

# Depressive Symptoms and Alcohol and Drugs Consumption in the Female Universe

ORIGINAL

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## Abstract

**Background:** The consumption of psychoactive substances has been historically associated to the male population but, there is evidence that the harm caused by these substances are more intense in women, including psychiatric disorders.

**Objective:** To analyze the association between depressive symptoms and alcohol and drugs in the female universe.

**Method:** This is a descriptive, exploratory and cross-sectional study with a sample of 23 women. Data collection was conducted in August and September 2015, in the Basic Health Units of the municipality of Picos -PI. The project was approved by the Research Ethics Committee.

**Results:** Predominant age group of 20 to 39 years, of which 39.1% were married and 56.5% are in work activities. We found an association between depressive symptoms and alcohol use ( $p = 0.031$ ) and other drugs ( $p = 0.042$ ) and showed that women with depressive symptoms exhibited a pattern of heavier alcohol consumption (mean = 9.36 points).

**Conclusion:** It is necessary to train professionals in order to identify the main risk factors, enhance prevention and improve care.

## Introduction

The consumption of Psychoactive Substances (SPA) has been historically associated to the male population but, over the years, women have played a considerable consumption of those substances, that

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## Keywords

Depression; Women; Drugs.

draws attention from the authorities, the scientific community and society.

The indiscriminate consumption of alcohol and drugs is a serious public health problem, especially by the social, physiological and psychological repercussions they are associated with [1]. There is evidence that the harm caused by these substances are more intense in women, considering the existence of significant differences in body composition of men and women, in terms of fats and fluids. Thus, women are more likely to suffer psychiatric disorders associated with drug use, compared with the opposite gender [2].

While, in a timely manner, there is a causal link between the consumption of alcohol and other drugs, and the development of mental disorders, it is necessary to understand that this phenomenon also conversely occurs, since mood disorders greatly increased the risk of abuse of alcohol and other drugs [3].

The co-occurrence of mood disorders and SPA consumption in women is recognized by the various institutions of mental health attention, especially those with exacerbation of depressive symptoms [4-5]. In this sense, the Basic Health Units (UBS) should be prepared to assist and refer these patients, performing a network service.

Thus, it is considered relevant to investigate the problems exposed above in order to contribute to the development of coping strategies of this phenomenon and minimizing the consequences that are related. Considering the presented context, this study aimed to analyze the association between depressive symptoms and the consumption of alcohol and drugs in the female universe.

## Method

This is a descriptive, exploratory and cross-sectional study, developed through an epidemiological investigation. This research was developed in 12 Basic Health Units (UBS) of the municipality of Picos, located in the State of Piauí, Brazil.

Sampling by convenience consists of 23 women met in eight UBS located in the urban area and four in the rural areas, chosen by random selection. As inclusion criteria, it was defined: women, aged 20-59 years, living in the urban or rural areas of the municipality of Picos-PI and being able to answer the research questions. In turn, teenagers and elderly were excluded from the study.

Data collection was carried out during the period from August to September 2015, and the variables addressed were sociodemographic issues, the pattern of alcohol consumption, through the *Alcohol Use Disorders Identification Test* (AUDIT) [6], the pattern of consumption of other drugs aided by *Non-student drugs use questionnaire* (NSDUQ) [7]. The trace of depressive symptoms was evaluated by the Beck Depression Inventory (BDI) [8]. It is noteworthy that all scales are translated and validated in Brazil.

For data analysis, we used the double typing process in Microsoft Excel spreadsheets and further analysis in the *Statistical Package for the Social Science* (SPSS) software, version 20.0. Descriptive statistics were carried out as measures of central tendency (single frequency and average) and dispersion measures (standard deviation), *Kolmogorov-Smirnov* test, and for the comparison of averages between categorized groups in qualitative variables we have used the t test of *student*. To investigate the association between qualitative variables, the chi-square test and Fisher's exact test were carried out. To perform the associations, we used the correlation coefficient of *Spearman* (parametric data).

The study was approved by the Ethics and Research Committee, meeting all the formal requirements regarding the conduct of studies involving humans. Each participant received detailed information about the research and signed a Terms of Consent - TCLE, where the anonymity right was guaranteed, as well as the freedom to participate in the research or quit it at any time.

## Results

Women interviewed had an average age of 29.9 years (DP = 7.8) and 87% of them were between 20-39 years old. Of the women interviewed, 39.1% were married and 34.8% lived in stable union. As for the children, 73.9% were mothers. Regarding the routine work, 56.6% had work activities. As for the religion, 87% were Catholic. In terms of monthly income, there was an average of R\$ 561.40 and standard deviation of 496.20.

On **Table 1** we presented the association between the BDI score and the variables of age group, alcohol use and use of other drugs. The results show that there is an association between depressive symptoms and the use of alcohol ( $p = 0.031$ ) and other drugs ( $p = 0.042$ ).

On **Table 2** there is the comparison of age and score from the AUDIT of women with and without

**Table 1.** Association between depressive symptoms with age group, use of alcohol and other drugs (n = 23). Picos-PI, Brazil, 2015.

Variables	BDI score		p-value
	With out depressive symptoms n(%)	With depressive symptoms n(%)	
Age group			
Young Adult	11 (91.66)	9(81.82)	0.466*
Mature Adult	1(8.34)	2(18.18)	
Total	12(100)	11(100)	
Use of alcohol			
With out dependence	12(100)	6(54.55)	0.031**
With some dependence	0(0)	5(45.45)	
Total	12(100)	11(100)	
Use of other drugs			
No	6(50)	2(18.18)	0.042**
Yes	6(50)	9(81.82)	
Total	12(100)	11(100)	

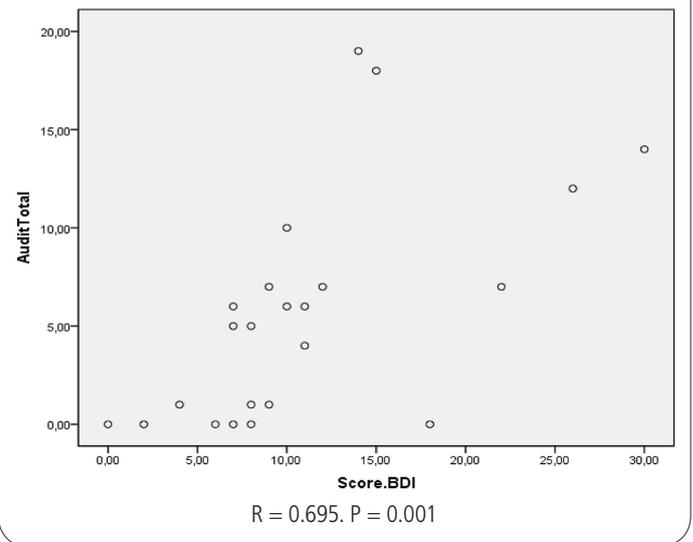
The p-value was obtained by \*: Fischer's Exact.  
\*\*: Chi-square of Pearson tests.

**Table 2.** Comparison of average of age and AUDIT score with BDI score (n = 23). Picos-PI, Brazil, 2015.

Variables	BDI score				p-value**
	With out depressive symptoms		With depressive symptoms		
	n	Average(DP*)	n	Average(DP)	
Age	12	29.66 (6.86)	11	30.27 (9.05)	0.587
Score from the AUDIT	12	2.16 (1.85)	11	9.36(5.88)	0.001

\*: Standard Deviation, \*\*: Student's t-test.

**Figure 1:** Correlation between BDI score and AUDIT score (n = 23). Picos-PI, Brazil, 2015.



depressive symptoms. It was found that there is a statistically significant difference in the average, only of the score from AUDIT ( $p = 0.001$ ). The results showed that women with depressive symptoms had a pattern of heavy alcohol consumption (average = 9.36 points) when compared to those who did not have symptoms of depression (average = 2.16 points).

**Figure 1** ratified the findings presented in Table 2 from Spearman Correlation test performed between quantitative variables: score of BDI and AUDIT. From the graph it was found that there is a moderate correlation between these variables ( $p = 0.001$  and  $r = 0.695$ ) demonstrating that the more

intense is the consumption of alcohol, the more aggressive are the depressive symptoms reported by the women studied.

## Discussion

The results of this study point to the predominance of women aged between 20 and 39 years (87%). Similar data were found in a study of women who sought care in a Psychosocial Care service in the city of Teresina-PI, being most participants 19 years old (53.4%) [9]. Another survey conducted in three municipalities of the Paraná State showed that 12 SPA users interviewed were aged between 17 and 33 years [10].

A qualitative study developed in a UBS located in a central community in the city of Salvador, Bahia State, showed that one of the aspects that marks difference in the direct or indirect involvement of women with drugs relates to their age group. For most community health workers (CHW), young women tend to engage directly with drugs, while older women have an indirect involvement [11].

A qualitative study revealed that women initiated the use of SPA in their adolescence, when they were aged between 12 to 18 years, and between such substances, most of them cited tobacco and alcohol [10]. Reflecting on the precocity of this practice among women, the quantitative study explains that the early use of alcohol makes women more susceptible to the development of several comorbidities, giving rise to certain clinics concerns [12].

As for the socioeconomic characteristics of the interviewees in this study, there was congruence with the results of other studies of women who were treated at UBS, demonstrating that they are, mostly, young, married, with monthly income around one minimum wage and that they make use of cigarettes and alcohol, preferably [9, 10, 13].

Similar data were also found in a study of women who looked for assistance in the UBS 'Belo Horizonte' in the city of Presidente Prudente - SP,

where the majority of women (57%) was married or lived together in a stable relationship and, as the occupation of these women, 39% of them worked in companies [14].

In relation to a study carried out with 12 pregnant women living in three cities of the Northwest of Paraná - Maringa, Sarandi and Paiçandu - with medical record, or done by a nurse, claiming that they presented acute or chronic drug intoxication, there was divergence when compared to the professional occupation variable, which showed that none of the respondents exercised paid economic activity. During the hospitalization, there was violent behavior or they showed signs and symptoms consistent with drug withdrawal, and they were diagnosed with chronic intoxication by drug abuse [10]. This study showed that the degree of dependence of participants influences the working variable.

As for other sociodemographic characteristics, a survey of 110 medical records of women who have been in care in an outpatient psychiatric service corroborated this study, as most women are also mothers (92.6%), having some schooling level (96.3%), and regarding their religion, 51.9% were Catholic, as found in this study [2].

When we realized the association of BDI score with age group, use of alcohol and use of other drug variables, we found a statistically significant relationship between depressive symptoms and alcohol consumption ( $p = 0.031$ ), and depressive symptoms and other drugs ( $p = 0.042$ ). Thus, there is an association indicating that women who use alcohol and other drugs are more likely to present depressive symptoms.

Studies corroborate this finding and claim that women with alcohol dependence have a deficit in self-esteem, which is manifested by remarkable anxiety, motivation and behavior problems. In this sense, it is stated as the most frequent psychiatric comorbidities: anxiety disorders (social phobia, simple phobia and post-traumatic stress disorder) and mood disorders (depression and mania) [15, 16].

Similarly, other studies of comorbidities found that women who are alcohol users have anxiety disorders and depression as the most frequent psychiatric diagnoses [17-18].

In a study carried out in a Brazilian Northeastern capital, which aimed to determine the frequency of the association between common mental disorders and alcohol dependence, it was found that in a sample of 332 respondents, only 40 of them did not use alcohol, and of those 232 (88%) who consumed alcohol, 86 (25.6%) presented common mental disorders such as depressive-anxious mood, somatic symptoms, vital energy decrease and depressive thoughts [19].

Regarding the use of other drugs, it is clear that drug addicts have more possibilities to present psychiatric disorder when compared to individuals who do not use drugs, and the identification of this association is of paramount importance for the prognosis as to the proper treatment of the patient [20].

Study corroborates this fact, since it interviewed 415 adolescents, of whom 52.3% were women and 32.3% of them made use of psychoactive substances, and this study found that adolescents aged 12 and 14 years, who used drugs, had 2.5 and 1.5 times greater risk of psychological disorders, respectively, especially for crack users, who had 4.27 times more likely. It is clear, therefore, the severe association of using SPA and the development of mental disorders [21].

The comparison of the age average and AUDIT score with the BDI score presented a high prevalence of AUDIT average in women with depressive symptoms. This is confirmed in other research that found a significant association between substance addiction and mental health problems [19].

These data point an association and correlation between the BDI score and the AUDIT score. To the extent that the scores obtained in the AUDIT increased, the scores identified in the BDI also had a considerable growth, so these are factors directly

proportional. Corroborating this finding, a qualitative study, carried out from articles published in four Brazilian magazines, reported that depression is one of the conditions resulting from the consumption of licit drugs by the female population [22].

Understanding the use of drugs in health, specifically women's health, we need to go beyond the biomedical dimensions, in a broader perspective of the health / disease process, covering the specificities of women as a social subject [22]. In this sense, a qualitative study carried out from articles published in four Brazilian magazines, reported that depression is one of the conditions resulting from the consumption of licit drugs by the female population [22]. With this, women should be seen not only with the uniqueness of their disorders, but in the plurality of their everyday reality, developing actions involving their professional, family and affective life.

## Conclusion

Women with depressive symptoms present a more intense pattern of alcohol and drugs consumption when compared to those women who do not present these symptoms. There is also a moderate correlation between these variables], demonstrating that the more intense is the consumption of alcohol, the more aggressive are the depressive symptoms.

Studies like this are important to know the profile and pattern of consumption of SPA by women, as well as the effect of these substances on their mental health, as well, it becomes possible to develop effective strategies to assist this population, as well to allow the construction of public policies for these users.

Set public policy changes in the service to patients that make use of drugs requires a behavioral change, that is directly linked to a strategy to reduce individual risks and peer groups risks, which must be able to influence change of beliefs and social norms. A strategy that reaches all the facets that addiction imposes on users.

Therefore, it is essential to carry out actions of prevention and information. Women require clear and detailed information on the use and effects of SPA. Woman who uses drugs must be seen as a woman who needs help and specific care.

Finally, it is essential to qualify professionals able to identify the main risk factors, and enhance successful practices, contributing for these actions to be increasingly close to the women's needs.

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