

Road Accidents and Alcohol Consumption in Angola

Carla Alexandra Correia da Silva* and Xiomara Rodriguez Barroso

Multiperfil Health Training Center, Luanda, Angola

***Corresponding Author:** Carla Alexandra Correia da Silva, Multiperfil Health Training Center, Luanda, Angola.

Received: November 30, 2020; **Published:** March 17, 2021

Abstract

The consumption of alcoholic beverages is an alarming problem worldwide, as it is one of the main risk factors for the causes of death worldwide, with young people being the most affected. Alcohol consumption is also a risk factor for other problems related to its consumption, including exposure to risky situations, violence, absenteeism and/or accidents at work, among others. It is intended to reflect on the possible association between the consumption of alcoholic substances and road accidents in Angola. As a methodology, a narrative review of the existing literature in Angola on this theme was carried out, and the research was carried out in several national and international databases, namely Google academic, BVS (Virtual Health Library), Medline, Cochrane and Lilacs. The conclusion remains that road accidents can be related to the consumption of alcoholic substances, although in the studied neighborhood it was not possible to collect data to prove this relationship, despite the Angolan literature confirming the direct association between these two factors. Continued studies in this area are recommended, with management bodies concerned with their prevention.

Keywords: *Alcohol Drinking; Traffic Accident; Health Promotion; Health Education*

Introduction

Alcohol consumption is an important and worrying public health and safety problem in Angola. In such a way, that it is contemplated in the National Plan of Health Development (2012 - 2025) of the Ministry of Health of Angola (MINSa), in its project 23: "Fight against alcoholism" [1].

The World Health Organization (WHO) reports that 320 000 young people aged between 15 and 29 years, die annually from causes related to alcohol, which corresponds to 9% of deaths in this age group [1].

In 2012, the results of the World Survey on excessive alcohol consumption were presented, in which it was identified that in Angola about 8.7 million people are potential consumers of "heavy" alcohol. In the 12 months preceding the survey, about 21.79% men and 16.07% women consumed an average of 19.56 liters per year. Deaths attributable to alcohol are around 3.0% among men and 1.4% among women. In terms of diseases, alcoholism contributes annually to 1.8% of the diseases registered in Angola [1].

Decree 5/08 of 29 September, which approves the highway code, establishes a blood alcohol limit of 0.5%. The advertising law (Law No. 9/02 of 30 July), in its section IV, article 22, establishes the protective measures against the effects of alcohol advertising on minors,

and the hours in which beverage advertising must pass on radio and television. However, the legislation in force in Angola that regulates the consumption, trade and advertising of alcoholic beverages, has little practical application [1].

Objective of the Study

General objective: To reflect on the consumption of alcoholic substances and road accidents in Angola.

Specific objectives: (a) Describe the reality of alcohol consumption in a neighborhood in Luanda; (b) Check the relationship between the consumption of alcoholic substances and road accidents described in the literature. (c) Appreciate the relationship between alcohol consumption and road accidents in a neighborhood in Luanda.

Methodology

This is a descriptive, reflective, qualitative study using as methodology the narrative review of the literature, having been made the research in several national and international databases, namely Google academic, VHL (Virtual Health Library), Medline, Cochrane and Lilacs. The keywords used were Alcohol Drinking; Traffic Accident; Health Promotion; Health Education. It is intended to reflect on road accidents and the consumption of alcoholic substances, presenting data referring to a central district of the city of Luanda. A narrative review of the literature on this topic was carried out in the Angolan reality. Due to the previous diagnosis of the health situation of the referred neighborhood, carried out from April to July 2018, data were obtained, among others, regarding the situation of consumption of alcoholic beverages and road accidents. The diagnostic data were analyzed using the SPSS statistical program, version 21. The ethical principles underlying the investigation were guaranteed.

Diagnosis of health situation in sector A of the Imbondeiro neighborhood

According to the data obtained in the diagnosis of the health situation of the community in sector A, in Bairro do Imbondeiro, carried out from April to July 2018, regarding the characterization of the community, with regard to alcohol consumption habits and road accidents, it was found that:

- Of the 315 children in the sector, 12% have already been victims of road accidents. Of the adolescent population in the sector (82 adolescents), regarding the consumption of alcoholic beverages, 1.2% report consuming them at least once or twice a week. Setting a minimum age to buy and consume alcohol, and regulating the promotion of alcoholic beverages in the youth market, are some of the strategies that can help to reduce harmful alcohol consumption [2].
- Regarding accidents, 37.8% of the adolescents reported having had an accident, of which 16.13% had road accidents. Traffic accident injuries were the leading cause of worldwide mortality in 2015 [2].
- Of the 393 adults living in sector A, in relation to the consumption of alcoholic beverages, 42.7% of the surveyed population reported doing so, of which, 72.6% reported it 1-2 times a week and 27, 4% do it more than 2 times a week. For the Health and Alcohol Information Center [3], WHO says that there is no safe level for alcohol consumption; if the person drinks, there is a risk of health problems, especially if he drinks more than two drinks a day or if he does not stop drinking at least two days a week. Regarding accidents, road traffic was the most mentioned with 42.3%.
- According to the reference [2], the harmful effect of alcohol is directly related to road accidents, being responsible for 25% of these.

Consumption of alcoholic substances

According to the reference [4], the beginning of the consumption of alcoholic beverages has been observed at increasingly younger ages, namely in the adolescence phase.

For [5], the concept of alcoholism was incorporated into the International Classification of Diseases in its version 8 (ICD-8), in diagnoses related to the consumption of psychoactive substances. The consumption of alcoholic beverages is considered an important public health problem, with repercussions in terms of education and economics. The reference [6], states that already in the 19th century it was scientifically accepted that alcoholism is a disease; for society, the abuse of alcohol use was seen as an addiction, disregarding the physical and mental damages and diseases caused by its consumption.

From social to problematic use, alcohol is the most consumed drug in the world. According to the reference [2], 3 million people die each year as a result of excessive alcohol consumption. In 2016, 5% of deaths worldwide were related to alcohol consumption. The same source also states that, in 2016, of the various consequences of alcohol consumption, 29% of deaths occurred due to injuries resulting from car accidents or suicides. He also mentions that men are more likely to suffer damage caused by the consumption of alcoholic beverages, with the number of deaths associated with it being 2.3 million male people. In addition to men, young people are also more likely to die due to excessive alcohol consumption. Of the total number of deaths among people aged 20 to 29, 13.5% of cases are related to alcoholic beverages, representing 7.2% of premature deaths worldwide. Despite the alarming numbers, in the reference [2], it states that the global population is becoming aware of the risks of excessive alcohol consumption. In Europe consumption decreased: in 2012 it was 10.9 liters of pure alcohol per inhabitant, and increased to 9.6 liters in 2016, which is similar to what happened in America.

For [3], the world level of alcohol consumption in 2016 was 6.4 liters of pure alcohol per person aged 15 and over; this level has remained stable since 2010. Consumption in the Southeast Asia Region has increased by almost 30% since 2010, while in the European Region it has decreased by 12% but, even so, it was the highest in the world in 2016, with 9.8 liters of pure alcohol per person.

Alcohol consumption is of concern for health reasons, as the biological system suffers degradation due to its use, which causes brain damage and neurocognitive deficits with implications for learning and intellectual development, as well as cardiovascular and gastrointestinal diseases, sexual impotence, among others. Likewise, the consumption of alcoholic beverages is associated with consequences for psychophysiological health, such as depression, antisocial behavior, changes in mood. On the other hand, alcohol consumption is associated with harmful behaviors that include violence, accidents, driving under the influence of alcohol, absenteeism from work and increased risk for the use of other drugs [7].

Regarding damages to the nervous system, the consumption of alcoholic beverages disrupts the action of excitatory and inhibitory neurotransmitters by increasing or decreasing one or the other, causing their consumers to express extremes [8].

The four-year report by the World Health Organization (in [2]), reveals that alcohol is responsible for one in every 20 deaths in the world. It is, therefore, a psychoactive substance and the quantity in milliliters of ethanol in each 100 ml of the drink is expressed in degrees Guy-Lussac (°GL) [9].

According to a study published in the reference [10], it reveals that around three million deaths worldwide in 2016 can be attributed to alcohol. Of these, 29% were caused by injuries (including road accidents) and not by health problems.

The study also revealed that distillates constitute the largest percentage of alcohol consumed (45%), in relation to beer (34%) and wine (12%) [10]. These data are corroborated by the reference [11], which states that worldwide, distilled beverages are the most consumed type of alcoholic beverage (50%), beer comes in second with 35% of consumption and wine with 8%.

With regard to the reality in Angola, according to the World Survey on excessive alcohol consumption, the most consumed drinks are: beer (64.3%), wine (13.7%), spirits (17.4%), and others (4.7%). It also states that the quality of drinks has an impact on health and mortality. Drinks made at home or produced illegally can, for example, be contaminated with methanol and other toxic substances, such as disinfectants. The same source reveals that almost $\frac{1}{4}$ of the pure alcohol consumed in the world is illegal, and therefore unregulated [12].

Contrary to some existing ideas, there is no health benefit from drinking alcohol. There are studies that prove that drinking two doses of alcoholic drink a day increases the risk of premature death by 7%. It is estimated that individuals aged 15 years and over consumed close to 6.2 liters of pure alcohol in 2010 (equivalent to about 13.5 g per day) [13].

Harmful use of alcohol is one of the risk factors with the greatest impact on morbidity, mortality and disability worldwide, and is related to 3.3 million deaths each year. In this way, almost 6% of all deaths worldwide are attributed totally or partially to alcohol [11].

The consequences of using this substance are notorious for society, with a negative impact on its development, since they increase the costs of hospitalizations, loss of productivity at work, absenteeism, unemployment, among others. Worldwide, it is visible that the youngest age groups (20 - 49 years) are the most affected in relation to deaths associated with alcohol use, resulting in a greater loss of economically active people.

The consequences of drinking and driving tend to be worse in countries with worse economic development because they have less safe roads and vehicles [11].

Still the same reference [11], it stipulated principles for the development and implementation of policies related to the harmful effects of alcohol.

As for the effectiveness of interventions, studies show that population-based policies (restricting access to alcohol and regulation of advertisements) are the most cost-effective interventions in reducing the harm caused by alcohol, and there are also effectiveness related to control policies of alcohol on drivers. Thus, WHO [2], considers the prevention and reduction of harmful alcohol use a priority, and emphasizes the need for countries to concentrate more efforts so that it is possible to reach the previously stipulated target of a 10% relative reduction in consumption harmful in 2025.

Policies to reduce excessive alcohol consumption are beyond the domain of the health sector, and involve sectors such as development, transport, social policy, fiscal policy, trade, agriculture, consumer policy, education and employment, thus being the responsibility from various government organizations and institutions [14].

Angola, like many other countries, is experiencing a context where alcoholic beverages are increasingly accessible as consumer goods.

We verified this reality when the health diagnosis of sector A of the Imbondeiro neighborhood was carried out in 2018, where we noticed the beginning of the consumption of alcoholic beverages from an early age by children and adolescents.

There is a clear need for more guidance to support and complement regional and national actions to reduce the harmful use of alcoholic beverages, as they can easily trigger serious problems for the health, economy and education of individuals, families and communities, as mentioned in reference [15], when it states that if the consumption of alcoholic beverages is not regulated or supervised, it can become a global social martyrdom.

Thus, at the 61st World Health Assembly, global strategies were established to respond to this need. The contemplated policy options were as follows: increase awareness and political commitment, response from the health sector, community action to reduce harmful use

of alcohol, alcohol-based driving policies and countermeasures, problem of access to alcohol, problem of the commercialization of alcoholic beverages, price policies, reduction of harm, reduction of the impact of illegal and informal alcohol on public health [14].

Thus, interventions planned in the context of health education are necessary in order to prevent the early onset of alcohol consumption and its inappropriate use, through the promotion of healthy behaviors, the creation of mutual aid groups, aiming to gradually reduce the consumption and reduce the consequences. Intervention at the level of primary prevention is a challenge and an imperative for health professionals [16]

Road accident

According to the reference data [12], road accidents are in the ninth position in the list of causes of death in general, worldwide. It also represents the second cause of death among young people from 5 to 29 years old and the third cause of death between the ages of 30 and 44 years. According to the WHO, if nothing is done in the next few years, in 2030 it could become the fifth leading cause of death.

To address this problem, WHO defined a set of actions framed in the fight against road accidents called "Decade of action road safety plan (2010 - 2020)": these determinations were officially proclaimed by the United Nations General Assembly in March 2010, being its aim is to stabilize and reduce the high percentage of road accidents worldwide, thus estimating that in a decade 5 million lives can be saved by this cause. This plan contains actions aimed at improving road safety and mobility, vehicle safety and adequacy of the post-accident response. With these actions, WHO predicts that in 2020 there will be a 50% reduction in the consequences of road accidents worldwide [12].

Angola represents the third highest road accident rate, with road accidents being the second leading cause of death after malaria. The two biggest causes of accidents are poor driver preparation and driving under the influence of alcohol. In 2013, a total of 17,262 accidents were recorded, resulting in 4,305 deaths and 16,027 injuries (National Directorate of Traffic and Transport [17]).

According to the same reference [17], since 2008 there has been an increasing trend in the number of accidents and, consequently, injuries and deaths. According to this organization, from 2008 to 2010 there was a 56% increase in deaths from road accidents (2710 to 4234, respectively). These figures reveal that in 2014, 12 citizens lost their lives a day, that is, almost one death every two hours. This without considering accidents that are not registered and/or notified. Most of the country's road accidents were run over, revealing the vulnerability of the pedestrian. Road accidents translate into high direct and indirect costs, because in addition to producing fatal victims, they leave sequelae among survivors and their families.

Still the reference [17], states that, regarding the type of accident, there are a greater number of pedestrians being run over in Luanda, Benguela and Bié, a greater number of collisions between cars in Luanda, Huíla, Benguela and Bengo, and the greater number of collisions between automobiles and motorcycles in Benguela, Bié and Moxico. According to the same source, in 2014 there were 17271 accidents across the country, 16494 injuries per day and 4234 instant deaths (12 per day).

Considering primary prevention in terms of road accidents, consists of actions that intervene in the factors man, machine and environment. The safe vehicle and an adequate environment provide conditions so that the accident does not occur. However, at the center of this prevention, there is the man who must interact with the environment and the vehicle in a balanced, conscious and safe way. For this, the domain of cognitive, sensory and motor functions is fundamental, that is, the physical and mental fitness of the driver, training and aptitude in handling the vehicle.

Alcoholism and road accidents

The main causes of accidents are related to the human factor. Human error is present in almost all traffic accidents and can result from the driver's health conditions, as well as his habits and lifestyles, namely alcohol consumption.

The consumption of psychoactive substances is directly related to changes in attention and permanent alertness, which requires immediate reaction from the driver.

Alcohol consumption negatively interferes with perception, reasoning and creativity, reduces productivity and is the direct cause of a high percentage of deaths from road accidents [18].

There are several studies that show that in the set of risk factors for traffic accidents, alcohol is found, being the cause of the most serious accidents while driving, by altering cognitive and behavioral functions, increasing aggressiveness and decreasing attention and perception and reaction capacity [19].

According to the reference [3], the WHO defines as a standard dose 10g of pure ethanol, equivalent to a can of beer (330 ml), a glass of wine (100 ml) or a dose of distilled drink (30 ml) and recommends that men and women do not exceed two doses per day, that is, the equivalent of 20g of alcohol; however, consumption recommendations vary widely from country to country. The guidelines also take into account the short, medium and long term problems that can result from excessive alcohol consumption.

The current code of the road in Angola considers dangerous maneuver and very serious misdemeanor, liable to be inhibited from driving for 2 to 24 months, driving with blood alcohol level equal to or greater than 0.8 g/l and serious misdemeanor with driving disqualification of 1 to 12 months drivers with a blood alcohol level equal to or greater than 0.6 g/l [17].

Due to the occurrence of accidents in drivers with a rate below the limits allowed by law, it is agreed that there is no acceptable limit for safe driving above zero blood alcohol. Thus, the reduction of road accidents in the countries that opted for the "dry law" is justified, with a zero limit in the strict inspection campaigns for the consumption of alcohol while driving [17].

Promoting health therefore involves helping people to develop skills to make healthy choices through education and information, so that they can exercise control over their health and context [20]. The individual is considered as the subject and agent of his own learning and responsible for his options.

This health promotion process is directly related to health citizenship, and refers to the ability to exercise, in an informed and responsible manner, power/influence over your health status and the development of the health system and services health [21].

Conclusion

With this work, it is intended to alert to the problem of road accidents, and its relationship with the consumption of alcoholic substances.

Despite the data collected in the situation diagnosis of sector A in the neighborhood of Imbondeiro, they do not show a direct relationship (alcoholism and road accidents), the fact is that both the consumption of alcoholic beverages in adolescents and adults, as well as road accidents, are a present reality in Angola on a large scale. In view of the consulted literature and studies carried out that indicate the strong connection between these two factors, we can infer that this relationship may also exist in the sector of the analyzed neighborhood.

In the health area, working to prevent accidents and reduce the consumption of alcoholic substances becomes an intervention priority. Investing in the human factor of the driving triad (man, vehicle and environment), should be the focus of health education by health professionals.

Investing in health education aims to build not only an informed, conscious, participatory and responsible society for your health and that of your community, but also citizens more aware of the power of your active, productive and conscious participation. Health promotion emerges as a process that aims to create conditions for people to increase their ability to act on health determinants, giving individuals and the community the means to better manage their own health, developing strategies for involvement in decision-making processes.

It is therefore recommended that the bodies dealing with road accidents and the scientific community carry out studies in Angola, in the scope of alcohol consumption and road accidents, in order to create scientific evidence that will help to substantiate the importance of adopting measures of intervention to reduce this problem.

As suggestions we can mention the need for greater intervention by health professionals, both in primary and secondary education, with interventions related to the matter of road education, starting awareness at an earlier age.

Bibliography

1. Ministry of Health of Angola (MINSa). National health development plan 2012-2025: more and better health. (two). Luanda: Republic of Angola (2014).
2. WHO. Global status report on alcohol and health (2018).
3. CISA. "Health and Alcohol Information Center. Patterns of alcohol consumption (2018).
4. Pinsky I and El Jundi SAR. "The impact of alcohol advertising on consumption among young people: review of the international literature". *Brazilian Journal of Psychiatry* 30.4 (2008): 362 -374.
5. CISA. Health and Alcohol Information Center. History of alcohol (2018).
6. Medrado H. Violence in Schools. Sorocaba: Minelli (2008).
7. Mendes A., *et al.* "Alcohol consumption prevention program for young students. University of Lisbon. Lisbon (2006).
8. Chacon DMM. "Alcohol and Behavior: Effects on Learning and Memory. Master's Dissertation presented to the Graduate Program in Psychobiology as a requirement for obtaining the Master's Degree in Psychobiology. Federal University Of Rio Grande Do Norte (2013).
9. Martins IP and SG Quadros EA. "The consumption of alcoholic beverages in adolescence and its consequences on learning (2013).
10. The guardian. Alcohol causes one in 20 deaths worldwide, says WHO (2018).
11. WHO. Global strategy to reduce the harmful use of alcohol (2010).
12. WHO. Global status report on alcohol and health. Geneva (2014).

13. The Lancet. Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 392 (2018): 1015-1035.
14. WHO. With a view to a global strategy to reduce harmful use of alcohol. Document for discussion at the regional technical consultation meeting on the harmful use of alcohol. Geneva (2009).
15. Fonseca AC. Alcohol consumption and its effects on school performance”. Portuguese journal of pedagogy. Year 44-1 (2010): 259-279.
16. Barroso T., *et al.* “Analysis of the phenomenon of alcohol consumption in adolescents: a study carried out with adolescents from the 3rd cycle of public schools”. Latin American Journal of Nursing vol.17 no.3 Ribeirão Preto May / June 17.3 (2009).
17. National Directorate of Traffic and Traffic. (DNVT) (2015).
18. Pereira D. “The role of alcohol in society. Faculty of Economics, University of Coimbra (2003).
19. Adura FA. “Traffic medicine, the physical and mental fitness exam for drivers and candidates for drivers of motor vehicles”. Sao Paulo (2011): 97-108.
20. Silva S. “Policies and practices to promote healthy habits and lifestyles among children and young people in the municipality of Torres Vedras”. *Portuguese Public Health Magazine* 31.1 (2013): 84-94.
21. Gonçalves C and Ramos V. “Citizenship and health a way to go”. Lisbon: National School of Public Health (2010).

Volume 3 Issue 4 April 2021

©All rights reserved by Carla Alexandra Correia da Silva and Xiomara Rodriguez Barroso.