

# Alcohol use and spirituality among nursing students

USO DE ÁLCOOL E ESPIRITUALIDADE ENTRE ESTUDANTES DE ENFERMAGEM

USO DE ALCOHOL Y ESPIRITUALIDAD ENTRE ESTUDIANTES DE ENFERMERÍA

Sandra Cristina Pillon<sup>1</sup>, Manoel Antônio dos Santos<sup>2</sup>, Angélica Martins de Souza Gonçalves<sup>3</sup>, Keila Maria de Araújo<sup>4</sup>

## ABSTRACT

The purpose of this cross-sectional study was to investigate alcohol use and the levels of spirituality among nursing students. The tests used were the Alcohol Use Disorders Identification Test and the Spirituality Scale. Participants were 191 (80.2%) nursing undergraduates from a city in the state of Minas Gerais, 75.4% of which were female, average age 25 years, and 149 (78%) were Catholic. As for alcohol use per gender, 117 (75%) women used alcoholic beverages and 33 (56.9%) had a drinking problem ( $p \leq 0.05$ ), against 25 men (43.1%). Low scores for spirituality levels were found in the sample: in average, women had lower scores compared to men (12.7 against 13.5). Comparing the level of spirituality with having a drinking problem, it was observed that students with low risk alcohol use had lower levels of spirituality. In conclusion, spirituality may not function as a protecting factor for alcohol use, hence this behavior may be under the control of other variables.

## KEY WORDS

Students, nursing.  
Women.  
Alcoholism.  
Spirituality.

## RESUMO

O objetivo deste estudo transversal foi investigar o uso de álcool e níveis de espiritualidade entre estudantes de Enfermagem. Aplicou-se o Teste de Identificação do Uso do Álcool e a Escala de Espiritualidade. Participaram 191 (80,2%) estudantes do curso de Enfermagem de uma cidade do interior de Minas Gerais, sendo 75,4% do sexo feminino, idade média 25 anos, 149 (78%) de religião católica. Quanto ao uso de álcool por sexo, 117 (75%) mulheres faziam uso de bebida alcoólica e 33 (56,9%) bebiam em nível problemático ( $p \leq 0,05$ ), contra 25 homens (43,1%). Foi encontrada uma pontuação baixa dos níveis de espiritualidade na amostra: em média, mulheres apresentaram escore menor em comparação aos homens (12,7 vs 13,5). Na comparação entre níveis de espiritualidade e beber problemático, observou-se que estudantes com uso de baixo risco apresentaram menores níveis de espiritualidade. Concluiu-se que a espiritualidade pode não funcionar como fator protetor para uso do álcool, sugerindo que esse comportamento pode estar sob o controle de outras variáveis.

## DESCRITORES

Estudantes de enfermagem.  
Mulheres.  
Alcoolismo.  
Espiritualidade.

## RESUMEN

El objetivo de este estudio transversal fue investigar el uso de alcohol y niveles de espiritualidad entre estudiantes de Enfermería. Fueron aplicados el Test de Identificación del Uso de Alcohol y la Escala de Espiritualidad. Participaron 191 (80,2%) estudiantes del curso de Enfermería de una ciudad del interior de Minas Gerais, perteneciendo 75,4% al sexo femenino, edad media de 25 años, 149 (78%) de religión católica. En cuanto al uso de alcohol por sexo, 117 (75%) mujeres consumían bebidas alcohólicas y 33 (56,9%) bebían en niveles problemáticos ( $p \leq 0,05$ ), en comparación a los 25 hombres (43,1%). Se encontró una puntuación baja de los niveles de espiritualidad en la muestra: en media, las mujeres presentaban puntajes menores en comparación con los hombres (12,7 vs. 13,5). En la comparación entre niveles de espiritualidad y niveles problemáticos de consumo, se observó que los estudiantes con consumo de bajo riesgo presentaron menores niveles de espiritualidad. Se concluye en que la espiritualidad puede no funcionar como factor de protección contra el uso de alcohol, sugiriéndose que tal comportamiento podría estar bajo el control de otras variables.

## DESCRIPTORES

Estudiantes de enfermería.  
Mujeres.  
Alcoholismo.  
Espiritualidad.

<sup>1</sup> Associate Professor, Department of Psychiatric Nursing and Human Sciences, University of São Paulo at Ribeirão Preto College of Nursing. WHO Collaborating Centre for Nursing Research Development. Leader of the Study Group on the Prevention of Harmful Alcohol and Drugs Use (CNPq). Ribeirão Preto, SP, Brazil. pillon@erp.usp.br <sup>2</sup> Ph.D., Professor at the Department of Psychology and Education, University of São Paulo School of Philosophy, Sciences and Languages, University of São Paulo. Ribeirão Preto, SP, Brazil. masantos@ffclrp.usp.br <sup>3</sup> Ph.D. student, Graduate Program in Psychiatric Nursing, University of São Paulo at Ribeirão Preto College of Nursing. Professor, Nursing Department, Federal University of São Carlos. São Carlos, SP, Brazil. angelicamartins@usp.br <sup>4</sup> Professor, Undergraduate Nursing Program, Pontifícia Universidade Católica de Poços de Caldas. Poços de Caldas, MG, Brazil. kmarausp@yahoo.com.br

## INTRODUCTION

Alcohol is the most consumed drug in the world. Data by the World Health Organization (WHO) appoint that approximately two billion people consume alcoholic beverages<sup>(1)</sup>. Problematic use is one of the main factors contributing to precarious global health conditions and is responsible for 3.2% of mortality and 4% of years of service life lost. In Latin American countries, it is estimated that 16% of years of service life lost are related to alcohol consumption. A recent epidemiological study that assessed problematic consumption patterns found levels considered four times as high as the global average<sup>(1)</sup>.

The national study on alcohol use patterns in the Brazilian population identified that 52% of Brazilian older than 18 years drink at least once per year. As for gender, 65% of men and 41% of women consume alcoholic beverages. On the other hand, 48% of Brazilians are abstemious, i.e. never drink or drink less than once per year. In the group of adults who drink, 60% of men and 33% of women consumed five doses or more on the occasion they drank most in the previous year. Among adult men, 11% drink every day and 28% consume alcoholic drinks between one and four times per week – the *very frequent drinkers*<sup>(2)</sup>.

In the above-mentioned survey, alcohol consumption in Brazil was appointed as an important public health problem, particularly among young people. Alcohol use in the young population has started at increasingly young ages<sup>(1-2)</sup>. With regard to the college population, research has been developed in different Brazilian regions to identify the consumption pattern and consequences of using alcoholic beverages and other psychoactive substances<sup>(3-5)</sup>.

Previous studies have verified that students from the health area constitute a population group that deserves a distinguished focus regarding the use of alcohol and other substances, as they represent professionals who, in the future, will work with health issues in the community<sup>(3-4)</sup>. In view of this particularity, prevalence levels of alcohol consumption in the final year of the undergraduate program were the highest among biological science students (93.3%) when compared with human (86.0%) and exact science (92.6%) students<sup>(5)</sup>. Independently of the analyzed courses, another study showed similar results<sup>(6)</sup> when investigating nursing students through the Alcohol Use Disorders Identification Test (AUDIT). Some kind of alcohol use disorder was found in 20.5% of students (score =8 on the AUDIT). In this permissive environment, alcoholic beverages are largely available, giving rise to the idea that, the greater the exposure, the greater the trend to consumption and to risks of developing associated problems<sup>(6)</sup>. It was also evidenced that students with alcohol use disorders got to class later and slept more in the classroom on the days after having gone to parties. Among students considered of low risk for alcohol consumption, 37.6% had consumed more than two

doses on a typical consumption day and 35% had already consumed more than six doses on one single occasion<sup>(6)</sup>.

Attending college parties was also evidenced as an associated factor. In this context, most students had started consuming alcoholic beverages before they got into college. The study authors, however, considered this space somewhat permissive to keep up drinking behaviors<sup>(7)</sup>.

These studies highlight the relevance of identifying alcoholic beverage consumption early, so as to adopt prevention and intervention strategies in the college environment<sup>(3-7)</sup>. Most of the variables associated with alcohol consumption, highlighted by literature, can be prevented.

As nursing course faculty and through empirical in-class observations, the authors found that a growing number of students seek information, mainly on alcohol use. Some students get to class late or sleep in the classroom and, when questioned, reveal that they participated in some party the night before or even that they are planning to go to one, where alcoholic drinks are always present, incorporated in young people's sociability and leisure. College party invitations mention information like *Beer Night: win six beers for the best costume, Open Bar Party, Use of illegal substances prohibited*, which is contradictory, as alcoholic beverage trading and consumption is usually prohibited on college campuses according to institutional standards. Recent studies support these informal observations<sup>(6,8)</sup>.

Literature appoints that, when the risk factors students are exposed to are previously identified during their educative process, early intervention can reduce the risk of future skill problems, which will frequently only appear in professional practice<sup>(9-10)</sup>. Nurses who in the future tend to present problems in their professional career due to alcohol abuse often start consumption during their academic education<sup>(11)</sup>, as the prevalence of alcohol use is high in this college population.

The choice of this theme was based on the analysis of research results<sup>(6-7)</sup> that appoint health and in this case nursing students as vulnerable to alcohol use and abuse in comparison with university students in general. Hence, this group deserves a distinguished focus as, besides having easy access, they are in contact with psychoactive substances (including alcohol) and are exposed to stressful academic experiences<sup>(8)</sup>.

Brazilian surveys on alcohol consumption in the general population and among college students have mapped a growing number of women who use alcohol and have changed their consumption pattern<sup>(2-6)</sup>, tending towards equalization with male consumption. Due to the peculiarities (Body Mass Index and body fat) that permeate alcohol use among women, this problem represents an even larger challenge for public health.

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As widely acknowledged, historically, women significantly predominate in the nursing profession. Hence, it is obvious that, in nursing education, high levels of women are observed among nursing students. A study on alcohol consumption among first to fourth-year nursing students (n=246) evidenced that 71.2% of those with problematic alcohol use slept in the classroom after having attended a party the night before and that 50% of them got to class late, mainly students who had drunk the night before<sup>(3)</sup>. In a sample with 97% women, 35% indicated that they had already consumed more than six doses of alcoholic beverage on one single occasion at least once in the previous year, characterizing intoxication. This ratio is considered high because WHO recommends, for women, a maximum permitted daily dose for low disease risk equivalent to two cans of beer per occasion. As there is no such thing as risk-free consumption, even when used in low doses, alcohol can cause some kind of problem for consumers<sup>(6)</sup>.

Studies present religion and religious practice only as socio-demographic variables and rarely associated with behaviors like the use of alcohol and other drugs, without getting deeper into possible existing relations though. This problem is complex and studies do not sufficiently cover the different dimensions involved<sup>(8-14)</sup>. This makes it difficult to compare the results obtained through different studies. Besides, the existence of multiple conceptual definitions for the spirituality theme can limit the understanding of the findings.

Spirituality is another aspect that has been considered in research involving college students. In this context, as some studies suggest<sup>(8)</sup>, it seems to act as a protective factor for alcohol consumption. Difficulties to compare different studies are also related to varying operational definitions, as well as aspects of religiosity and spirituality that have been investigated<sup>(14)</sup>. Some commonly studied variables are one-dimensional, including: attendance to religious services, which tends to be inversely related with the consumption of alcohol and other drugs<sup>(15-16)</sup>; affiliation with a religious institution, which have shown that believers of evangelical religions, which exert greater social control on alcohol use, maintain low consumption levels in comparison with believers of more permissive religions<sup>(17)</sup>; factors like personal devotion and importance of religious beliefs, which tend to be inversely related with alcohol consumption<sup>(13)</sup>.

One of the few Brazilian studies on the relation between religiosity, spirituality and drugs consumption was a literature review<sup>(16)</sup>. In a study on the relation between spirituality and psychoactive substance used in college students, the subjects were asked about the importance they attributed to spiritual and religious beliefs in the decision to use drugs, including alcohol<sup>(13)</sup>. Students with higher spiritual belief levels got drunk less than those who did not. For other drugs types, like marijuana for example, no time differences were found in the relation between the two variables: spirituality level and substance use, which shows that users do not reduce consumption. In fact, 41% of students

who reported giving little importance to spirituality used marijuana, in comparison with approximately 15% of student who attributed great importance to spiritual beliefs.

A study on the prevalence of substance use among 241 first-year nursing students at religious schools and colleges, which investigated the relation between religiosity and risk indicators for abuse and addiction, showed that 24% mentioned current substance use, while 15% complied with criteria for the abuse and probable addiction category. Students with strong religious affiliations showed lower substance abuse and addiction rates, as well as a small number of risk indicators<sup>(14)</sup>.

There are different reasons to explain this inverse relation between religiosity and substance use<sup>(11)</sup>. People can be socialized to abstain from alcohol or drink within permitted consumption limits through the internalization of religious standards, which would affect their behavior. Another consideration is that religion would also cover people's basic needs, offering alternative ways to deal with stressful situations through activities like praying and receiving social support. Spirituality can also be a powerful alternative to construct meanings that allow people to give meaning to life<sup>(16)</sup>.

In conceptual terms, spirituality refers to questions related to the meaning of life and is not limited to beliefs, customs and religious practices. Historically, the concept refers to the influence of God, of a Higher Being that infers in human life. In the twentieth century, the word was widely disseminated to different languages, related or not with religious traditions, but still deprived of a totally satisfactory concept<sup>(18)</sup>.

A definition directed at the addiction sphere presents the following conceptual proposal:

spirituality is a distinct and potentially creative universal dimension of human experience, resulting from individuals' internal subjective perception and insertion in the community, social groups and traditions. It can be experienced as an intimately *internal*, personal relation, which is part of the essence of being with oneself and with the other, and/or a relation with which the other's totality transcends itself. This is experienced as fundamentally important and is related with the meaning of the sense and purpose of life, of truth and values<sup>(19)</sup>.

In this study, the spirituality concept will be distinguished from religiosity. In this conception, spirituality is a relatively new concept in empirical sciences<sup>(13)</sup>. While religiosity includes spirituality in a framework of beliefs, customs and specific practices, spirituality is a much more individualized focus that may or may not follow devotion. An individual with spiritual practice may not adhere to religious practice or associate it with an established religion<sup>(20)</sup>. Religiosity is based on belief and is a commitment to doctrines and practices<sup>(21-22)</sup>. Spirituality, on the other hand, does not require practicing religious rituals or participating in a religious organization<sup>(21)</sup>, which transcends religion.

Spirituality can be objectively measured. Instruments are available in literature to assess spirituality levels, like the Spirituality Self-Rating Scale – SSRS<sup>(21-22)</sup> for example, which will be used here. This instrument permits apprehending this construct and establishing relations with other domains.

In view of the importance of the alcohol use phenomenon nowadays and the need to identify protective factors, as seems to be the case for spirituality, it becomes relevant for health professions, particularly nursing, to dimension the problem during profession education. In the identification phase of protection or risk factors of alcohol consumption, interventions that may reveal to be necessary can be put in practice early, enhancing their efficacy. In this perspective, this study aimed to identify alcohol consumption and spirituality levels among nursing students.

## METHOD

Descriptive and exploratory cross-sectional study. The sample comprised 191 first to fourth-year undergraduate Nursing students from a public higher education institution in the interior of Minas Gerais, Brazil. In 2007, 244 (100%) students were enrolled at this unit, i.e.: 61 (25%) in the first year, 71 (29%) in the second, 77 (31.5%) in the third and 35 (14.3%) in the fourth year. The collected sample is equivalent to 78.2% of the universe of students enrolled at the institution in the afternoon and night programs.

The research was developed in August 2007. Data were collected in the classroom through a closed, self-applied and anonymous questionnaire, composed and adapted to respond to the study objectives. The questionnaire was applied at a preset time, so that it would not interfere with the students' didactic activities. The time spent to fill out the questionnaire was no longer than 20 minutes. This time was established after the accomplishment of a pilot study in which 10 volunteers participated.

The questionnaire used contained four parts: a) socio-demographic information, b) questions about spirituality, c) Alcohol Use Disorders Identification Test (AUDIT)<sup>(23)</sup>, and d) Spirituality Self-Rating Scale – SSRS<sup>(22)</sup>.

The AUDIT is an alcohol use screening test, validated for the Brazilian context<sup>(6)</sup>. This self-completion test contains 10 questions that assess the alcohol consumption pattern, signs and symptoms of addiction and problems deriving its use. To read the use, answer scores are added up, ranging from 0 to 40 points and divided in two categories: subjects with scores ranging from 0 to 7 AUDIT<8, corresponding to abstemious people or drinkers within the limits recommended by WHO, and above 8 points AUDIT≥8, characterizing people with problematic alcohol use.

The SSRS<sup>(22)</sup> is a six-item scale, reflecting subjects' orientation towards spirituality, i.e. whether they consider or judge questions related to the spiritual/religious dimension (more or less) important and how they apply them in their

life. It was elaborated in view of some items on religious practices and theoretical precepts of the Twelve Steps of Anonymous Alcoholics. Some of these precepts, which are not related with the religious doctrine, refer to the belief that a Higher Being can recover, the need to acknowledge personal errors and the need for spiritual practice.

SSRS answers are based on a Likert scale ranging from 1 – I strongly disagree to 5 – I strongly agree, and the sum of items permits reading the scores, i.e. the higher the score, the higher the spiritual orientation levels. When determining the results, item scores should be inverted. Scale items refer to divine intervention in people's daily reality and religious rituals like praying. This scale, which assesses spirituality levels, was validated in Brazil. The reliability test showed Cronbach's alpha = 0.78, considered acceptable, which attests the use of the scale<sup>(21)</sup>.

Students who accepted to participate signed the Informed Consent Term after previous orientations on the study goal and guaranteed anonymity. The students' participation was voluntary, with complete freedom to refuse collaboration in the research.

A ballot box was placed on the classroom table to cast the questionnaire at the end of the completion. Even if the students decided not to complete it, they should follow the same rules so as not to be identified. After the last questionnaire was handed in, the applier checked the number of questionnaires with the number of enrolled students to assess how many were missing and then revisit the classroom to try and recruit them.

Approval for this study was obtained from the Institutional Review Board at the University of São Paulo at Ribeirão Preto College of Nursing, Process No 0804/2007. National Health Council Resolution 196/96 was complied with, guaranteeing the participants anonymity and information confidentiality.

A database was elaborated in Statistical Package for Social Science (SPSS) version 11. Data were treated through descriptive analysis (frequency, percentage, means and standard deviations). The Chi-square test was used to check for associations. Significance was set at  $p=0.05$ , with a 95% confidence interval.

## RESULTS

As for the students' socio-demographic characteristics, ages ranged between 18 and 48 years; the average age was 25.0 ( $\pm 6.5$ ) years. Women predominated 144 (75.4%) and single students 125 (65.4%). Regarding the nursing program year, 47 (24.6%) were first-year, 65 (34.0%) second-year, 54 (28.3%) third-year and 25 (13.1%) fourth-year students. With respect to religion, 149 (78.0%) declared themselves catholic, four evangelical, three spiritist, two declared no religion and 33 (17.3%) did not answer this item; 71.0% declared themselves practicing believers.

Regarding alcohol consumption, 156 (81.7%) had drunk at some moment in the last year. Considering problematic and non-problematic drinkers, 58 (30.4%) consumed at problematic levels. As for the consumption pattern, 66 (42.3%) drank once per month or less, and 46 (24.6%) consumed two or three doses of alcoholic beverages on a normal day. Finally, 115 (61.4%) reported that they had been drunk at least once in their lives. In the past year, 52 (45.2%) students got drunk less than once per month and, for 37 (32.2%), this happened once per month.

With regard to gender, 117 (75%) women consumed alcoholic beverage. Also, 33 women (56.9%) drank at problematic levels ( $X^2= 15.5$ ;  $p\leq 0.05$ ) in comparison with men ( $n=25$ , 43.1%).

As for the course year, the second year was identified with the largest number of problematic drinkers: 29 (50%), against 4 (6.9%) in the fourth year.

SSRS scores ranged from 6 to 29 points – mean 12.9 ( $\pm 4.05$ ), considered low in accordance with the original research<sup>(22)</sup>.

Although no statistically significant relation was found when comparing mean SSRS scores, women showed a lower score than men (12.7 vs. 13.5, respectively).

No statistically significant relation was identified between spirituality levels and problematic drinking. Students who drank within recommended limits set by WHO pre-

sented lower spirituality levels - mean 12.5 ( $\pm 4.2$ ) in comparison with problematic drinkers – mean 13.7 ( $\pm 3.4$ ).

Table 1 shows that nursing students with lower spirituality levels consumed alcoholic beverages within recommended levels – AUDIT<8 ( $n=86$ , 67.2%),  $p\leq 0.05$ .

**Table 1** - Distribution of spirituality levels (SL) and AUDIT classification according to the nursing students - Campos Gerais, MG - 2007

Level	AUDIT<8		AUDIT≥8		Total	
Low SL	86	67.2	34	58.6	120	64.5
High SL	42	32.8	24	41.4	66	35.5
<b>Total</b>	<b>128</b>	<b>100</b>	<b>58</b>	<b>100</b>	<b>186</b>	<b>100</b>

\* $p<0.05$

As observed in Table 2, answer variability was present in the positive, negative and neutral dimensions regarding beliefs or spiritual attitudes enunciated by the scale items. Thus, 156 (82.1%) agreed that spirituality helps to maintain stability and balance in their life; 9 (4.7%) negatively endorsed that prayers or spiritual thoughts, when they are alone, are as important as thoughts they would have during religious ceremonies or spiritual meetings. Eighty-eight (46.1%) agreed and 64 (33.5%) were indifferent to the enunciation that establishes spirituality as a guideline in their life. This data suggests less adherence to this belief when compared with others. The highest rate of indifference was found for this statement.

**Table 2** - Quantitative and percentage distribution of nursing students' answers on the SSRS - Campos Gerais, MG - 2007

SSRS items	I disagree		Indifferent		I agree	
	n	%	n	%	n	%
1. It is important for me to spend time in private spiritual thought and meditation.	14	7.3	45	23.6	132	69.1
2. I try hard to live my life according to my religious beliefs	16	8.4	47	24.6	128	67.0
3. The prayers or spiritual thoughts that I say when I am alone are as important to me as those said by me during services or spiritual gatherings.	9	4.7	35	18.3	147	77.0
4. I enjoy reading about my spirituality and/or my religion.	22	11.5	61	31.9	108	56.5
5. Spirituality helps to keep my life balanced and steady in the same ways as my citizenship, friendships, and other memberships do.	13	6.8	21	11.1	156	82.1
6. My whole approach to life is based on my spirituality.	39	20.4	64	33.5	88	46.1

## DISCUSSION

Different studies appoint health college students as vulnerable to alcohol use and abuse<sup>(3-8,13)</sup> in comparison with college students in general. This indicates the urgent need to dimension this problem in the Brazilian nursing context, as well as to identify protective factors, so as to contribute to the maximization of these aspects during future professionals' education. An investigation of literature, especially in the Brazilian context, indicated a lack of studies on spirituality as a possible protective factor, which justified the proposal of this research.

Research participants were 191 (78.2%) first to fourth-year nursing students from an interior city in Minas Gerais. The sample predominantly comprised young, single, practicing catholic women, characteristics literature acknowledges as peculiar to the profession<sup>(3)</sup>.

The results indicated that alcohol use in the previous year was present in a considerable part of students (81.7%), with problematic drinking (30.4%), and that 45.2% of the sample got drunk less than once per month. The figures are a source of concern and suggest the need to systematically monitor the evolution of these consumption patterns

as, to the extent that alcoholic beverages are available and depending on attendance to college parties, social pressure towards consumption and stress deriving from daily college reality, the drinking habit tends to change over time. Thus, college students currently classified as low risk can start problematic drinking, which would lead to severe consequences in the medium or long term.

In this study, women consumed alcoholic beverages at problematic levels, in line with literature data<sup>(3-6)</sup>. Although studies describe greater alcohol consumption<sup>(2-3)</sup> among men, whose drinking is clearly different from women<sup>(2)</sup>, higher prevalence levels were found for women in this study, as consumption patterns in this group has been changing, with a projected equivalence with male consumption. Knowledge production in the area, however, shows a lack of studies on this problem and its different forms according to gender in the college sphere. Research evidences that being male is considered an important risk factor for alcohol abuse, although more recent surveys show an increasing number of women using alcohol<sup>(2,6-7)</sup>.

This fact is concerning, in view of the peculiarities of intensified risk factors in the college context, given exposure to parties, unsafe sexual activities and involvement in accidents. Besides, there is the potential harm in academic performance, such as losing classes, arriving late or sleeping in class, behaviors that often are not perceived as harmful<sup>(3-6)</sup>.

As for answers to the SSRS scale, variability was found in the positive, negative and neutral dimensions of the enunciated spiritual beliefs or attitudes. Thus, 156 (82.1%) agreed that spirituality helps in the maintenance, stability and balance of life; 9 (4.7%) negatively endorsed that, when they are alone, prayers or spiritual thoughts are as important as they would be during religious ceremonies or spiritual meetings; 88 (46.1%) agreed and 64 (33.5%) showed indifference to the statements that puts forward spirituality as a guideline in their life.

These data indicate that nursing students value presence in religious services as a way to express spirituality, which may be related with the sample characteristics, comprising young adult women, which distinguishes this population from most studies involving college students<sup>(3-5,14-17)</sup>. On the other hand, participants were divided between those who agreed with the central position of spirituality in their lives and those who did not take a stand on this issue. This can be linked with uncertainties as to the influence of spiritual aspects on the conduction of their life. For those who agreed with the fact that spirituality plays a decisive role in their lives, it should be taken into account that this construct refers to a system of beliefs that bears vitality and adds meaning to the events of life. In this sense, spirituality also represents a connection with the transcendent and, as such, gives value and purpose to life<sup>(15,22)</sup>.

A low score for spirituality levels was identified among students in general and mainly among women. Despite answer variations, in general, it was verified that beliefs

regarding spirituality were positive when assessing the scale items separately, which indicates propensity to spiritual devotion. These contradictory results may have influenced spirituality's low protective power against drinking in the present study sample.

On the counterpart, evidence from international literature prove that religiousness and spirituality are protection factors against the use of alcohol and other drugs<sup>(14-17)</sup>. Based on the present and other studies, what is argued is not just the existence, but also the extent of this effect. In this sense, a study mentions that this effect is moderate and that, in fact, it should be considered with caution, as a more accurate investigation of data revealed some incongruences<sup>(13)</sup>. Among students who indicated that spiritual and religious beliefs were very important in their decision to use alcohol or drugs, 45% got drunk at least twice in the last two weeks. Also, in the group of college students who considered spirituality very important, 16% smoked marijuana regularly. These results are consistent with the present study results and suggest that, despite the protective effect of spirituality, efforts are needed to include all college students in the prevention of alcohol and other substance use. Thus, even those young people who are not considered at risk can benefit from prevention strategies<sup>(13)</sup>.

In this study, nursing students' spirituality levels were low when compared with alcohol consumption levels. These results remain below those found in an international study<sup>(22)</sup> that used the SSRS. Scores found in the present study are surprising in a way, as this is a sample of mostly young female adults, who self-declared practicing Catholics. The researchers departed from the premise that these sample characteristics would suggest higher spirituality levels. The result found indicates that a person with spirituality may not adhere to religious practice or associate it with an established religion<sup>(20)</sup>, which may influence alcohol use or not.

Spirituality can of course result in a religious choice, just like religion can result in the development of spirituality<sup>(20-21)</sup>. This has been considered one of the constructs that can play a significant role in drinking among college students. A literature analysis shows studies on the relation between spirituality and psychoactive substance use, although most research is socio-demographic and descriptive, concerned with differences in consumption patterns<sup>(2-6,16)</sup>. Empirical research results tend to suggest a moderate protective influence for students who maintain some religious practice. This finding, however, is not conclusive, as there are contradicting results and, besides, some evidences suggest that students may also consume substances to induce a mystic experience<sup>(8,13-14)</sup>.

## CONCLUSION

The obtained results permit concluding that, in the study sample, spirituality levels may not have functioned as a

protective factor for alcohol use, suggesting that other variables may control this behavior. This suggests that further research is needed to better explore the relation between these variables and the theme, considering that psychoactive substance use is a multifactorial phenomenon and, as such, results from a combination of factors that act interdependently. Spirituality should be seen as one of these possible factors, whose association with drinking needs to be better explored.

Another concerning aspect refers to the peculiar differences of the female sex (weight and body composition) which, despite consuming less alcoholic beverages, do not exclude vulnerabilities to social and physical problems.

Attention is also needed for the fact that concerns with scientific research on spirituality, mainly in the Brazilian context, is still relatively recent. Particularly at the interface with alcohol use, studies are still very scarce. Nursing has stood out in publications, although attention remains strongly directed at the cancer area.

One important limitation of the research area is conceptualization, which is still somewhat confused, not only in the lay public, but also in the academic context. To give an example, the delimitation of conceptual frontiers be-

tween religiousness and spirituality still is not very precise. In this sense, it is important to clearly define the spirituality concept used in each study, which would contribute to decrease conceptual imprecision, facilitating comparisons among different study results.

The academic environment turns into a reference for the development and establishment of substance use and abuse prevention programs, as most young people today pass through university at ages and in circumstances that facilitate drugs use, especially alcohol.

This research can be considered an attempt to explore the relations between spirituality and substance use by nursing students. It is important to highlight the pioneerism of this research.

On the other hand, the research presents some limitations, such as the fact that it does not directly evidence the influence of spirituality on the decision to drink or use other drugs. There may be differences between the influence of individual and more community-oriented beliefs and spiritual practices. Further examining this relation may permit knowledge advances on how the spirituality concept contributes to the psychoactive substance use phenomenon among college students.

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