

## Problematic alcohol and tobacco use among healthcare professionals<sup>1</sup>

Emilene Reisdorfer<sup>2</sup>

Carmem Regina Delziovo<sup>3</sup>

Edilaine Cristina da Silva Gherardi-Donato<sup>4</sup>

Rodrigo Otávio Moretti-Pires<sup>5</sup>

The objective was to estimate the prevalence and characteristics of alcohol and tobacco use among healthcare professionals working in the Family Health Strategy. Was realized a cross-sectional study, with healthcare professionals from the Alto Uruguay Catarinense region, Santa Catarina, Brazil, in March/2011. The dependent variables studied were the problematic use of alcohol and tobacco use and analyzed from socio-demographic, socio-economic and health conditions. It was observed that 6.2% professionals had problematic alcohol use and 8,5% use tobacco. It is essential that employers develop specific services and actions targeting healthcare professionals' mental health.

Descriptors: Primary Health Care; Mental Health; Alcohol-Related Disorders; Smoking; Cross-Sectional Studies.

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<sup>2</sup> PhD, Researcher, Centre for Addiction and Mental Health, CAMH, Toronto, Canada.

<sup>3</sup> PhD, RN, Secretaria de Estado da Saúde de Santa Catarina, Florianópolis, SC, Brazil.

<sup>4</sup> PhD, Associate Professor, Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo, WHO Collaborating Centre for Nursing Research Development, Brazil.

<sup>5</sup> PhD, Adjunct Professor, Universidade Federal de Santa Catarina, Florianópolis, SC, Brazil.

Corresponding Author:

Emilene Reisdorfer

Universidade de São Paulo, Escola de Enfermagem de Ribeirão Preto

Avenida dos Bandeirantes, 3900

Campus Universitário - Bairro Monte Alegre, Ribeirão Preto, SP, Brasil

CEP: 14040-902

E-mail: emilene.reisdorfer@gmail.com

## Uso problemático de álcool e de tabaco por profissionais de saúde

O objetivo deste estudo foi descrever a prevalência e características do uso problemático de álcool e tabaco entre profissionais de saúde atuantes na Estratégia de Saúde da Família. Foi realizado um estudo transversal com profissionais de saúde do Alto Uruguai Catarinense, Santa Catarina, Brasil. As variáveis dependentes foram o uso problemático de álcool e o uso de tabaco e as variáveis independentes foram as características sociodemográficas, socioeconômicas e condições de saúde. Observou-se que 6,2% apresentavam uso problemático de álcool e 8,5% usavam tabaco. Torna-se essencial que os serviços de saúde estruturarem políticas e ações específicas o desenvolvimento de estratégias de prevenção e tratamento específicos para este grupo de profissionais, aumentando a qualidade dos serviços prestados aos usuários neste nível de atenção.

Descritores: Atenção Primária à Saúde; Saúde Mental; Transtornos Relacionados ao Uso de Álcool; Hábito de Fumar; Estudos Transversais.

## Uso problemático de alcohol y tabaco por los profesionales de salud

El objetivo de este estudio fue describir la prevalencia y las características del uso problemático de alcohol y tabaco entre los profesionales de la salud activos en la Estrategia Salud de la Familia. Se realizó un estudio transversal de profesionales de salud en el Alto Uruguay Santa Catarina, Santa Catarina, Brasil en marzo / 2011. Las variables dependientes fueron el uso problemático de alcohol y el consumo de tabaco y las variables independientes fueron las características demográficas, socioeconómicas y de salud. Se observó que 6,2% tenían uso problemático de alcohol y 8,5% utiliza tabaco. Es esencial que la estructura de la salud y las acciones políticas, el desarrollo de estrategias específicas de prevención y tratamiento para este grupo de servicios profesionales específicos, el aumento de la calidad de los servicios prestados a los usuarios este nivel de atención.

Descriptores: Atención Primaria de Salud; Salud Mental; Trastornos Relacionados con Alcohol; Hábito de Fumar; Estudios Transversales.

### Introduction

Proximity with the community inherent to the work of the Family Health Strategy (FHS) is an important resource for facing health problems in general.<sup>(1)</sup> Situations linked to mental suffering should also be noted, which are extremely frequent and still seldom treated in this level of care<sup>(2)</sup>, such as alcohol and tobacco use<sup>(3-4)</sup>.

Regarding tobacco, the World Health Organization<sup>(5)</sup> estimated in 2002 that one third of the world's population smokes, consisting of 47% of the entire male population and 12% of the female population<sup>(6)</sup>. Data from a study performed with the adult population in the 27 Brazilian state capitals and the Distrito Federal in 2008 showed an average prevalence of active smokers of 11.3%<sup>(7)</sup>.

As for alcohol use, in 2007, 48% of the Brazilian population was abstinent, 23% reported use with noted problems, and 29% reported use without the identification of any problems<sup>(8)</sup>.

Despite the fact that the FHS is recognized as an important space for building assistance for tobacco and alcohol users, there are still some barriers to the full structuration of this type of care<sup>(9)</sup>. These include the tendency for medicalization of the symptoms and the non-perception of the different patterns of alcohol and tobacco use, such as low-risk use (which presents little probability of causing health problems, but is not totally harm-free) and risk use (which can cause risk of immediate harmful consequences to the individual, without causing dependence<sup>(5)</sup>) as a health problem. These factors are related to the professionals' lack of preparation to handle content related to mental suffering and to the subjective needs in the daily care activities<sup>(4-10)</sup>.

There are few studies that discuss alcohol and tobacco use among professionals working in Primary Health Care (PHC), and those found refer mainly to tobacco use. The greatest emphasis of the studies is on alcohol and tobacco use among university students of the health sector<sup>(11-12)</sup>.

Studying the use of alcohol and tobacco among professionals working in FHS may contribute to deeper knowledge of the factors that influence care in this care model<sup>(13)</sup>. Thus, the objective of this study is to describe the prevalence and characteristics of the problematic use of alcohol and tobacco among health professionals working in FHS.

## Materials and Methods

This is a cross-sectional study undertaken with FHS professionals from the Alto Uruguai region of the state of Santa Catarina in the south of Brazil during March 2011. Located in the center of the state, this region is characterized by an agriculture- and livestock-based economy.

A survey was performed of the professionals working in FHS, identifying that of the 516 active professionals, 176 (34.1%) were high level (doctors, nurses, dentists), 56 (10.7%) were medium level (nursing technicians and dental clinic assistants), and 284 (55.0%) were basic level (community health agents). The municipals included in the study were:

Alto Bela Vista, Arabutã, Concórdia, Ipira, Ipumirim, Irani, Itá, Lindóia do Sul, Peritiba, Piratuba, Presidente Castello Branco, and Seara. The detailed number of health professionals from each municipal is shown in Table 1.

The interviews were performed at the health units by four undergraduate and graduate students, supervised and trained by the coordinators of the study in March 2011. The criteria for inclusion in the study were: be a worker of the Municipal Health Secretariat inserted in the FHS. The dependent variables studied were: problematic alcohol use and current tobacco use.

Problematic alcohol use is a consumption pattern that, even though it does not meet clinical criteria for chemical dependence, may represent problems for the user. It was evaluated using the standardized Alcohol Use Disorders Identification Test (AUDIT)<sup>(5)</sup>, an instrument composed of 10 questions that evaluate alcohol use over the last 12 months. The AUDIT was validated in various countries, including Brazil, presenting good levels of sensibility (87.8%) and specificity (81.0%) for detecting problematic alcohol use<sup>(14)</sup>. Non-problematic use was defined by a score equal to or lower than seven points, and use was considered problematic if the score was equal to or higher than eight points<sup>(15)</sup>.

Current tobacco use was measured based on the following question in the questionnaire: "Do you currently smoke?". The possible answers to this question were "yes" and "no".

We analyzed independent variables related to the socio-demographic aspects: sex, age, ethnicity (white and others), region, and marital status; socio-economic: education, profession, time of work at current job, current income (less than R\$ 930 – up to two minimum salaries), between R\$ 931 and R\$ 3,000 (from three minimum salaries to six minimum salaries), and above R\$ 3,000 (over six minimum salaries), having another job other than FHS or having been removed for work due to illness; and health conditions: presence of Common Mental Disorder (CMD) in the last 30 days and report of medical diagnosis of mental and behavioral disorder in life.

Medical diagnosis of a mental and behavioral disorder was evaluated through the following question: "Has a doctor or health professional ever told you that you have a mental or behavioral disorder?". The study also evaluated the medical diagnosis of other

disorders of the nervous, circulatory, digestive, and endocrine systems.

Common Mental Disorder is considered a health condition that does not meet the formal criteria for diagnoses of depression and/or anxiety, but which presents prominent symptoms that cause functional incapacitation. The presence of CMD was evaluated through the Self Reporting Questionnaire – SRQ 20, composed of 20 questions that evaluate depressive and anxious behavior, somatic symptoms, decrease of vital energy, and depressive thoughts in the last 30 days. The cutoff point used was 7<sup>(16)</sup>.

A descriptive analysis was made (frequency and percentage) of problematic alcohol use and tobacco use. The associations between problematic alcohol use and tobacco use and the independent variables described above were tested using the Pearson chi-square test and the Fischer exact test, when necessary. The data were doubly entered and analyzed in the Stata 9.0 statistic program.

The project was approved by the Research Ethics Committee of the Federal University of Santa Catarina (notion number 1043). The interviews were performed at the health units, under conditions that guaranteed the confidentiality of the information, where orientations were also provided regarding the Term of Free and Informed Consent.

## Results

All professionals of the FHS participated in the study, in which the sample was composed of 516 (100%) professionals from the following categories: community health agents, oral health technicians, dental clinic assistants, nursing technicians, doctors, and dentists. There were no refusals of participation in the study.

Most of the health professionals of the region were female (86.8%), white (92.9%), under 30 years of age (42.5%), and did not have another job (78.1%). Most of the professionals were community health agents (55%). Among the higher level professionals, a similar distribution was observed among nurses (13.2%), doctors (10.9%), and dentists (10.1%) (Table 1).

Of the professionals, 6.2% used alcohol on a problematic level, 8.5% used tobacco, 3.1% reported having a medical diagnosis of mental and behavioral disorders in the last year, and 17.8% were classified as suggestive of CMD (Table 1).

Table 1 – Socio-demographic profile, according to the health professionals of the Family Health Strategy - Alto Uruguai in the state of Santa Catarina, Brazil, 2011 (n = 516)

Variable	N (%)
<b>Total</b>	516
<b>Sex</b>	
Female	448 (86.8)
Male	68 (13.2)
<b>Ethnicity</b>	
White	468 (90.7)
Other	36 (7.0)
Not Provided	12 (2.3)
<b>Age Group</b>	
19 – 30 years	216 (41.9)
31 – 40 years	168 (32.6)
40 – 56 years	124 (24.0)
Not Provided	8 (1.5)
<b>Profession</b>	
Nurse	68 (13.2)
Doctor	56 (10.9)
Community Health Agent	284 (55.0)
Dentist	52 (10.1)
Nursing Technician	44 (8.5)
Dental Clinic Assistant	12 (2.3)
<b>Categorized Income (BRL)</b>	
Less than 930	316 (61.2)
931 – 3,000	100 (19.4)
Over 3,000	100 (19.4)
<b>Other Job</b>	
No	400 (77.5)
Yes	112 (21.7)
Not Provided	4 (0.8)
<b>Problematic Alcohol Use</b>	
No	484 (93.8)
Yes	32 (6.2)
<b>Tobacco Use</b>	
No	448 (86.8)
Yes	44 (8.5)
Not Provided	24 (4.6)
<b>Common Mental Disorder in the Last 30 Days</b>	
No	424 (82.2)
Yes	92 (17.8)
<b>Medical Diagnosis of Mental and Behavioral Disorder in Life</b>	
No	496 (96.2)
Yes	16 (3.1)
Not Provided	4 (0.8)

Problematic alcohol use was greater in health professionals that had no other job, used tobacco, and had a medical diagnosis of mental and behavioral disorders. Women and young people (younger than 30 years) presented a higher percentage of problematic alcohol use compared to the men and younger people (Table 2).

The health professionals with the following characteristics had higher rates of tobacco use: white, nurse, no other job, with problematic alcohol use and Common Mental Disorder or medical diagnosis of a mental and behavioral disorder (Table 2).

Table 2 – Prevalence of problematic alcohol and tobacco use, according to health professionals at the Family Health Strategy - Alto Uruguai in the state of Santa Catarina, Brazil, 2011 (n = 516)

Variable	Problematic Alcohol Use - (%)	Value of p	Tobacco Use - n (%)	Value of p
<b>Sex</b>				
Female	32 (7.1)	0.014 <sup>(a)</sup>	40 (9.4)	0.341 <sup>(b)</sup>
Male	- (-)		4 (5.9)	
<b>Skin Color</b>				
White	24 (5.1)	0.131 <sup>(b)</sup>	44 (8.3)	0.063 <sup>(a)</sup>
Other	4 (11.1)		- (-)	
<b>Age Group (Years)</b>				
19/30	20 (9.3)	<0.001 <sup>(a)</sup>	20 (9.4)	0.690 <sup>(b)</sup>
31/40	12 (7.1)		12 (7.5)	
40/56	- (-)		12 (10.3)	
<b>Profession</b>				
Nurse	4 (5.9)	0.068 <sup>(a)</sup>	12 (18.8)	0.036 <sup>(a)</sup>
Doctor	4 (7.1)		4 (7.1)	
Community Health Agent	24 (8.5)		24 (8.8)	
Dentist	- (-)		4 (7.7)	
<b>Categorized Income (BRL)</b>				
Less than 930	20 (6.3)	0.497 <sup>(b)</sup>	24 (8.0)	0.311 <sup>(b)</sup>
931 – 3,000	4 (4.0)		12 (13.0)	
Over 3,000	8 (8.0)		8 (8.0)	
<b>Other Job</b>				
No	16 (4.0)	<0.001 <sup>(b)</sup>	40 (10.6)	0.022 <sup>(b)</sup>
Yes	16 (14.0)		4 (3.6)	
<b>Current Tobacco Use</b>				
No	24 (5.4)	<0.001 <sup>(b)</sup>	-	-
Yes	8 (18.2)		-	
<b>Problematic Alcohol Use</b>				
No	- (-)	-	36 (7.8)	<0.001 <sup>(b)</sup>
Yes	- (-)		8 (25.0)	
<b>Common Mental Disorder (Last Year)</b>				
No	28 (6.6)	0.416	44 (10.9)	<0.001
Yes	4 (4.4)		- (-)	
<b>Medical Diagnosis of Mental and Behavioral Disorder in Life</b>				
No	28 (5.7)	0.002	44 (9.3)	0.382
Yes	4 (25.0)		- (-)	

<sup>(a)</sup> Exact Fischer Test, <sup>(b)</sup> Chi-Square Test

## Discussion

The findings of this study reflected the situation of alcohol and tobacco consumption by health professionals of the FHS of a region in the south of Brazil. Regarding the use of psychoactive substances, we noted that the pattern of problematic alcohol and tobacco use by health professionals working in PHC differs from the pattern observed for the general population<sup>(7-8)</sup>. The prevalence of problematic alcohol use in this study was 6.2% and tobacco use, 8.5%.

These results reflect the findings of other international studies that show that the consumption of psychoactive substances by health professionals is lower than that of the general population<sup>(10,17)</sup>. Among the professionals who use psychoactive substances, alcohol and tobacco use have been considered coping mechanisms used by health professionals to face stressful situations<sup>(17-19)</sup>. Health professionals are responsible for providing orientation and care for the maintenance of the health of the population. Thus, many of them adopt life habits considered healthy as they have wider knowledge on the subject. In addition, they also do so as a way of increasing their reliability to people in the orientations provided<sup>(10)</sup>.

The main characteristics of the professionals that problematically use alcohol were: having more than one job, use of tobacco, and having received a medical diagnosis of mental and behavioral disorders in life.

The professionals that worked at more than one location also presented a higher percentage of problematic alcohol use. Studies showed that the increase of stress related to work can lead to mental health problems, including the consumption of psychoactive substances<sup>(19)</sup>, used as a coping mechanism for work-related stress<sup>(20)</sup>.

The relationship between the consumption of alcohol and cigarettes is consistent with previous surveys and the international literature<sup>(3,21)</sup>. The possible factors causing this association include pharmacological, psychological, and socio-cultural matters. Tobacco use has also proven to be an important predictive factor of high alcohol use in outpatient settings<sup>(22)</sup>.

Alcohol and nicotine present effects that are partially opposite, and people use each to reinforce

the effects of the other<sup>(21)</sup>. The repetitive use of nicotine can stimulate alcohol use; on the other hand, nicotine reduces the collateral effects of alcohol use<sup>(23)</sup>.

As tobacco and alcohol use are culturally classified into similar categories, sometimes as oppositional behaviors, there is a social influence that tends to be linked to their use<sup>(3)</sup>.

The health professionals that had been medically diagnosed with mental and behavioral disorders in life presented a higher percentage of problematic alcohol use. This finding confirms the data of the international literature, which shows a strong association between alcohol consumption and mental problems<sup>(24)</sup>, generating a greater global disease load<sup>(25)</sup>.

Regarding tobacco use, most of the users were female nurses who presented problematic alcohol use and did not have another job.

Tobacco use was the lowest among professionals who had more than one job. This finding does not corroborate with the data in the literature, which considers a higher workload would be associated with higher stress and consumption of the substance<sup>(24)</sup>. In addition, a study undertaken in Brazil in 2008 showed that the lower the weekly workload, the higher the prevalence of tobacco use in the general population<sup>(7)</sup>. This divergence suggests the performance of other studies with health professionals to evaluate these characteristics which are peculiar to this population group.

One limitation of this study is the questions regarding sex and profession. Most of the PHC health professionals interviewed were women and community health agents – data that coincide with the current reality of public health services in Brazil, most of which are composed of female professionals and community health agents<sup>(2)</sup>. It should also be considered that the data found in this study reflect a regional reality, since they are not representative of the population of health professionals as a whole.

Another limitation that can be described was the way the data were collected regarding tobacco use. This information was obtained through a categorical variable, and not through the use of standardized scales that measured nicotine dependence levels, since the main objective of the study was merely to evaluate current tobacco use.

In light of the data observed regarding alcohol and tobacco consumption among health professionals

at FHS, it is essential for health services to structure specific policies and actions for this population contingent.

Health managers should consider the pattern of alcohol and tobacco use to assign the professionals in the Family Health Strategy, allowing users of psychoactive substances to be cared for by individuals fit for the job, both technically and psychologically.

Wider comprehension of the factors associated with alcohol and tobacco consumption by health professionals allows prevention and treatment strategies specific for this group of professionals to be developed, increasing the quality of the services provided to users in this level of care.

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