

## ORIGINAL RESEARCH

# Nursing students' attitudes towards alcohol, alcoholism and alcoholics: A study of a brazilian sample

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## Abstract

**Objective:** Various international studies have reported on negative attitudes of nurses and nursing students towards substance misusers and have found that this issue receives little attention in professional nursing education. This research examined attitudes towards alcohol, alcoholism and alcoholics in a Brazilian nursing student sample and analyzed associations between these attitudes and participants' socio-demographic characteristics.

**Methods:** Study participants were 144 last-year undergraduate students from two private colleges. A scale of attitudes towards alcohol, alcoholism and alcoholics was used for data collection.

**Results:** The results showed that most participants had positive attitudes towards alcohol, alcoholism and alcohol addicts. In addition, gender, age and the number of hours participants spent in lectures on alcohol and other drugs during their education were associated with positive attitudes towards their work and interpersonal relationships with alcoholics. This association was stronger in females (OR = 3.42), younger participants (OR = 2.18) and students who received more lecture hours on alcohol and other drugs during their education (OR = 3.53).

**Conclusion:** In conclusion, the authors suggest that education and preparation in coping with alcohol problems increase nurses' abilities at work and support more positive attitudes towards alcoholic clients. In addition, this study demonstrated that a significant part of students had negative attitudes towards alcohol, alcoholism and alcohol addicts, despite the fact that positive attitudes prevailed in their schools. These results reflect the lack of importance granted to drug issues in undergraduate nursing curricula in Brazil.

## 1 Introduction

According to a global health report (2007), alcohol was responsible for 4% of the morbidity burden and 3.2% (1.8 million) of global deaths in 2000. Among the 26 risk factors assessed by WHO, alcohol ranked fifth in terms of risk factors for premature deaths and disabilities. In the year 2000, alcohol was the most important health risk factor in the Americas, in developing countries, including Brazil and Mexico, as well as in developed countries like the United States and Canada. Alcohol consumption in the Americas is approximately 40% higher than the global average, which may justify the fact that the continent is the only region in the world where alcohol was ranked first as a risk factor for premature deaths and disabilities <sup>[1]</sup>.

In Brazil, a large survey carried out in the country's 108 biggest cities<sup>[2]</sup> identified that 12.3% of people between 12 and 65 years of age were alcohol-dependent, and that 74.6% had already consumed alcohol in their life. As for the use of other drugs, the same study appointed that 44% of the population had used tobacco, 8.8% cannabis, 6.1% solvents, 4.1% appetite inhibitors, 2.9% cocaine and 0.7% crack cocaine, verifying a rapid increase in the use and misuse of legal and illegal psychoactive drugs in Brazil in the last five years. This phenomenon has contributed to growing physical, psychic and social problems, causing a rise in health care demands related to psychoactive substance use and misuse, mainly alcohol. Hence, this has increased nurses' contact with this population, a phenomenon that has demanded nursing skills to deal with this problem<sup>[3,4]</sup>.

Despite this new demand on Brazilian nursing practice, various studies<sup>[3-5]</sup> have appointed that Brazilian nursing students are not being adequately prepared for care delivery and for coping with drugs-related problems. These professionals received a limited amount of drug and alcohol education as part of their preparation for practice<sup>[3]</sup>. This phenomenon has been observed not only in Brazil. Studies in the United States<sup>[6]</sup>, Australia<sup>[7]</sup> and England<sup>[8]</sup> reveal that content related to substance use and misuse education in nursing curricula is inadequate. The lack of preparation to work with substance misusers, including alcohol addicts, can lead to negative attitudes in nurses and nursing students when confronted with situations involving the use of alcohol and other substances<sup>[10]</sup>, which ultimately influences care delivery in quantitative and qualitative terms<sup>[4,6,10]</sup>.

Despite studies in other countries for over two decades<sup>[10,11,12]</sup>, in Brazil, little research has been done on nursing students' attitudes towards substance misuse-related issues, with a consequent lack of publications in Brazilian literature<sup>[4,5]</sup>. This fact has made specialists in the area recommend further research with a view to identifying nurses and nursing students' attitudes towards substance misusers and how substance-related problems should be dealt with in Brazil.

## 2 Background

Nurses represent the main group of health professionals and experts have appointed their important role in the prevention, early detection and treatment of alcoholism<sup>[4,5,10,11]</sup>. There is evidence about the significant influence of these professionals' attitudes towards substance misusers on their willingness to intervene and the quality of such interventions<sup>[9,10]</sup>. Research has revealed that nursing students have demonstrated negative attitudes towards substance misusers. It has also been observed that contact with these patients during education enhances students' acceptance of misusers<sup>[9,11]</sup>. Tanlyn<sup>[12]</sup> examined the association between personal alcohol consumption, family history of alcoholism and the effect of a three-hour seminar on nursing students' attitudes towards alcoholics. That author found higher agreement levels with the view that emotional and psychological problems contribute to the etiology of alcoholism in the group that had participated in training when compared with the control group. Two months later, however, no significant differences were found between students with training and students in the control group with regard to attitudes towards alcoholics. Farnsworth and Bairan<sup>[11]</sup> assessed the effects of a program that comprised four to five hours of reading, in combination with clinical experiences with substance misusers, on nursing students' attitudes towards alcoholics. The results showed an attitude change with regard to skills and satisfaction to work with alcoholics, and that students started to perceive alcoholics as solitary, sensitive people, in doubt about their own value and suffering from severe emotional problems. Feigenbaum<sup>[13]</sup> submitted nursing students to seven hours of weekly training on substance misuse and clinical experiments with substance abusers during the five years of their undergraduate nursing course. The attitudes of students who completed the training were examined during the entire period, and it was observed that 79.5% of students changed towards more positive attitudes. Rassool and Rawaf<sup>[8]</sup> assessed the impact of an educational program about alcohol and drugs on knowledge acquisition and attitude changes in nursing students. The findings suggested that the program affected the nursing students' attitudes toward substance misusers, as most participants showed more positive attitudes towards substance misusers in the post-test and were more optimistic, considering alcohol and drugs addiction as a treatable disease. A study carried out in Brazil<sup>[14]</sup> to examine nursing students' knowledge and attitudes towards substance misusers evidenced students' positive attitudes towards substance misusers, as most participants rejected the stereotype that

substance abusers are unpleasant to work with and that alcoholism is related with a weak character. An analysis of literature on nursing students' attitudes towards alcohol and drugs-related issues confirms observations about little research on this issue in Brazil, as shown by the lack of publications on this subject in nursing literature. In view of the above, this research aims to examine attitudes towards alcohol, alcoholism and alcoholics in a sample of Brazilian nursing students, analyzing its association with participants' socio-demographic characteristics.

### 3 Method

This descriptive and exploratory study was conducted with a sample of 144 last-semester (fourth year) undergraduate nursing students from two private schools in a city in São Paulo, Brazil. In this group, 84 students belonged to "School A" and 60 students to "School B". Sample inclusion criteria were: students in the last year of the undergraduate course and acceptance to participate in the research.

#### Ethical considerations

The ethical aspects observed in this research were the approval of the project by the Institutional Review Board at the University of São Paulo Medical School Hospital das Clínicas and the subjects' signing of the free and informed consent term.

### 4 Measurement instrument

The "Attitude Scale Towards Alcohol, Alcoholism and Alcoholics" (ASTAAA) was used for data collection. This scale was developed and validated in Brazil<sup>[15]</sup> and consists of 84 items, divided into the following five factors: Factor 1: Work and interpersonal relations of the alcoholic; Factor 2: Etiology (alcoholism); Factor 3: Alcoholic drinks. The internal consistency of this scale was 0.90 (Cronbach's Alpha). Item-score correlations varied from 0.35 and 0.65, with an average of 0.50. Data regarding psychometric analyses of this metric showed that it adequately measured professional attitudes towards alcohol, alcoholism and alcoholics. According to the authors who created this scale 15, individuals who score high on the ASTAAA tend to adopt positive attitudes, while those with low scores tend to adopt negative attitudes. Together with the attitude scale, the Demographic Profile Questionnaire (DPQ) was administered. The DPQ consists of two sections. Section 1 consists of questions related to the students' demographic characteristics (gender, age, race, and religion). Section 2 covers areas related to instructions the students received with respect to alcohol and other drugs during the nursing education program (school, workload devoted to the theme of alcohol and other drugs during the undergraduate program).

#### 4.1 Procedure

The subjects received the instrument in their classroom in a single booklet, containing the 84 questionnaire items in random order. The questions could be answered using a three-point Likert scale, where students should express their opinion about each assertion as follows: (1= Disagree; 2 = Indifferent; 3 = Agree). Maximum time to answer the instrument was less than 30 minutes and all subjects agreed to participate in the research.

#### 4.2 Data analyses

The data were analyzed as follows: First, a basic statistical analysis was performed to identify the mean, median, standard deviation and relative frequency of each factor to be identified. Second, as the sample predominantly included white females, the data were examined both with and without males and non-white subjects, to determine whether the inclusion of these subjects influenced the pattern of findings. To check for differences in average scores for the three ASTAAA factors, between the groups formed by men, women, whites and non-whites and interactions between gender and race, a general linear model was used.

To investigate the possibility that the nursing students' socio-demographic characteristics influenced participants' responses, binary logistic regression analysis was performed. This resource was used to estimate the Odds Ratio (OR), with 95% confidence intervals in each of the three factors analyzed. The first step was to classify the 144 nursing students into two groups, according to their scores on each of the three factors. Group 1 included participants with scores below the median scores of each factor, whereas Group 2 included participants with scores that were higher or equal to the median for each factor. Students scoring higher than the median were considered to have a positive attitude. Those scoring below the median were considered to present negative attitudes.

Data were analyzed after the subjects were categorized into these two groups. Binary logistic regression was used to identify the predictor variables that significantly influenced the participants' scores. The variables investigated in this study were gender, age, school, race and the number of hours of lectures on the subject of alcohol. All statistical tests were conducted using the Statistical Package for Social Science (SPSS) version 18.0 for Windows.

## 5 Results

### 5.1 Sample characteristics

The sample was mostly female (85%), with an average age of 27.4 years (SD=6.82), single (68%), white (89%). As to their preparation to work with substance misusers, participants answered they received between two and four hours of classes about the theme during their undergraduate program.

### 5.2 Nursing students' attitudes

The findings showed that the sample's median score for Factor 1 (alcoholic: work and interpersonal relations) was 101; for Factor 2 (alcoholism), the median was 22, and for Factor 3 (alcoholic drink), it was 32 (see Table 1).

No strong difference was observed in the percentage of nursing students scoring above and below the median. However, for all factors, there were many scores above the median. The percentage of nursing students who scored above the median was 57% for Factor 1, 53% for Factor 2, and 54% for Factor 3. These findings suggest that positive attitudes predominated in issues related to alcohol, alcoholism and alcohol addicts. In the general linear model, no statistically significant differences were found between the averages of the three factors according to gender and race, nor for the interaction between them.

**Table 1.** Presentation of descriptive statistics related to the scores of EAFAAA, expected and observed in the study in each of the three factors

	Minimum expected score	Minimum score observed	Maximum score expected	Maximum score observed	Average expected	Average observed	SD
F1	32	66	160	144	96	101	4.5
F2	20	13	100	33	60	22	3.6
F3	12	16	60	44	36	32	4.8

The analysis of the association between the study variables (age, race, school, gender, religion and the number of hours dedicated to subjects related to alcohol and other drugs during undergraduate education) using binary logistic regression showed no significant association between the student responses to the Factors 2: (Etiology - alcoholism); and 3: (Alcoholic drinks).

A statistically significant association was found between student responses to Factor 1 (work and interpersonal relations with alcoholics) and the variables gender, age, and hours dedicated to the study of alcohol and other drugs issues. The predictors of this association were found in females (OR = 3.42), younger participants (OR = 2.18) and students who had received more hours of instruction focusing on alcohol and other drugs (OR = 3.53) (see Table 2).

**Table 2.** Regression data Factor 1

Variables	OR	CI 95%	P-value
Age			
≤ 27	2.18	(4.59-1.55)	0.22
>27	1.00		
Gender			
Female	3.42	(2.20 – 0.27)	0.012
Male	1.00		
Race			
White	0.81	(0.55-1.74)	0.000
Non-white	1.00		
School			
School A	0.52	(0.63 – 0.77)	0.000
School B	1.00		
Hours of lectures			
≤ 3 hours	1.00	(0.47 – 1.06)	0.019
> 3 hours	3.53		

## 6 Discussion

A number of studies<sup>[8, 16]</sup> have indicated that training on drugs and alcohol in Brazilian undergraduate nursing education is inadequate. The present study data support this observation. Most participants revealed that the class and training time required to work in this area did not exceed three hours during the undergraduate program, less than the average time devoted to drug and alcohol education in earlier studies, which ranged from four to six hours<sup>[5, 8, 16]</sup>. As earlier research involved samples of public college students<sup>[4, 5]</sup>, these results demonstrate that alcohol and other drugs have received even less attention at private colleges. This fact is a source of concern when considering that most nursing schools in Brazil are affiliated with private colleges.

The analysis of the percentages of participants who scored above the median on the three factors studied shows a slight predominance of positive attitudes towards alcohol, alcoholism and alcohol addicts, indicating that participants are in favor of drinking, agree that people should drink if they want to and consider drinking to be normal<sup>[15]</sup>. These attitudes, however, seem to be restricted to moderate alcohol use; according to the same students, some people drink and are able to control their alcohol intake, whereas others are not, indicating that this attitude does not extend to people who are not able

to control this behavior. Despite their positive attitudes towards moderate alcohol use, students do not consider alcohol use to be risk free and are in doubt as to whether small alcohol doses can cause addiction. Despite the presence of above-median scores for all factors, the percentage of students who scored below the median was significant, ranging between 43% and 47%. This result is consistent with the notes of Howard and Chung<sup>[17]</sup>, who concluded that, although recent changes have enhanced nurses' acceptance of misusers, a significant number of nurses still consider alcoholics are immoral, have a weak character and a small probability of recovery. Whereas the percentage difference between the two groups (positive versus negative attitudes) was small, the methods used in this study may not have been able to detect possible differences between these groups or other variables that influenced attitudes. Hence, further studies of this kind are needed to clarify these issues.

As researchers have highlighted in recent decades<sup>[9, 11-13]</sup>, the number of undergraduate lectures on drugs and alcohol exerts a positive influence on students' attitudes towards alcohol addicts. The results of this study indicated that students with the largest number of lectures on alcohol and other drugs showed an OR value of 3.53, indicating that these students have more positive attitudes towards alcohol addicts than those who reported having participated in fewer hours of lectures on alcohol and drugs during their education.

The general linear model analysis showed no significant influence of gender and race on the participants' mean scores in the three factors. However, when analyzing the association between participants' gender and attitudes through binary logistic regression, a significant association was found between gender and positive attitudes. In addition, females were more likely to have a positive attitude towards alcohol (OR=3.42) than male students. A positive influence of age on students' responses was also found; younger students were more likely to have positive attitudes towards alcoholics (OR=2.18). Research by Hagemaster et al.<sup>[10]</sup> revealed similar results, showing that older participants were more prone to negative and stereotypical views of alcoholics than younger nurses.

This study had many limitations, including the sample size and the fact that it was conducted in just two private nursing schools in one region of Brazil, indicating that the results cannot be generalized. Future studies should consider including other socio-demographic and behavioral variables. Most of the variables examined in this study were not significantly associated with the students' attitudes and thus, other factors, such as participants' alcohol and drugs consumption should be examined to determine whether these factors influence the study results. Despite these limitations, this study presents advances in Brazilian and international nursing and significantly contributes to the Brazilian literature. The results of this study are particularly useful in view of the lack of research on nursing and nursing students' attitudes towards alcohol and drugs use in Brazil and Latin America. Moreover, this research examines attitudes in regions and institutions that have not been studied yet. Thus, it contributes to knowledge in this area by providing data that can support future research on nursing teaching and care with regard to substance misuse.

The first Brazilian conference for mental health nurses and addiction specialists on drugs and alcohol, which was held in 2000 at the University of São Paulo, hosted countless discussions and resulted in many recommendations. Although integrating and including substance misuse content was considered a priority in nursing curricula at that time<sup>[18]</sup>, little has been achieved in Brazil in this respect. Ten years after these recommendations, schools have incorporated few of the recommendations, and those that did were primarily public schools. Hence, one could say that private schools continue paying little or no attention to substance misuse in nursing education. Brazilian addiction specialists need to pressure authorities to incorporate expert recommendations into nurse education laws, as the recommendations are currently not obligatory in course curricula and hence, remain secondary priorities at most training institutions.

## 7 Conclusion

Age, sex and the number of hours spent in lectures on alcohol and other drugs during education were significantly associated with positive attitudes towards work and interpersonal relationships with alcoholic addicts. Although positive attitudes towards alcohol, alcoholism and alcohol addicts prevailed, a significant percentage of students scored below the median. This may reveal that the nursing students had some bias toward persons that used alcohol. Therefore, more attention should be paid to alcohol issues in the curriculum, and the theme could be addressed through a sensitivity training to work with this population.

These results may reveal that drug issues are not considered important in undergraduate nursing curricula in Brazil. In addition, these results highlight observations that education and preparation to cope with alcohol problems increase nurses' ability to work in the area and to support more positive attitudes towards this clientele. This study confirms observations from earlier studies that little attention has been paid to alcohol problems in Brazilian nursing education. This research also reveals that the situation is even more concerning in private schools, as the number of hours these schools dedicate to the issue is lower than that observed in public school samples. The issue of drug and alcohol problems needs to be considered in private schools because these study results indicate that workloads assigned to alcohol problems positively affect students' attitudes towards patients using these substances.

## Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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