ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 10, Issue, 10, pp. 41432-41436, October, 2020
https://doi.org/10.37118/ijdr.20256.10.2020

RESEARCH ARTICLE OPEN ACCESS

CONSUMPTION OF ALCOHOL BY BLIND PEOPLE

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ARTICLE INFO

Article History:
Received 20th July, 2020
Received in revised form
29th August, 2020
Accepted 03rd September, 2020
Published online 30th October, 2020

Key Words:
Visually impaired persons, Primary Health care, Alcoholism, Mental health, Substance related disorders.

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ABSTRACT

The study aims to analyze the pattern of alcohol consumption by blind people. Cross-sectional study, with 31 blind people registered in Family Health Units. A identification questionnaire and the AUDIT test were used to collect data. Data were analyzed using the statistical software. The average age was 66.48 years, 67.7% were male, 38.7% were married, 41.9% were illiterate, 93.5% had no employment, 90.6% had family income between 1 and 3 minimum wages, 64.5% were Catholic, and 58.1% lived with siblings, grandchildren and nephews. Over 50% of participants had acquired the blindness. The causes were retinal detachment, glaucoma, cataract and occupational accident. 19% consume alcohol. 83.3% make low risk use of alcohol and 16.7% make hazardous risk use. Age, religion and occupation is associated with alcohol consumption among the blind users of the family health unit. The results underline the practice of health professionals to carry out prevention actions.

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Citation: ***Fernanda Jorge Guimarães, Sueli Senna Moreno, Juliana Gomes de Barros, Jaqueline Galdino Albuquerque Perrelli and Iracema da Silva Frazão, 2020.*** "Consumption of alcohol by blind people*", International Journal of Development Research*, 10, (10), 41432-41436.

INTRODUCTION

In Brazil, approximately 45.6 million people are considered disabled, either presenting difficulty to walk, hear, see or more serious situations that prevent them from performing functions such as self-care (IBGE, 2010). A person with a disability is understood as having a limitation or inability to perform a given activity. It can be physical, auditory, visual, mental or multiple. Physical deficiency is understood as a complete or partial alteration of one or more segments of the human body, causing the impairment of the physical function. Hearing impairment consists of bilateral, partial or total loss of at least forty-one decibels (dB) (Brasil, 2006). Intellectual disability refers to intellectual functioning significantly lower than average and limitations associated with two or more areas of adaptive skills, such as communication; personal care; social skills; use of community resources; health and safety; academic skills; leisure and work.

In turn, multiple disabilities happen when there is an association of two or more deficiencies (Brasil, 2006). Finally, visual impairment corresponds to an irreversible situation of the visual function, with compromised functionality, impeding the individual to perform tasks. Visual deficiency can be classified into low vision and blindness. Blindness refers to the case of visual acuity equal to or less than 0.05 in the best eye. Low vision, in turn, means visual acuity between 0.3 and 0.05 in the best eye (Brasil, 2008). Visually impaired people corresponded to 48% of the total number of people with disabilities in Brazil (Brasil, 2010). In the study site of the present study, the city of Vitória de Santo Antão, there is a population of 273 blind people (IBGE 2010). Among the main causes of blindness in the adult world population are cataract, glaucoma and age-related macular degeneration. It is estimated that 90% of cases of visual impairment happen in developing countries and most could be avoided by prevention or treatment (Brasil 2008). However, the presence of sensory impairment does not limit the blind people in their growth and

development of contact with the most varied social groups, in which they are susceptible to the conviviality with different people. The curiosity to try new situations may also include the use of psychoactive substances (Pagliuca *et al*., 2009; Cezario and Pagliuca, 2009). Psychoactive substances are those associated with alteration of the mind state, causing changes in behavior, with experiences of pleasure or displeasure, with the possibility of leading to dependence (Barbosa *et al*., 2011). Substance abuse can be understood as a pattern of non-adaptive use manifested by adverse, recurrent and significant consequences related to repeated drug use (APA, 2002).

Substance abuse can be triggered by various situations, including low self-esteem, influence of friends and the media, search of relief from anxiety, family history, inability to cope with reality, search of relief from abstinence (Sadock, 2007; Picolotto *et al*., 2010). In the national ranking of consumption of psychoactive substances, whose users become chemical dependents, alcohol occupies the first position with approximately 12% of the population; the second place is occupied by tobacco, with 10%; and the third by marijuana, with 1.2% of the population (CEBRID 2006). Regarding alcohol, its consumption has significantly increased, even among women and adolescents. Some repercussions in society include high crime rate, a greater probability of automobile accidents and family conflicts (Galduroz and Caetano, 2004). This situation is a prevalent reality in the society, constituting a public health problem.

In Brazil, substance abuse is related to damage to the population health and it has sometimes been neglected from the point of view of preventive practices, diagnosis and treatment by health professionals. In response to the growing demand for care in this area, several actions have been developed. This includes investments in prevention, professional training, implementation of street clinics, temporary shelters, community-based services. Although the needs of users are met, this does not happen in a comprehensive manner (Guimarães *et al*., 2016). There are few studies specifically addressing the use of alcohol by people with visual impairment in the Brazilian literature. There is a lack of consistent scientific evidence pointing to disability as a risk factor for alcohol abuse, and also describing the pattern of use of this substance by this group. We have found that few studies investigate the use of specific psychoactive substances as well as the consumption of these substances by specific groups of deficient people in other countries. The lack of detailed description of the use of these substances by persons with disabilities can be considered a shortcoming (Guimarães *et al*., 2016).

However, the need of these people to access information about the consequences of substance abuse, including alcohol, is clear. In this context, a study with people with visual impairment identified the school and the television as the resources used to obtain information about psychoactive substances (Pagliuca *et al*., 2009). Thus, the present study makes it possible to fill a gap in the knowledge produced about the use of alcohol by persons with visual impairment. The study will aid appropriate prevention, treatment and rehabilitation strategies to the needs of this group to be developed. The objective of the study was to analyze the pattern of alcohol consumption by blind people.

MATERIALS AND METHODS

This is a cross-sectional study with quantitative approach carried out in the context of primary health care. The study included blind people registered in Family Health Units in the primary health care network in an urban area. Inclusion criteria were: blind people (both eyes), aged 18 years or older. The exclusion criteria were: presence of multiple deficiencies or some incapacity that could prevent the understanding of the questions of the questionnaire. A sample calculation for finite population was calculated based on the following parameters: 95% confidence coefficient; 5% sample error; 50% event estimate; population of 52 blind people registered in family health units. Thus, a sample of 46 participants was estimated. Convenience sampling was used, involving 31 blind people. It should be noted that since the units never performed activities with this public, there were difficulties in locating these people for the study. There was a sample loss of 15 participants due to the residence of users in areas difficult to access, other participants were not interested in participating in the study, and some users presented monocular blindness or multiple disabilities.

For data collection, a questionnaire identification data of the participants, such as gender, age, marital status, people with whom they reside, monthly family income, schooling, religion and occupation was used, and also the Alcohol Use Disorders Identification Test (AUDIT). The AUDIT is an instrument developed by the World Health Organization that has been adapted and validated for the Brazilian reality (Méndez, 1999). The questionnaire contains ten questions that allow the evaluation of three areas, namely, level of consumption of alcoholic beverages, signs and symptoms of addiction and consequences related to the consumption of alcoholic beverages. For interpretation of the pattern of consumption, it is necessary to sum up the score of the answers which result in a final score ranging from 0 to 40 points, where 0 indicates abstention, 1 to 7 points indicate low risk, 8 to 15 points indicate hazardous risk, 16 to 19 points indicate harmful use and 20 or more points indicate likely dependence (Matute and Pillon, 2008). Initially, the project was presented to the family health teams and to the study population. Subsequently, the questionnaire was applied in the participants' residences. The interviews were carried out in the presence of community health agents and by family members of the participant. The informed consent form was read aloud, along with the witnesses and, after agreement, the participant and the witnesses signed the term. Informed consent was obtained from all individual participants included in the study.

Data were analyzed using the SPSS software version 20.0. A level of 5% of significance was adopted. In the statistical analysis, the Pearson's Chi-square test with continuity correction for 2 x 2 tables was used, and for the other tables, the Likelihood Ratio test was used to verify the association between alcohol use and the variables: gender, marital status, schooling, occupation, family income, religion, and people with whom participants reside. Age was analyzed by the t-test for comparison of means. To test whether the variable followed a normal distribution, the Shapiro-Wilk test was used. Age was expressed as mean and standard deviation. The project was approved by the Research Ethics Committee of the Federal University of Pernambuco (CAAE 14731213.3.0000.5208).

RESULTS

The 31 participants had a mean age of 66.48 years, 67.7% were males, 38.7% were married, 41.9% were illiterate, 93.5% had no employment, 90.6% had family income between 1 and 3 minimum wages, 64.5% declared to be Catholics, and 58.1% declared to reside with other people other than parents, children or spouses.

None of the evangelicals drink alcohol, as highlighted in table 01. Only one participant affirmed to consume alcoholic beverages due to blindness. The age showed statistically significant differences according to table 02. Table 3 shows the level and frequency with which participants consume alcoholic beverages, signs and symptoms related to dependence and the consequences related to the consumption of alcoholic beverages.

Table 1. Distribution of the sample according to the consumption of alcoholic beverages

Variables	Drinks alcohol				Total		p-value
	No		Yes				
	N	%	N	%	N	%	
Gender							
Male	17	68.0	4	66.7	21	67.7	1.000[1]
Female	8	32.0	2	33.3	10	32.3	
Marital status							
Single	6	24.0	3	50.0	9	29.0	0.430[2]
Married	10	40.0	2	33.3	12	38.7	
Widow/widower	9	36.0	1	16.7	10	32.3	
Schooling							
Illiterate	11	44.0	2	33.3	13	41.9	0.682[2]
Complete primary education	7	28.0	1	16.7	8	25.8	
Incomplete primary education	6	24.0	2	33.3	8	25.8	
Complete secondary education	1	4.0	1	16.7	2	6.5	
Occupation							
Unpaid*	25	100.0	4	66.7	29	93.5	0.039[1]
Remunerated	0	0.0	2	33.3	2	6.5	
Family income							
No income	1	4.0	0	0.0	1	3.2	1.000[1]
From 1 to 3 minimum wages	24	96.0	6	100.0	30	96.8	
Religion							
Catholic	15	60.0	5	83.3	20	64.5	0.047[2]
Evangelical	9	36.0	0	0.0	9	29.0	
Spiritist	0	0.0	1	16.7	1	3.2	
Afrodescendant	1	4.0	0	0.0	1	3.2	
People with whom they live							
Father	1	4.0	0	0.0	1	3.2	0.809[2]
Mother	1	4.0	0	0.0	1	3.2	
Son	4	16.0	1	16.7	5	16.1	
Spouse	4	16.0	2	33.3	6	19.4	
Others**	15	60.0	3	50.0	18	58.1	
TOTAL	25	100.0	6	100.0	31	100.0	

* Retirees, students and housewife.
** Siblings, grandchildren and nephews.

Table 2. Mean and standard deviation of the variable age according to the ingestion of alcoholic beverage

	Drinks alcohol	N	Mean	Standard deviation	p-value[1]
Age	No	25	70.76	14.01	0.003*
	Yes	6	48.67	18.85	
	Total	31	66.48	17.17	

1- p-value of the t-test

Regarding the cause of blindness, more than 50% of the participants reported to have acquired it, the main causes being retinal detachment, glaucoma, cataract and occupational accident. Regarding alcohol consumption, 81% did not drink alcoholic beverages and only 19% stated that they had eventually consumed alcoholic beverages. Some participants reported alcohol use during adolescence. Among the participants who consumed alcohol, 83.3% presented low risk and 16.7% presented hazardous risk. No participant had dependence. The variables gender, marital status, schooling, family income, and people with whom the participant lives did not present statistically significant differences in relation to alcohol use, but the variables occupation and religion presented statistically significant differences; all participants who do not drink alcohol, have no employment, and among those who drink alcohol, 83.3% are Catholics and 16.7% are Spiritist.

DISCUSSION

Regarding age, the data presented in the sample of this study resemble those presented in the last Brazilian census, in which blind people were in the age group above 65 years (Oliveira, 2012). Although it was not the purpose of the study, some participants reported alcohol consumption during adolescence, which corroborates with a study carried out with blind people that described the childhood onset of alcohol consumption (Pagliuca *et al*., 2009). It should be emphasized that the results presented here showed a relationship between alcohol use and age, in which the participants who consume alcohol are younger than the participants who do not use the substance. In the United States, a study found that young people with disabilities between the ages of 18 and 24 use heroin and cocaine more frequently than those without disabilities.

Table 3. Level of consumption, signs and symptoms and consequences related to the consumption of alcoholic beverages

	N	%
1) How often do you drink alcohol		
1. Once a month or less	2	33.3
2. Twice to four times a month	3	50.0
3. Twice to three times a week	1	16.7
2) How many units of alcohol do you drink		
0. 1 or 2 units	3	50.0
1. 3 or 4 units	3	50.0
3) How often have you have two or more drinks		
0. Never	5	83.3
2. Once a month	1	16.7
4) Inability to stop drinking once started		
0. Never	6	100.0
5) Failed to fulfill a commitment due to drinking		
0. Never	6	100.0
6) Need to drink in the morning to feel better		
0. Never	6	100.0
7) Guilt or remorse after drinking		
0. Never	5	83.3
1. Less than once a month	1	16.7
8) Frequency that you could not remember what happened the night before because of drinking		
0. Never	6	100.0
9) Have you or somebody else been injured as a result of your drinking		
0. No	6	100.0
10) You have anyone ever worried about you because of your drinking or have someone ever told you to stop drinking		
0. No	4	66.6
2. Yes, but not in the last year	1	16.7
4. Yes, during the last year	1	16.7

In turn, adults over the age of 35 use more sedatives and tranquilizers than those of the non-deficient peers (Gilson *et al*., 1996). The group of people with disabilities generally uses more psychoactive substances than the general population. It is estimated that this group is more likely to have experienced drug abuse than people without disabilities (Gilson *et al*., 1996; Krahn *et al*., 2006). Regarding the gender, no association with alcohol consumption was identified, although the majority of study participants who reported drinking were male, as observed in a study conducted with 207 users registered in a Family Health Unit, where hazardous risk of alcohol consumption is strongly associated with males (Silva *et al*., 2014). Several social and cultural factors contribute to this prevalence, since the custom of men having to prove their masculinity to society with certain attitudes, among them, alcohol consumption, comes from ancient times (Moretti-Pires and Corradi-Webster, 2011). In this study, no relationship was identified between alcohol consumption and cause of blindness. This diverges from the results pointed out in a study on the incidence and prevalence of alcohol and other substances among people with different types of disability that showed that people with acquired disabilities have significantly higher chance to consume alcohol than those with congenital deficiency (Moore *et al*., 1994). A study on prevalence and risk factors for illicit drug use among people with disabilities showed that, when compared to the general population, the group of people with disabilities showed higher use of illicit drugs. The study also found that individuals with family members that have substance abuse problems were more likely to use such substances and that age, gender and income were significantly associated with illicit drug use. Younger men are more vulnerable. People with disabilities believed they had more right to use illicit drugs because of their disability (Moore and Li, 1998). Thus, the findings of this research differ from the results presented, as it considers disability as a risk factor for alcohol consumption, whereas in the present study only one participant reported that he consumed alcohol because he felt embarrassed about being blind.

Regarding the variable marital status, there were no statistically significant differences; however, it is noteworthy that among the participants who consume alcohol, most were single. Study showed that being married or maintaining a stable relationship is associated with a reduction in alcohol consumption (Karlamangla, 2006). The variables schooling and family income also did not present a statistically significant relationship with alcohol use, but among the participants who consumed alcoholic beverages, only 16.7% had complete secondary education, and all had income between 1 and 3 minimum wages, which indicates low schooling and low income. In Brazil, there was a reduction in the illiteracy rate among people with disabilities between 2000 and 2010, but 61.1% of these people are still uneducated or have incomplete primary education (Oliveira, 2012). Based on the results of the study, occupation was associated with alcohol consumption. Among the participants who did not drink alcoholic beverages, 100% have unpaid occupations, and those who drink alcohol, 33.3% have paid employment. Another study carried out with users of the Family Health Unit presented in their findings the variable occupation as associated with hazardous risk of alcohol consumption (Silva *et al*., 2014). A statistically significant association of religion with alcohol use was found, in which none of the evangelical participants drink alcohol. This corroborates a study that identified an association between religion and alcohol consumption, because among users who presented hazardous risk of consumption, 57.1% did not follow any religious doctrine (Silva *et al*., 2014). In addition, another study presented the religion as a protective factor against the use of psychoactive substances (Wallace *et al*., 2003). Regarding the level of consumption, signs and symptoms of dependence and consequences of alcohol use, we verified in the study that the participants presented a frequency of use compatible with hazardous risk of use and showed no signs of dependence, nor did they have serious consequences of the use of alcohol. These data are relevant, as they guide family health strategy professionals in the implementation of more effective interventions to this group. It is important to emphasize that

the study did not investigate the relationship between blindness and alcohol consumption, but the results point to factors that may be associated with alcohol use. Therefore, the study identified that blind people registered in family health units are mostly men, elderly, with acquired blindness, married, and without paid occupation. The variables age, religion and occupation are associated with alcohol consumption among blind users registered in the family health unit.

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