)
Primary	28 (25.2)
Secondary	64 (57.7)
Tertiary	15 (13.5)
Marital Status	
Single	15 (13.5)
Married	96 (86.5)
Ethnicity	
Yoruba	110 (99.1)
Others	1 (0.9)
Religion	
Christianity	100 (90.1)
Islam	11 (9.9)
Primary Occupation	
Okada Driver	17 (14.9)
Other Jobs	94 (85.1)

More than one-third (43, 38.7%) of the riders believed that they are immune to road traffic injury and majority (37, 86.0%) of them that believed that they are immune cited prayer as their form of immunity while 4.7% (2) cited charms as their form of immunity. Overwhelming majority (42, 97.7%) of them believed that if accident eventually occurs they will not be hurt while 2.3% (1) believed that they will disappear from the scene of the accident. Nearly one-half (18, 41.9%) of the riders who believed that they are immune belong to the age group 40-49 ($p = 0.75$) and more than two-third (35, 81.4%) of them were married ($p = 0.44$). More than one-half (28, 65.1%) of the immune riders had secondary school education ($p = 0.78$) and nearly all of them are Christian (39, 90.7%) ($p = 0.99$) and Yoruba (42, 97.7%) ($p = 0.45$). Overwhelming majority of immune riders owned a crash helmet (39, 90.7%) ($p = 0.93$) and did not indulge in

alcohol (36, 85.7%) intake before riding ($p = 0.91$) (Table 2).

Though, nearly all the immune riders owned a crash helmet, nearly one-half (19, 44.2%) of them rarely use the crash helmet ($p = 0.20$). The immune riders had greater proportion of riders who usually receive phone calls (6, 14.0%) when riding ($p = 0.004$) or ride when it is raining (4, 9.3%) ($p = 0.95$) than that of the non-immune while the non-immune riders had greater proportion of riders who engage in group riding (10, 14.9%) ($p = 0.64$) and stunting (12, 16.4%) ($p = 0.09$) than that of immune riders. The non-immune riders had greater proportion (61, 91.0%) of riders who usually give safety gap ($p = 0.01$) when riding while the immune riders had greater proportion of riders who believed that they are perfect riders (26, 60.5%) ($p = 0.27$).

Table 2. Socio-demographic variables, risky behaviours and immune delusion

Socio-demographic Variables	Immune Delusion		Chi Square	P value
	Yes (%)	No (%)		
Agegroup				
20 – 29	9 (20.9)	12 (17.6)	3.48	0.75
30 – 39	18 (41.9)	30 (44.1)		
40 – 49	13 (30.2)	15 (22.1)		
50 and above	3(7.0)	11 (16.2)		
Educational Status				
No Formal Education	1(2.3)	3 (4.5)	4.80	0.78
Primary	8 (18.6)	20 (29.9)		
Secondary	28 (65.1)	7 (52.2)		
Tertiary	6 (13.9)	9 (13.4)		
Marital Status				
Single	8 (18.6)	7(10.4)	1.65	0.44
Married	35 (81.4)	61 (89.6)		
Ethnicity				
Yoruba	42 (97.7)	68 (100.0)	1.60	0.45
Others	1 (2.3)	0 (0.0)		
Religion				
Christianity	39 (90.7)	61 (89.6)	0.15	0.99
Islam	4 (9.3)	7 (10.4)		
Drinking before riding				
Yes	8(14.3)	10(15.2)	0.19	0.91
No	36(85.7)	57(84.8)		
Crash Helmet				
Yes	39(90.7)	61(89.6)	0.15	0.93
No	4(9.3)	7(10.4)		
Frequency of helmet use				
Rarely	19(44.2)	20(29.9)	5.97	0.20
Occasionally	11(25.6)	31(44.8)		
Always	13(30.2)	17(25.4)		
Phone call while riding				
Yes	6(14.0)	5(6.0)	11.04	0.004
No	37(86.0)	63(94.0)		
Maximum Passenger				
One	10(23.3)	9(13.4)	6.99	0.54
Two and above	33(76.8)	59(86.6)		
Riding when raining				
Yes	4(9.3)	6(9.0)	0.10	0.95
No	39(90.7)	62(91.0)		
Group riding				
Yes	4(9.3)	10(14.9)	0.90	0.64
No	39(90.7)	58(85.1)		
Stunting				
Yes	7(16.3)	12(16.4)	4.89	0.09
No	36(83.7)	56(83.6)		
Safety gap				
Yes	39(90.7)	61(91.0)	9.18	0.01
No	4(9.3)	7(9.0)		
Perfect rider				
Yes	26(60.5)	33(47.8)	2.59	0.27
No	17(39.5)	35(52.2)		

DISCUSSION

The age of the commercial motorcycle riders who participated in this study ranged from 25 to 60 years with a mean age of 37.0 ± 10.2 years and the age group with the highest frequency was 30-39 years. This finding is not surprising because this mean age belongs to the most productive age group of the population and the people in this age group are usually willing to take any risk in order to make ends meet. In addition, they are also the group who has the energy demanded by this job because commercial motorcycling is quite demanding and requires expending a lot of energy. This finding is similar to what was found in Benin (Iribhogbe and Odai, 2009), Nigeria (36.4%) but different from what was found in Igbo-ora (Amaran et al., 2006) and Zaria (Alti-Muazu and Aliyu, 2008) where the mean age were less than 30 years. All the commercial motorcycle riders that participated in this study were all males. This finding is in agreement with the finding of most of the studies done in Nigeria (Adekunle et al., 2013; Oladipo et al., 2012; Iribhogbe and Odai, 2009; Oginni et al., 2007) and one of the reasons for this is that commercial motorcycling is regarded as a male job in this country and especially in Ogbomoso where the study was carried out. In addition, most females will not be able to meet up with the energy demanded by this occupation.

It was discovered from this study that majority (86.5%) of the commercial motorcyclists who participated in this study were married. This finding is not unexpected because many of the riders are engaging in commercial motorcycling because of their low income and the pressure to provide for the needs of their families. So they found commercial motorcycling an easy way out to make ends meet and this was also noted by Oni et al (Oni et al., 2011) in their study on motorcycle riders in Lagos.

Furthermore, most of the commercial motorcyclists (82.9%) that were educated did not have more than secondary school education and this explained the reason why they engage in commercial motorcycling because with their low level of education they will not be able to compete for better job opportunities. The level of education found in this study is similar to what Ogunmodede et al (Ogunmodede and Akangbe, 2013) and Yunusa et al (Yunusa et al., 2014) found in their studies in Oyo State and Kaduna State, Nigeria respectively.

Though, there is paucity of published literature on road traffic immune delusional syndrome making it difficult to compare our findings to what obtains in other part of the world it was discovered from this study that more than one-third (38.7%) of the riders believed that they are immune to road traffic injury and majority (86.0%) of them that believed that they are immune cited prayer as their form of immunity. This is not surprising because overwhelming majority of the riders are Christians

(90.1%) whose one of their teachings is divine protection through prayer and faith in Jesus Christ. The western part of Nigeria where the study was carried out is dominated by Christians and this may be one of the reasons why majority of the subjects were Christian. Many of them believe that no matter the state of the road as long as they pray and have faith in God they will never be involve in any road traffic injury. It is therefore not surprising that just 2.3% of the riders believed that they will disappear from the scene of the accident if it eventually occurs because only 4.7% cited charms as their form of immunity. Majority of people who put their trust in charms usually believe that they will disappear from their motorcycle unhurt if they eventually get involve in road traffic injury.

The fact that more than one-half (65.1%) of the immune riders had not more than secondary school education was not surprising because it has been established that low level of education is associated with risk taking on the road and this may be responsible for the finding in this study where more than one-half of the riders who claimed to be immune to road traffic injury had not more than secondary school education.

It was discovered from this study that the riders who believed that they were not immune to road traffic injury had the highest proportion (15.2%) of riders who take alcohol before riding and this finding is not surprising because many of the riders who claimed to be immune are Christians whose religion is against alcohol intake. It was therefore not unexpected when we discovered that the riders who believed that they are immune had the highest proportion (90.7%) of the riders who possessed crash helmet but rarely use the crash helmet. Many of them bought the crash helmet to avoid been sanctioned by the law enforcement agency but they rarely use it because of their perceived immunity to road traffic injuries.

In addition, the riders who believed that they are immune had the highest proportion (9.3%) of riders who ride when it is raining and that receive phone call (14.0%) when riding. These behaviours are actually not unexpected because of the perceived immunity many of the riders who belief that they are immune tends to engage in risky behaviours on the road. We also discovered that the riders who believed that they are immune had the highest proportion (4, 9.3%) of riders who do not usually give safety gap when riding and they also had highest proportion (60.5%) of riders who believed that they are perfect riders.

CONCLUSION

It was discovered from the study carried out that road traffic injury immune delusion syndrome is highly prevalent among commercial motorcycle riders in Ogbomoso and it is associated with risky behaviours like

non use of crash helmet, riding when raining, receiving phone call when riding and not giving of safety gap.

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