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COMMERCIAL TRICYCLE RIDERS' PERCEPTIONS OF PSYCHOACTIVE DRUG USE AND THE RISK OF ROAD TRAFFIC ACCIDENTS IN UYO, NIGERIA

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ABSTRACT

This article reports qualitative interview study on commercial tricycle riders' perceptions of psychoactive drug use and the risk of road traffic accidents in Nigeria. A purposive sampling method was used to recruit ninety-four (n=94) commercial tricycle riders in Uyo, Nigeria. Data were collected through in-depth, individual interviews. Inductive and thematic analyses were undertaken on the interview transcripts. The tricycle riders reported frequently consuming significant quantities of licit and illicit drugs, including alcohol, cannabis, cocaine and heroin. They attributed drug use to occupational hazards such as stress, fatigue and exhaustion. They recognized the effects of psychoactive drug use on tricycle riding, including impairment of vision, coordination and navigational abilities, and how these increase the risk of traffic accidents. Education, routine screening for drug use, curbing bribery and corruption among road safety officials, and curtailing availability of psychoactive drugs were recommended as measures for preventing drug use and road traffic accidents. Findings indicate significant overlap between lay and expert views on the risk factors for traffic accidents and counter-measures, highlighting the need to integrate lay perspectives into policy and action on road safety to improve outcomes.

Keywords: Commercial tricycle riders, psychoactive drugs, road traffic accidents

INTRODUCTION

Globally, road traffic accidents constitute a major, though poorly recognized, public health problem. They are

a leading cause of death and disability, and contribute significantly to the global burden of disease (Ameretunga, Hajar & Norton, 2006; Hazen & Ehiri, 2006; Nantulya & Reich, 2002). The Global Status

Report on Road Safety states that about 1.3 million people die from road traffic crashes annually, and another 50 million suffer severe injuries (World Health Organization, 2015). Ninety percent (90%) of road traffic deaths occur in low and middle-income countries (WHO, 2015), and the burden is fast increasing in these countries due to urbanization and rapid motorization (Jacobs, Aaron-Thomas & Astrop, 2000). Africa accounts for the highest rate of road traffic deaths in the world, estimated to be 26.6 per 100, 000 population (WHO, 2015). In 2000, the economic cost of road traffic accidents in Africa was estimated to be US\$3.7 billion, translating to approximately 1-2% of each country's gross national product (Jacobs, Aaron-Thomas, & Astrop, 2000). Pedestrians, passengers and motorcyclists bear a disproportionate burden of road traffic deaths in Africa, estimated to be forty three percent (43%) of all road traffic deaths (WHO, 2015).

The profile of road traffic deaths and injuries in developing countries should inform the development of domestic policies to improve prevention and control. Furthermore, policies should be based on local evidence and research, and tailored to the peculiar social, political and economic conditions of developing countries (Nantulya & Multi-Musiime, 2001). The importance of qualitative research for deepening understanding of the local context of road traffic accidents have been recognized (Ameretunga, Hajar, & Norton, 2006). But there is a glaring paucity of qualitative research on road traffic accidents in Africa, particularly those that interrogate the direct perspectives of transport workers on human risk factors such as driving under the influence of alcohol and other psychoactive drugs.

This article reports a qualitative study of commercial tricycle riders' views on psychoactive drug use and the risk of road traffic accidents in Nigeria. Our focus aligns with current global emphasis on local evidence for informing domestic policies and responses. The findings are significant in the context of global and national efforts to reduce road traffic accidents and to promote road safety, notably the UN Decade of Action for Road Safety (2011-2020). In this article, we show that occupational hazards are major determinants of psychoactive drug use among commercial tricycle riders. Drug use has negative effects on riding and increase the risk of traffic accidents. Our findings highlight the need to integrate lay views into policy and programs to improve outcomes.

The Nigerian context

Nigeria is the most populous country in Africa, with a population of over 190 million people. It is considered a 'motorising' country in terms of vehicle population and ownership (Trinca et. al., 1988). The WHO ranked road traffic accidents as the 11th leading cause of death and the 6th leading cause of disability adjusted life years (DALYs) in Nigeria in 2000 (WHO, 2004). Nigeria has the highest accident fatality rate in Africa at 33.7 per 100, 000 population (WHO, 2013). There is paucity of reliable data on accidents in Nigeria due to under-reporting and lack of efficient system of documentation and data retrieval (Asogwa, 1992). In 2016, the Federal Road Safety Commission (FRSC) reported 5, 053 fatalities, although the actual figures could be higher (ITF, 2017). The WHO estimates that the actual number of road fatalities could be up to 7 times higher than the figures reported by FRSC (WHO, 2015).

Adults and young adults account for a disproportionately high percentage (93%) of fatal accident victims. The implications of the loss of the productive segment of the population on a developing country like Nigeria are far reaching. Although road traffic crashes have complex and multi-factorial aetiology, human factors, either alone or in combination with other factors, contribute to about 95% of all crashes (Ayinde et al., 2018). This indicates the importance of studying human factors in road traffic accidents. Psychoactive drug use is an important human factor contributing to road traffic accidents. In 2016, about 1% of fatal crashes in Nigeria were due to drink-driving, while other psychoactive drugs accounted for an additional 0.5%. Together, they accounted for more fatal crashes than other human factors such as distraction (0.3%) and fatigue (1.3%) (ITF, 2017). Welcome and Pereverzev (2010) reported that approximately 50% of accidents on Nigerian roads are linked to alcohol consumption.

Studies have investigated psychoactive drug use among commercial transporters in Nigerian cities (Abikoye, 2012; Omolase et al., 2012; Iribhogbe & Odai, 2009; Makanjuola, Oyeleke & Akande, 2007; Abiona, Aloba & Fatoye, 2006). The bulk of these studies are social surveys, which provides data mostly on the prevalence of alcohol use among commercial transporters. Omolase et al. (2012) reported that 32.2% of their respondents admitted using alcohol before driving in the previous year. Iribhogbe and Odai (2009) reported regular alcohol use by 39.8% of commercial motorcycle riders in their study. Abiona, Aloba & Fatoye (2006) reported alcohol use prevalence rate of 67.2% among commercial transport workers in southwestern Nigeria. Lacking are qualitative

investigations of commercial transport workers' views on psychoactive drug use and the risk of road traffic accidents. As a result, road safety policies scarcely intersect with lay views on the determinants of road traffic accidents and how they may be addressed. But in addition to expert views, policies and interventions should also integrate the views of the target population in order to improve outcomes.

METHODS AND MATERIALS

The study setting

The study was conducted in Uyo, which doubles as the largest city and administrative capital of Akwa Ibom State in Nigeria. The city lies between latitudes 5° 05' North and longitude 8° East, within the equatorial rain forest belt. The city has grown tremendously within the past couple of decades, attracting people from different ethnic nationalities, particularly the three major ethnic groups in the country (Igbo, Hausa and Yoruba). According to figures from the 2006 national census, Uyo has a population of 309, 573 inhabitants. The estimated annual growth rate of the population is 3.2%. Spatial expansion is not matched by the development of infrastructure and provision of basic social amenities, including health-care, housing, electricity, sanitation, water, telecommunication and transportation. Commerce, services and white collar jobs, a variety of low-level office, administrative, or salaried positions mostly in the civil service, are the mainstay of the local economy. The city has a significant level of poverty. Available figures indicate that over a third of the population live below the national poverty line (FERT, 2004). A large segment of the population earns a

precarious living from various economic activities in a poorly regulated informal sector where the boundary between legal and illegal is blurred. In recent times, there has been a proliferation of commercial tricycle riding. This means of public transportation was introduced under the National Poverty Eradication Programme (NAPEP) of the Nigerian government to create employment for a teeming population of youths; especially in urban centres. Tricycles were introduced to replace motorcycle transportation because of the danger of head injury associated with the later. It is fast replacing automobiles as the major means of commercial transportation in cities, partly due to the high cost of spare parts and maintenance of automobile vehicles. A growing number of young men in Uyo are engaged in commercial transportation as a means of livelihood, and most of them ride tricycles (popularly known as 'Keke').

Participants and Interviews

Qualitative data were collected through in-depth, individual interviews. Interviews involved open-ended questions, which were revised in the course of data collection and analysis (Glaser, 1978). Recruitment and data collection lasted for four months (from April to August, 2016). A non-systematic survey was adopted since the study is qualitative by design and did not involve a specific and specified field location other than Uyo city. The participants were recruited from across the city through purposive sampling. The researchers located one hundred and three (103) commercial tricycle riders in different parts of the city, explained the purpose of the study to them, assured them of confidentiality and requested their voluntary participation in the study.

Nine (9) tricycle riders refused to participate in the study, bringing the sample size to ninety-four ($n=94$). They were all male between 24 and 67 years of age. They were single (31%), married (57%) and divorced or separated (11%). Majority had only secondary education (49%). Only a small proportion had completed tertiary education (11%). The average duration of engagement in commercial tricycle riding was three (3) years. Each participant gave verbal consent to participate in the study. Interviews elicited the participants' views on psychoactive drug use among commercial tricycle riders, including types, quantity and frequency of drug use, drug use initiation, determinants of drug use, effects of drugs use on riding, the risk of traffic accidents and counter-measures. Interviews were conducted in English and recorded with a digital device with the consent of each interviewee. The duration of interviews was between 45 minutes and 1 hour. Recorded interviews were transcribed by paid research assistants and analyzed by the principal researcher.

Data analysis

The transcripts were subjected to thematic and inductive coding and analysis. Data coding was undertaken based on prior themes reflected in the interview guide and inductive codes generated through immersion in the transcripts (Braun & Clarke, 2006; Borkan, 1999). Codes were based on key concepts and descriptions, particularly those emerging from immersion in the transcripts (O'Leary, 2014). The deductively and inductively developed themes formed the basis of data coding, which was done manually and involved assigning primary and secondary codes to relevant portions of each

interview transcript (Campbell et. al., 2013). The coding process was repeated many times and some of the codes were revised while others were condensed or expanded (Braun & Clarke, 2006). To enhance inter-coder reliability and validity of findings, two experts in qualitative research independently read samples of the interview transcripts and assessed the coding scheme (Syed & Nelson, 2015). The authors discussed the assessments, including discrepancies and confusions in the codes. As a result, unreliable codes were dropped or merged, while definitions of the codes were clarified. This process continued until a good measure of reliability was achieved.

RESULTS

Psychoactive drug use among commercial tricycle riders

Interview data shows that the use of psychoactive drugs is common among commercial tricycle riders in the city. The bulk of participants said that many commercial tricycle riders regularly consume psychoactive drugs while driving. Those who said psychoactive drug use was uncommon were in the minority (11.6%). None of the participants outrightly denied the use of psychoactive drugs among commercial tricycle riders. Asked to provide a rough estimate of the proportion of tricycle riders who take drugs while driving, the participants said it ranged from 60% to 85%. The bulk of participants (82%) reported personal use of psychoactive drugs while riding and most (67%) use regularly. A participant stated:

If you know anything about transport workers, you should know that they

use drugs. They use them a lot. It is not only tanker drivers and long distance drivers who take drugs. Keke riders (tricycle riders) also use drugs. They use it every time they go out on the road.

Another participant opined:

Many of us (tricycle riders) take hard drugs. I will not tell you lie, I use drugs. Some people will tell you they don't use. It is not true. Most of the people you see driving Keke use drugs. Only few Keke riders can truly say they don't use drugs.

Commercial tricycle operators consume a variety of licit and illicit psychoactive drugs. The most commonly used drug was alcohol. The different beverages used include commercial beer, palm wine, and imported and locally distilled gin (*ogogoro*). Participants also reported the increasing popularity of caffeinated drinks, popularly known as 'energy drinks', among transport workers. We learnt that commercial tricycle riders consume caffeinated drinks to replenish energy and stamina depleted in the course of tricycle riding. They also consume tobacco, cannabis (*Ikpo*), crack cocaine (*Charlie*), heroin (*Thailand*) and pharmaceuticals, including tramadol, rohypnol and codeine. Cannabis is either smoked or soaked in local gin for drinking. Like the energy drinks, cannabis is said to provide needed strength and stamina for the energy-sapping work of tricycle riding. A participant said:

Transport workers take all kinds of things: ikpo (cannabis), cigarette, cocaine and beer. There is no hard drug that transport workers do not use.

Some people will tell you they do not use these drugs. The reason they tell such lie is fear. The truth is that most of us take these drugs.

Interview accounts reveal the determinants of psychoactive drug use among commercial tricycle riders. Many participants said that they were influenced by fellow tricycle riders to start using psychoactive drugs. Occupational hazards such as fatigue, stress and exhaustion were the major reasons tricycle riders use psychoactive drugs. Participants reported that they use drugs to counteract stress and replenish stamina. Stress and exhaustion are common problems among transport workers (Bekibele et al., 2007). Interview accounts also show that psychoactive drugs are often recommended to new entrants into the occupation as remedies for stress and fatigue. A participant stated:

When I entered this work (commercial tricycle riding) newly, I complained to some friends about tiredness. Many of them encouraged me to take cannabis. They said that it will give me strength. I started from using cannabis. Latter I moved to other drugs like cocaine.

Drug use, tricycle riding and the risk of accident

The participants recognized that consumption of psychoactive drugs is a risk factor for road traffic accident. They stated that the use of psychoactive drugs contributes to accidents because of the negative effect they have on driving behaviour. Asked what these effects were, most participants pointed out that psychoactive drug affect the tricycle rider's ability to navigate the road effectively. They stated

that drugs alter the normal functioning of the human body which in turn affects the rider's ability to ride well on the road. We were told:

Drugs affect transport workers when they are on the road. What I mean is that drugs affect how you ride on the road. When you take drugs and ride Keke on the road, you will not be able to ride very well. It will be difficult to ride because at that time you are controlled by drugs. You are not your normal self.

Another participant added:

The issue is that drugs change the way people act. The way you act normally (i.e without drugs) is different from the way you act after you have taken drugs. It is the same thing with riding. You cannot ride normally. You are not normal because of the drugs you took.

The above comments capture participants' view of the physiological effects of psychoactive drugs. They further noted that drugs, particularly alcohol, induce various physiological changes, including weakness, shivering, trepidation and nervousness, which compromise the ability to ride. Participants told us that under such conditions the likelihood of being involved in an accident on the road was very high since the rider will not be able to navigate traffic effectively. A participant stated:

Drinking can make your body weak. You will notice that your hand will be shaking while you are holding the steering. If you ride when you

are feeling like that, you are going to have accident. Nobody should be allowed to ride Keke under that condition.

Accounts also highlight the effect of drugs on vision. Participants opined that psychoactive drugs affect a rider's ability to visualize the road and to ride well. They pointed out that accurate vision of the road is essential to successful riding; therefore, a rider whose vision is impaired is at grave risk of being involved in an accident. Commenting from personal experiences, some of the participants told us that when a rider is under the influence of psychoactive drugs he may not clearly see road signs, pedestrians or on-coming vehicles. This was said to lead to accidents since the rider will not be able to navigate effectively under this condition. A participant opined:

If you take drugs and go out on the road, you will find it difficult to see the road. When I take drugs and ride out, I find it difficult to see bends on the road or see other vehicles that are coming towards me. When it happens like that you can collide with another vehicle or hit those who go on foot.

It was also pointed out that drugs affect the rider's cognition and coordination. Participants told us that tricycle riding is a delicate activity that requires utmost concentration. They said that the rider must constantly calculate his moves to ensure that he is involved in an accident. Psychoactive drugs compromise the rider's ability to think and calculate his moves while riding. Participants opined that when the capacity to calculate and navigate is

compromised by the use of psychoactive drugs, the rider is at risk of being involved in traffic accident. A participant stated:

There is no way you take drugs and ride on the road and it will not affect your riding. That is why they are called drugs. They affect human beings. When you take drugs and ride, you will not be able to think and analyse things very well because of the way the drugs affects your mind. You may make wrong moves that can lead to accident on the road.

Asked which drug had the strongest effect on a rider, the participants rated alcohol (68%) and cannabis (49%) as the most potent. They also observed that the effect of drugs depended on the quantity taken ('if you take a little, it may not give you trouble, but taking much is dangerous'). Consumption of significant quantities of psychoactive drugs increases the risk of traffic accident. A sizeable proportion of the participants (21%) reported that they had been involved in an accident in the past because of driving under the influence of psychoactive drugs, mostly alcohol. A participant narrated:

Once I sat with some friends and took some bottles of beer. When I stood up I felt the effect in my body so I decided to ride home and rest. On the way I lost control and had accident. I thank God that it was not a serious one.

Curtailling psychoactive drug use and road traffic accidents

Interviews also elicited participants' views on ways of tackling drug use and road accidents involving commercial

transport workers. The participants were verbose about the importance of taking measures to reduce psychoactive drug use among commercial transport workers. They variously pointed out that this was the most effective step towards preventing traffic accidents. They were confident that consumption of psychoactive drugs is a major risk factor for traffic accidents and that prevention of drug use by transport workers, among other measures, would result in reduction in the rate of road traffic accidents. A participant commented:

Drug use by transport workers is one of the reasons why we have many accidents on the road. Something should be done about it. Transport workers, like those of us who ride Keke (tri-cycle), should not be allowed to take hard drugs and drive. If that is done, accidents on our roads will reduce.

Another participant stated:

Government should stop the use of drugs by transport workers. They should do something about it. The use of hard drugs is a major problem. Transport workers should not be allowed to take hard drugs. That is one thing we should do to prevent accidents.

Participants stated that ignorance of the dangers of psychoactive drugs was a major reason transport workers use them. They said that the use of drugs by transport workers could be prevented by educating them on the negative consequences of drug use on their health and well-being and those of others, and that

emphasis should be placed on the risk of traffic accidents. They further stated that transport workers should be encouraged to abstain from the use of drugs or to reduce the quantity and frequency of drug use, especially when they are on the road. A participant stated:

Transport workers should be educated on the dangers of drugs to their health and the consequences of driving under the influence of drugs. Most transport workers do not know the dangers of using drugs. That is why they continue using them. If they are told, some of them will change their behaviour.

Another participant expressed confidence in the power of increased knowledge to produce behavioural change. He stated:

The first thing is to let transport workers know that using drugs while driving can result in accident on the road. There is a saying that 'knowledge is power'. It means that when you know something, you can use that knowledge for your benefit.

Participants also recommended that transport workers be screened regularly for drug use, and those found to be driving under the influence of drugs should be punished. They reported that officers of the Federal Road Safety Commission (FRSC) do carry out random screening for drug use on transport workers, but they felt it should be done more regularly since transport workers use drugs regularly. Enforcement of laws on driving under the influence of alcohol and other drugs was said to be compromised by bribery and

corruption. Participants intimated that road safety officials habitually collect bribes from offenders and allow them to go unpunished. They said that such practices encouraged violation of traffic laws. A participant narrated:

I have seen road safety people collect money from drivers and they allowed them to go. Such practices will encourage transport workers to continue to take drugs and cause accidents on the road. Road safety should do their work and keep people who use drugs from driving on the road.

Many participants expressed the view that the availability of psychoactive drugs contributed to their consumption by transport workers. They said drugs are widely available on the streets and that this was a contributory factor to widespread use. They suggested that the availability of psychoactive drugs should be controlled. They called on law enforcement agencies such as the Nigeria Police Force (NPF) and the National Drug Law Enforcement (NDLEA) to adopt effective measures to curtail availability of psychoactive drugs on the streets. The expressed optimism that measures to reduce the availability and consumption of psychoactive drugs will have a positive impact on the prevalence of road traffic accidents.

DISCUSSION

This study explored the views of commercial tricycle riders on psychoactive drug use and the risk of road traffic accidents. Findings indicate a significant level of drug use among commercial tricycle

riders. This resonates with the existing literature on road traffic accidents in Nigeria. Previous studies reported the use of alcohol among commercial transport workers (Abikoye, 2012; Omolase et al., 2012; Iribhogbe & Odai, 2009; Makanjuola, Oyeleke & Akande, 2007; Abiona, Aloba & Fatoye, 2006). A body of international literature identified psychoactive drug use as a risk factor for fatal road traffic accidents, with emphasis on the possible impairment of the driver (Barbone et al., 1998; Lowenstein & Koziol-McLain, 2001; Drummer et al., 2004; Holmgren et al., 2007; Woratanarat et al., 2009). Driving under the influence of drugs elevates the risk of involvement in road crash, crash severity and severity of crash injuries (Pereden, Scurfield, Sleet et al., 2004). Exploring psychoactive drug use and the risk of road traffic accidents among commercial tricycle riders is the contribution of our study to the existing literature, which mostly report findings from motorcyclists and bus drivers. Our findings suggest that drug use pervades all sectors of road transport workers and should be given priority in road safety policy.

The tricycle riders in our study reported frequent consumption of significant quantities of different types of licit and illicit psychoactive drugs, most of which have documented negative impacts on driving behaviour. Alcohol is a well documented contributor to road traffic accidents. It is recognized as a principal risk factor for road crashes. Alcohol use is associated with increased risk of accident involvement and increased risk of responsibility for the accident (Robertson & Drummer, 1994; Longo et al., 2000). Other substances such as cannabis, caffeine and opioids have negative impacts on driving ability, especially when vast quantities are

consumed or when they are used in combination (e.g cannabis and alcohol) as reported by the tricycle riders in this study. The pharmacological effects of these substances impair cognitive and psychomotor skills necessary for driving and elevate the risk of accidents (EMCDDA, 2014). The pattern of psychoactive drug use reported by the tricycle riders in this study has critical implications for road safety, especially in view of the reported prevalence of frequent and poly-drug use.

The findings also show that common occupational hazards such as stress, exhaustion and fatigue are risk factors for psychoactive drug use among commercial tricycle riders. Driving (and riding) is a strenuous and rugged physical activity which is associated with stress and fatigue (Taylor & Dorn, 2005). Commercial transportation in Nigerian cities involves commuting a vast and unremitting number of people (Fasakin, 2001; Ogunbode, 2008). Since profit mostly depends on the number of passengers commuted and distance covered (Fasakin, 2001), commercial transporters make incessant and energy-sapping journeys in order to maximize profit. They use psychoactive drugs to medicate the conditions associated with their arduous work. Drug use is therefore a form of self-medication, where drugs are used intentionally to treat the conditions which commercial tricycle riders suffer (West, 2006).

Initiation of psychoactive drug use among commercial tricycle riders is mediated by peer influence. Psychoactive drug use plays an important function in the occupational sub-culture, serving as a mechanism of social and psychological functioning for tricycle riders. Such contextual understanding of psychoactive drug use among commercial transport

workers is essential for the development and implementation of effective programs for prevention and control. They highlight the importance of peer-based education and behavioural change programs which seek to address the problem of psychoactive drug use among commercial transport workers.

The key insight emerging from the study is tricycle riders' views on the physiological and psychological effects of psychoactive drugs and how these elevate the risk of road traffic accidents. They mentioned weakness, shivering, nervousness, and impairment of vision and coordination as the effects of drugs. These compromise the individual's ability to navigate traffic effectively and increase the risk of road traffic accident. Lay accounts of the impact of psychoactive drugs on driving/riding behaviour resonate with existing literature, especially in relation to visual and mental impairments. Psychoactive drugs such as alcohol, cannabis, cocaine and heroin impair driving performance by altering mood, perception, concentration, coordination and responses to external stimuli, especially when high doses are taken and when they are used in combination (Kelly, Darke & Ross, 2004; EMCDDA, 2014). There is a convergence between scientific and lay understanding of the effects of drugs on driving and how these increase the risk of road traffic accidents. This finding has important implications for road safety policy. Lay views on the effects of psychoactive drugs on driving provide an entry point for behavioural change interventions. Integrating lay views into the development of interventions has the potential to foster acceptance and improve outcomes.

The tricycle riders recommended education, routine drug use screening of

transport workers, curbing bribery and corruption among road safety officials, and controlling the availability of psychoactive drugs as measures for reducing drug use and preventing road traffic accidents. Their recommendations resonate with internationally recognized measures for the prevention and control of traffic accidents. In Nigeria, educational campaigns should be implemented. These campaigns should build on lay understanding of the link between psychoactive drug use and road traffic accidents. They should engage tricycle riders as peer educators to maximize effectiveness. They should also provide accurate information, discourage driving under the influence of alcohol and other psychoactive drugs and promote adoption of safe driving behaviours. It is also important to enact and enforce appropriate legislations on driving under the influence of alcohol/drugs. These include routine blood alcohol screening and drug use screening, which is recognized as an effective measure for reducing road traffic accidents (WHO, 2015). There is no maximum blood-alcohol concentration (BAC) in Nigeria (Welcome & Pereverzev, 2010). This makes the implementation of the Federal Traffic code on drink-driving problematic. A legal blood alcohol concentration should be established to make it possible to prosecute drivers involved in impaired driving.

The tricycle riders' recommendations support the need for a multi-level, combination strategy for promoting road safety. They highlight the importance of complementing individual-behavioural interventions (educational programs and routine drug use testing) with structural-environmental interventions. The latter include enactment and enforcement of relevant road safety legislations, curbing

corruption among road safety officials and curtailing the supply of psychoactive drugs. Bribery and corruption is a contributory factor to ineffectiveness in the enforcement of traffic laws by enforcement agents (Asogwa, 1992). It is therefore necessary to adopt measures to reduce the level of corruption among road safety officials. Relevant measures include training and provision of adequate incentives. Measures should also be taken to control the supply of psychoactive drugs, including enacting and enforcing laws on alcohol advertising and marketing. But supply reduction strategies have not been very successful in reducing drug use. Although these measures should not be abandoned, their complement should be developed: policies and interventions to reduce demand for drugs and alcohol. Primary prevention programs on drugs and alcohol, including public education campaigns incorporating culturally-meaningful and factual information on the dangers of alcohol and drug abuse should be mounted. Treatment services should also be provided for people with alcohol and drug use disorders.

CONCLUSIONS

The majority of Nigerian people rely on commercial transportation for their daily activities. The safety of commercial transportation is affected by human factors, particularly impaired driving owing to the consumption of alcohol and other psychoactive drugs. Driving under the influence (DUI) of alcohol and other drugs increases the risk of road traffic accidents. But policy and interventions addressing road traffic violations such as DUI are mostly based on expert views. Little consideration is given

to the views of the transport workers themselves. Lay views could enrich and optimize the effectiveness of policies and programs. The views reported in this article indicates that psychoactive drug use among commercial tricycle riders is linked to occupational hazards such as stress, fatigue and exhaustion, and affects riding through impairment of vision, judgement and coordination. These elevate the risk of road traffic accidents. The views also highlight the importance of education, law enforcement and routine drug use screening, curbing corruption among enforcement officials and controlling availability of psychoactive drugs as measures for stemming drug-impaired driving and preventing road traffic accidents. These views overlap with scientific evidence on risk factors for traffic accidents and counter-measures. It is important to integrate lay views into road safety policy and interventions to bolster acceptance and improve outcomes.

REFERENCES

- Abiona, T. C., Aloba, O. O., & Fatoye, F. O. (2006). Pattern of alcohol consumption among commercial road transport workers in a semi-urban community in south western Nigeria. *East African Medical Journal*, 83(9), page numbers.
- Abikoye, G. E. (2012). Psycho-spatial predictors of hazardous drinking among motor drivers in Ibadan, Nigeria: Implications for preventing vehicular accidents. *International Journal of Alcohol and Drug Research*, 1(1), 17-26
- Asogwa, S. E. (1992). Road traffic accidents in Nigeria: A review and a reappraisal. *Accident Analysis and Prevention*, 24(2), 149-155.
- Arneratunga, S., Hajar, M. & Norton, R. (2006). Road-traffic injuries: confronting disparities to address a global-health problem. *The Lancet*, 367, 1533-1540.
- Ayinde, O. O., Adejumo, O. A., Olukolade, O. & Lasebikan, V. A. (2018). Should traffic offenders undergo compulsory "mental test": A study of mental health and crash involvement among commercial motorcyclists in Ibadan Nigeria? *Community Mental Health Journal*, Doi: 10.1007/s10597-018-0302-4.
- Barbone, F., McMahon, A. D., Davey, P. G., Morris, A. D., Reid, I. C., McDevitt, D. G., & MacDonald, T. M. (1998). Association of road-traffic accidents with benzodiazepine use. *The Lancet*, 352(9137), 1331-1336.
- Bekibele, C. O., Fawole, O. I., Bamgboye, A. E., Adekunle, L. V., Ajav, R. And Baiyeroju, A. M. (2007). Risk factors for road traffic accidents among drivers of public institutions in Ibadan, Nigeria. *African Journal of Health Sciences*, 14(3-4), 137-142.
- Borkan, J. (1999). Immersion/crystallization. *Doing Qualitative Research*, 2, 179-194.
- Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101
- Campbell, J., Quincy, C., Osserman, J and Pedersen, O. (2013). Coding in-depth semi-structured interviews: problems of unitization and inter-coder reliability. *Sociological Methods & Research*, 42(3), 294-320.
- Drummer, O.H., Gerostamoulos, J., Batziris, H., Chu, M., Caplehorn, J., Robertson, M.D., Swann, P. (2004). The involvement of drugs in drivers

- of motor vehicles killed in Australian road traffic crashes. *Accident Analysis and Prevention*, 36: 239-248.
- European Monitoring Centre for Drugs and Drug Addiction (2014). Drug use, impaired driving and traffic accidents. 2nd Edition. Lisbon: EMCDDA.
- Fasakin, J. O. (2001). Some factors affecting daily profits of commercial motorcycles in Akure, Nigeria. *Transport Policy*, 8(1), 63-69.
- Foundation for Economic Research and Training (2004). *Socio-economic profile of Akwa Ibom State*. Uyo: FERT.
- Glaser, B. G. (1978). *Theoretical sensitivity: advances in the methodology of grounded theory*. Mill Varley, California: Sociology Press.
- Hazen, A. & Ehiri, J. E. (2006). Road traffic injuries: Hidden epidemic in less developed countries. *Journal of the National Medical Association*, 98(1), 73-82.
- Holmgren, A., Holmgren, P., Kugelberg, F. C., Jones, A. W., & Ahlner, J. (2007). Predominance of illicit drugs and poly-drug use among drug-impaired drivers in Sweden. *Traffic injury prevention*, 8(4), 361-367.
- International Transport Forum (2017). Road safety annual report. Paris: OECD Publishing (<http://dx.doi.org/10.1787/irtad-2017-en>).
- Iribhogbe, P. E. & Odai, E. D. (2009). Driver-related risk factors in commercial motorcyclists (Okada) crashes in Benin City, Nigeria. *Pre-hospital & Disaster Medicine*, 24(4), 356-359.
- Jacob, G., Aaron-Thomas, A. & Astrop, A. (2000). *Estimating global road fatalities*. London: Transport Research Laboratory.
- Kelly, E., Darke, S. and Ross, J. (2004). A review of drug use and driving: epidemiology, impairment, risk factors and risk perceptions. *Drug and Alcohol Review*, DOI: 10.1080/09595230412331289482.
- Longo, M. C., Hunter, C. E., Lokan, R. J., White, J. M., & White, M. A. (2000). The prevalence of alcohol, cannabinoids, benzodiazepines and stimulants amongst injured drivers and their role in driver culpability: part ii: the relationship between drug prevalence and drug concentration, and driver culpability. *Accident Analysis & Prevention*, 32(5), 623-632.
- Lowenstein, S. R. and Koziol-McLain, J. (2001). Drugs and traffic crash responsibility: A study of injured motorists in Colorado. *The Journal of Trauma, Injury, Infection and Critical Care*, 50(2), 313-320.
- Makanjuola, B. A., Oyeleke, S. A. & Akan-de, T. M. (2007). Psychoactive substance use among long distance vehicle drivers in Ilorin, Nigeria. *Nigeria Journal of Psychiatry*, 5(1), 14-18.
- Nantulya, V. M. & Reich, M. R. (2002). The neglected epidemic: road traffic injuries in developing countries. *British Medical Journal*, 324(11), 1136-1141.
- Nantulya, V. M., Muli-Musiime, F. (2001). Kenya. Uncovering the social determinants road traffic accidents. In: Whitehead, E. T., Diderichsen, F., Bhuiya, A. & Wirth, M (eds.) *Challenging inequities: from ethics to action*. Oxford: Oxford University Press.
- O' Leary, Z. (2004). *The essential guide to doing your research project*. Los Angeles: Sage Publishers.
- Ogunbodede, E.F. (2008). Urban road transportation in Nigeria from 1960 to 2006: problems, prospects and challenges. *Ethiopian Journal of*

- Environmental Studies and Management*, 1(1), 7-18.
- Omolase, C. O., Afolabi, O. T., Omolase, B. O. & Ihemedu, C. O. (2011). Drink-driving among commercial drivers in a Nigerian city. *Middle East African Journal of Psychiatry and Alzheimer*, 2, 15-19
- Pereden, M., Scurfield, R., Sleet, D., Mohan, D., Hyder, A.A., et al. (2004). *World report on road traffic injury prevention*. Geneva: World Health Organization.
- Robertson, M. D., & Drummer, O. H. (1994). Responsibility analysis: a methodology to study the effects of drugs in driving. *Accident Analysis & Prevention*, 26(2), 243-247.
- Syed, M. & Nelson, S. (2015). Guidelines for establishing reliability when coding narrative data. *Emerging Adulthood*, Volume/issue number, 1-13.
- Taylor, A. H., & Dorn, L. (2006). Stress, fatigue, health, and risk of road traffic accidents among professional drivers: the contribution of physical inactivity. *Annual Review of Public Health*, 27, 371-391.
- Trinca, G. W., Johnson, I. R., Campbell, B. J., Haight, F. A., Knight, P. R., Mackary, G. M. Et. al. (1988). *Reducing traffic injury – A global challenge*. Royal Australian College of Surgeons.
- Welcome, M. O. & Pereverzev, V. A. (2010). Limit of blood-alcohol concentration: A major problem to solve in Nigeria. *European Psychiatry*, 25(Supplement 1), 544.
- West, R. (2006). *Theory of addiction*. Oxford: Blackwell Press.
- World Health Organization (2004). *Summary tables for mortality and disability adjusted life years for all member countries in 2002*. Switzerland, Geneva: WHO.
- World Health Organization (2013). *Road safety in the WHO African region – the facts 2013*. Switzerland, Geneva: WHO.
- World Health Organization (2015). *Global status report on road safety 2015*. Switzerland, Geneva: WHO.
- Woratanarat, P., Ingsathit, A., Suriyawongpaisal, P. et. al. (2009). Alcohol, illicit and non-illicit psychoactive drug use and road traffic injury in Thailand: A case-control study. *Accident Analysis and Prevention*, 41, 651-657.