

Knowledge, attitudes and practices towards drunk driving as a risk factor for road traffic accidents among public bus drivers in Ndola, Zambia

David Mwanza^{1*}, Victor Mwanakasale², Seter Siziya³

¹The Michael ChilufyaSata School of Medicine, Copperbelt University, Ndola ,Zambia

²Department of Basic Sciences, Michael Chilufya Sata School of Medicine, Copperbelt University, Ndola, Zambia

³Department of Public Health, Michael Chilufya Sata School of Medicine, Copperbelt University, Ndola, Zambia

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ABSTRACT

Introduction: Road Traffic Accidents account for about 1.4 million deaths globally. Human error, alcohol abuse in particular by road users is the leading cause of traffic accidents. Road Traffic accidents in Zambia are ranked the third highest cause of death for people aged between 5 and 25. The aim of the study was to establish knowledge, attitude and practices towards drunk driving. **Method:** The study was a cross sectional study that included randomly selected public bus drivers at Mulungushi bus station in the city of Ndola in Zambia. A structured questionnaire was used to determine the knowledge, attitudes and practices of drivers. Data was entered and analyzed using SPSS V 20.0. **Results:** The study enrolled 384 participants. The study showed that all the participants had a poor knowledge towards drunk driving despite 60.6%(n=223) of the participants knowing that alcohol impairs judgment and 63.5%(n=243) knowing that alcohol is a risk factor for the increasing number of road traffic accidents. 69.3%(n=266) of the participants had negative attitude towards drunk driving, 54.7%(n=210) had good practices towards drunk driving. However, only 44.6% (n=132) admitted to drinking and driving of which only 11% (n=15) do it all the time. **Conclusion:** The study revealed a poor knowledge and attitude towards drunk driving among public bus drivers in Ndola. The study also showed that a majority of the public bus drivers had good practices towards drunk driving. As such there is need to put in measures in the areas of knowledge and attitude towards drunk driving which may include sensitization of public bus drivers on the effects of drunk driving. This can be done through road safety campaigns by relevant authorities.

Key words: Alcohol, knowledge, attitude, practices, ndola

Introduction

Road Traffic Accidents are one of the most important causes of deaths and injuries [1]. Road traffic accidents account for about 3400 deaths per day and about 1.2 million in a year [2,3]. According to the world health organization this can increase by about 65% by the year 2020, with low and middle income countries accounting for 80% of these deaths [4]. Alcohol is a major contributing factor to vehicle related deaths and injuries in high income countries [5].

*Correspondence

David Mwanza

The Michael ChilufyaSata School of Medicine, Copperbelt University, Ndola ,Zambia

E Mail: david.katema91@gmail.com

About 480,000 deaths and 20 million injuries annually are attributed to drunk driving [6] despite a decrease in drunk driving in the last decades [7]. Alcohol significantly increases the chances of having a road traffic accident [8]. Currently Road Traffic Accidents are ranked ninth as the leading cause of deaths out of the 100 most important causes of death and are the leading cause of disability adjusted years [9,10]. In Zambia Road Traffic Accidents are ranked the third highest cause of death after HIV/AIDS and malaria and are the second leading cause of death for people aged between five (5) and twenty (20). Annually about 2,000 fatalities are reported as a result of road traffic accidents. A 2013 report by the Zambia police showed 29,118 road traffic accidents representing a 47.6% increase from the 19,727 reported in 2008. Human error

caused by alcohol among other things accounted for about 71.7% of the road traffic accidents. Due to this strong association between alcohol and road traffic accidents, it is vital to determine the knowledge, attitude and practices of drivers towards drunk driving as a risk factor for road traffic accidents.

Methodology

Study Setting and Site

The study was done at mulungushi bus station Ndola, Zambia and enrolled 384 participants.

Study Design

This study was a cross sectional study.

Sample Size Determination

The sample size was 348. It was determined using the formula below:

$$n = \frac{R^2PQ}{d^2}$$

Where: P is the estimated prevalence of Knowledge; but since the estimated prevalence of knowledge is not known, 50% was used.

R is 1.96

d is the desired width of confidence interval: 5

Q is (100-P) which is 50

Data collection

A standardized questionnaire was used to collect data from randomly selected public bus drivers. The questionnaire had the part for demographics and the part that assessed the participants' knowledge, attitude, and practices towards drunk driving. The part for demographics included questions which were capturing the participants' age, sex, and residence.

Data processing and analysis

Statistical package for social sciences (SPSS V 20.0) was used for data entry and analysis,

Ethical Consideration

Ethical approval was granted by the Tropical Diseases Research Centre (TDRC) Ethical committee, at Ndola Teaching Hospital, with reference number TRC/C4/02/2017.

Results

A total of 384 public bus drivers were enrolled in the study. All of the participants were male. The largest group of the participants were between the age of 25 and 34, representing 49.2% (n=189) of the total population (Table 1). 46.6% (n=179) of the participants had attained secondary education and 14.1% (n=54) never attained any form of education (Table 1).

Although all the participants had poor knowledge (Table 2), 60.6% (n=223) knew that alcohol impairs judgment (Figure 1). 69.3% (n=266) of the participants have a negative attitude towards drunk driving (Figure 1). It also shows that 54.7% (n=210) had a good practice towards drunk driving. Only 44.6% (n=132) drink and drive (Table 3) and 11% (n=15) always drink and drive (Table 3).

Table 4 shows that 36.4% (n=134) of the participants think that people drink and drive despite campaigns against drunk driving because of lack of stiff punishment.

Table 5 shows that 83.1% (n=319) agreed that alcohol was being sold within station premises and Table 6 shows that 92.4% (n=355) of the public bus drivers bosses do not tolerate drunk driving among their workers. To calculate the total knowledge every correct answer was accorded 1 mark and a wrong answer 0. There were a total of 8 questions, giving a total of 8 marks. Every participant who had 4 marks and below was recorded to have poor knowledge were as those who scored 4 and above were deemed to have adequate knowledge.

Table 1: Demographic characteristics of participants

characteristic	n	%	
Age	18 to 24	55	14.3
	25 to 34	189	49.2
	35 to 44	126	32.8
	>45	14	3.6
Educational level	Primary	145	37.8
	Secondary	179	46.6
	Tertiary	6	1.6
	None	54	14.1

Table 2: Knowledge, Attitude and Practices of participants

		n	%
Knowledge	Poor Knowledge	368	100
	Adequate knowledge		
Attitude	Positive attitude	118	30.7
	Negative attitude	266	69.3
Practices	Good practice	210	54.7
	Bad practice	174	45.3

KNOWLEDGE OF PARTICIPANTS

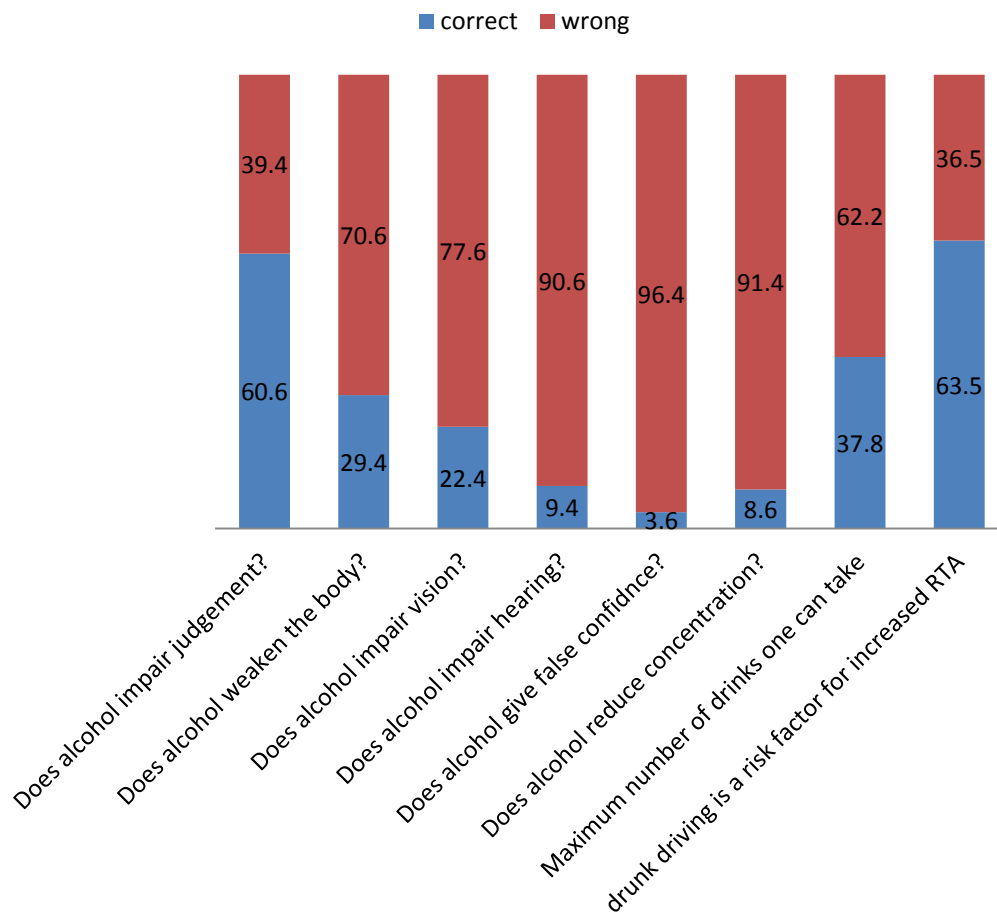


Fig 1 : Knowledge responses of participants

Table 3: percentages of participants who drink and drive

		frequency	percentage
Do you drink and drive?	yes	132	44.60%
	no	164	55.40%
Do you always drink and drive?	yes	15	11%
	no	121	89%

Table 4: opinion of participants on why people drink and drive despite campaigns against drunk driving

	frequency	Percentage (%)
No road patrols by police	62	16.8
Lack of stiff punishment	134	36.4
Law enforcers are easily bribed	64	17.4
Addiction	107	29.1
Others	1	0.3

Table 5 :Whether Alcohol is sold within school premises

	Frequency.	Percentage(%)
Yes	319	83.1
No	65	16.9
Total	384	100

Table 6: Does your boss condon Drinking Drinking

	Frequency	Percentage(%)
Yes	29	7.9
No	355	92.4
Total	384	100

Discussion

This study investigated the knowledge, attitudes and practices of drunk driving as a risk factor for road traffic accidents at Mulungushi bus station Ndola, Zambia.

In our current study, all our participants had poor knowledge. However, a majority of them 60.6 % (n=223) and 63.5 % (n=244) knew that alcohol impairs judgment and is a risk factor for road traffic accidents respectively. These findings are similar to a similar study that was done in Cambodia where a majority of respondents (87.1%) agreed that alcohol use heightened their risk of a road traffic accident. [11]. In another study done in Vietnam, most of the participants (96.4%) believed that drink driving was one of the causes of road traffic accidents [12]. Likewise, in the current study the majority of the participants knew that alcohol impairs judgment and was a risk factor for road traffic accidents. In a similar study done in Ghana the majority of the respondents believed that the major

cause of road traffic accidents was over speeding, followed by driver carelessness, poor road conditions, inexperienced driving, and drunk driving in that order [13].

The participants attitude was determined by asking for their opinions on the appropriate punishment for those convicted for drunk driving, breath testing of drivers among other questions. 69.3% (n=266) of the participants have negative attitude towards drunk driving while 30.7% (n=118) had good attitude towards drunk driving. A poor attitude was established in this study and can be attributed to the fact that the participants had a poor knowledge towards drunk driving. The study also revealed that most of the participants believed that people drink and drive because there is no stiff punishment. However, the study done in Cambodia reported that people don't engage in such because of police enforcement [11].

In this study the majority of the participants (54.7%) had a good practice towards drunk driving and only 44.6% (132) admitted to drinking and driving of which

only 11% (15) do it all the time. In a study done in Cambodia, 37.1% (n=438) of the participants were reported driving within 2 hours of drinking alcohol at least once in 30 days preceding the survey [11]. In another study done in Ghana about 55% of drivers who took alcohol were reported driving within an hour after taking alcohol [13,14]. Most of the participants (83.1%, n=319) agreed that alcohol was being sold in the station. The selling of alcohol within the station premises may be a contributing factor to the 44.6% recorded bad practices. The participants' bosses had good attitude towards drunk driving as most of them do not condone drunk driving (92.4%, n=355).

Limitations

Most of the participants had difficulties reading and understanding the questions. This meant reading and interpreting most of the questions to the participants which consumed a lot of time. Biased answers may have been obtained due to some participants thinking that the information would be used for other purposes besides research, for example some believed they would be reported for bad practices.

Conclusion

The research showed that participants had poor knowledge and attitude towards drunk driving. However the majority of the participants despite poor knowledge and attitude had good practices towards drunk driving. To improve knowledge among public bus drivers educational campaigns is the way to go. To further reduce bad practices, punishment for offenders should be stiffened, and the number of road patrols by relevant authorities should be increased.

Authors Contributions

Data collection and entry was done by David Mwanza and Prof. S. Siziya. Blessings Kapisha and David Mwanza did the analysis and interpretation. The article was written by David Mwanza whereas the final editing of the manuscript was done by Prof. V. Mwanakasale.

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