

## ALCOHOL AND DRUGS QUESTIONNAIRE AMONG WORKERS: A LITERATURE REVIEW

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Alcohol and drug use has been increasingly recognized as an occupational health problem, despite methodological difficulties to accomplish this type of research. A bibliographic review was carried out to identify and analyze papers that have focused on workers' use of alcohol and drugs, focusing on data collection instruments. The review period was from 1998 to 2008. The method included the definition of descriptors and the search in on-line databases. After abstract reading and exclusion criteria use, 33 papers were selected for analysis. Results showed that CAGE and AUDIT questionnaires were the most frequently used, and that the majority of studied workers were from service sector, with few studies in other sectors.

Descriptors: Alcoholism; Nursing; Questionnaires; Occupational Health.

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## QUESTIONÁRIOS SOBRE O USO DE ÁLCOOL E DROGAS ENTRE TRABALHADORES: REVISÃO DA LITERATURA

A questão do uso de álcool e drogas tem sido crescentemente reconhecida como problema para a saúde dos trabalhadores, apesar dos desafios metodológicos para este tipo de pesquisa. Trata-se de estudo de revisão bibliográfica com o objetivo de identificar e analisar publicações que apresentam enfoque no uso de álcool e drogas por trabalhadores, com foco nos instrumentos de coleta de dados. A revisão abrangeu o período de 1998 a 2008. A metodologia contemplou a definição e aplicação de descritores, e a busca em bases de dados digitalizadas. Após leitura dos resumos e aplicados os critérios de exclusão, foram selecionadas 33 publicações para análise. Os resultados evidenciaram que os questionários Cage e Audit foram os mais utilizados nas pesquisas, e a maioria dos trabalhadores estudados pertencia ao setor de serviços, com poucos estudos nos demais setores.

Descritores: Alcoolismo; Enfermagem; Questionários; Saúde do Trabalhador.

## CUESTIONARIOS SOBRE EL USO DE ALCOHOL Y DROGAS ENTRE LOS TRABAJADORES: REVISIÓN DE LA LITERATURA

El uso de alcohol y drogas es reconocido como un problema para la salud de los trabajadores, a pesar de las dificultades metodológicas para ese tipo de estudio. Se desarrolló una revisión bibliográfica para identificar y analizar publicaciones que se han centrado en el consumo de alcohol y drogas por trabajadores, con foco en los instrumentos de recolección de datos. La revisión incluyó el periodo desde 1998 hasta 2008. Después de la lectura de los resúmenes y la aplicación de criterios de exclusión, 33 publicaciones fueron seleccionadas para análisis. Los resultados muestran que los cuestionarios CAGE y AUDIT fueron los más usados, y que la mayoría de los trabajadores estudiados estaban en el sector de servicios, con pocos estudios en otros sectores.

Descriptorios: Alcoholismo; Enfermería; Cuestionario; Salud Laboral.

### Introduction

The United Nations report on World Tendencies of Illicit Drugs, published in 2003, report that 200 million people in the world, approximately, had consumed some kind of illicit drug between 2000 and 2001<sup>(1)</sup>.

A research promoted by the National Secretariat on Drug Policy (Senad) points out that out of an adult population of 120 million, 27.6 million has or already had some kind of problem related to alcohol abuse. Men and younger people presented higher rates of problems compared to women and the elderly<sup>(2)</sup>.

The use and abuse of legal and illegal drugs, especially

alcohol, by workers, has become a concern by companies, due to the deficit in production<sup>(3)</sup>.

The study<sup>(4)</sup> made in the city of Rio de Janeiro, in 2002, revealed that between the possible risks to induce the drug use and abuse, is the stress generated by the work, the rivalry between co-workers, personal problems and dissatisfaction with the work and function performed.

The comprehension on the relations between work and drug use, however, is still insufficient in Brazil<sup>(5)</sup>. This can also be confirmed regarding other countries, which describes the relation between drugs and violence in the

workplace, concluding that there is a sub-record regarding the problem, counter-posing the North American data, which shows an increase of 300% of labor violence, based in the increase of alcohol intake by workers<sup>(6)</sup>.

This article intends to corroborate for the increase in knowledge regarding the tools used to assess the standard of alcohol intake and other drugs among workers, from the identification of the insufficiency of the self-applied questionnaires for this mean, especially, in relation to the strategies used by companies for promotion and prevention of the drug phenomenon among workers. The proposal of a self-applied data collection tool is intimately related to the fact of keeping the secrecy and anonymity of the worker, leading them to feel like subjects of a research, more protected to answer the questionnaire, becoming an important methodological issue to obtain more consistent data.

The objectives of this study were: raise the published studies that presented focus on the use of alcohol and drugs by workers, between the years from 1998 to 2008, identifying and categorizing the data collection tools used in the studies; analyze the related studies to the evaluation of the standard intake of alcohol and other drugs, through the application of a questionnaire.

## Material and Methods

It is a bibliographical review study, conducted in the data bases available on the internet. The descriptors registered used were from the Descriptors in Health Sciences system, adopted by BIREME. The descriptors used were: *alcoholism, alcoholic beverages, illegal drugs, work, workers and questionnaires*. It was also added a search for key-words close to the meaning of the descriptor, with the intent of finding studies that could not have been using standard descriptors (alcohol abuse, drug abuse and drugs of abuse).

The accessed data bases were: Thesis Bank of Capes – Coordination of the Perfecting of Higher Learning People and BVS – Virtual Health Library. The BVS is comprised by several data bases, in which the following were used: BDENF – Nursing Data Base, SciELO – Scientific Electronic Library Online, LILACS – Latin-American and Caribbean Literature on Health Sciences, and MEDLINE – International Literature in Health Sciences.

From the reading of the abstracts, the studies were selected according to the following criteria of inclusion: possess the focus in the study on the use of alcoholic beverages and other drugs among workers, have as data collection tool a questionnaire, the population or the sample be consisted by workers, studies published between 1998 and 2008, quantitative or quanti-qualitative studies, studies published in Portuguese, English or Spanish and studies available electronically.

The analysis was based in the classification of the

studies according the type of production (dissertation, thesis, article or other nature), type of approach (quantitative or quanti-qualitative), type of referred study (transversal, epidemiological, descriptive, exploratory or other), type of population/sample of study (workers from the service sector, industry, agriculture or other) type of data collection tool (questionnaire, interview script, form or other) and time-line (if the study was published within the established period, from 1998 to 2008).

## Results

The first survey resulted in a total of 655 researches. After reading the resumes, 33 studies were select for the analysis. Regarding the distributions of the studies, according to the consulted data bases, most of them are derived from the Thesis Bank of Capes with 11 (33.3%), followed by MEDLINE with 9 (27.3%) and LILACS with 8 (24.2%). In relation to the methodology, 29 studies were based in quantitative design (87.9%), while only 12.7% were quanti-qualitative.

In the time-line distribution during the comprised period, there is a concentration after 2004, which aggregated 24 publications, corresponding to 72.7% of the total. Regarding the nature of the production, 66.7% (22) of the selected studies are articles and 27.2% (9) are master degree dissertations. The quantity of authors varies from one to more than three, one author (33.3%) and two authors (30.3%) in great part of the studies, followed by three (18.2%) and more than three authors (18.2%). The only studies that presented only one author are the master degree dissertation and doctorate thesis. The authors of the studies were classified in professor (45.5%), graduate students (33.3%), not specified (12.1%), professor and student (6.1%) and assistant (3.0%).

The researches were classified according to the referred methodological design, being the most frequent studies the descriptive (39.4%), exploratory (24.2%), transversal (21.2%) and epidemiological (12.1%).

Most of the workers that have participated in the researches were not specified as labored activities (36.4%). While 33.3% of the workers belonged to the service sector, 27.3% from the industrial sector and 3% were rural workers. However, it is possible to verify, through the review made, a reduced number of researches in industry, due to the characteristics of work organization, which has the tendency of being in a more restricted workplace than the service sector.

The most used data collection technique by all the analyzed studies corresponds to the questionnaire (90.9%). Only 9.1% of the selected studies applied, besides the questionnaire, the structured interviews. The tools used in each study, as well as the studied population group and the methodological design are exposed in Figure 1, in chronological order of publication.

n	Year of Publication	Referred Methodological Design	Population or sample studied	Data collection tool
1	1998	Transversal	Union workers from heavy machinery factory in the central state of the USA	Scale (age, level of education, genre, ethnicity, social support, efficacy of the Employee Assistance Program – EAP, incentive to the worker to seek the EAP, consumption of alcohol during work hours, drinking habits)
2	1998	Epidemiological	Workers of the industrial sector of the metropolitan area of Salvador, BA	Family files (social-demographic and family data); migration and occupational history (HMO); and Questionnaire for Psychiatric Morbidity among Adults (QMPA)
3	1999	Exploratory	Workers of a large organization	Questionnaire (work stress, reasons to drink, alcohol use and problems related to alcohol); general stress scale (SIG)
4	2000	Exploratory	Sugarcane cutters from a sugar-alcohol agricultural-industry	Questionnaire (social-demographical data) and Audit
5	2001	Epidemiological	Workers of the industrial and service sectors	Questionnaire Employee Health and Performance in the Workplace.
6	2001	Longitudinal	Workers of the industrial and service sectors	Interview (demographic information, on job, education, geographical location – rural or urban, district of residence, general health state etc.).
7	2002	Descriptive	Workers	Questionnaire (estimate the prevalence rate of the use of legal and illegal drugs referent to the last month and the last year; the improper use of psychoactive substances and/or pharmaceuticals)
8	2003	Exploratory	Workers in the industrial sector	Questionnaire (intake of alcohol and drugs, worker profile, risk factor related to the work environment, knowledge on the phenomenon of alcohol and other drugs, and data for implementing the promotion of health and prevention of alcohol use and other drugs)
9	2003	Descriptive	Workers	Audit and Cage
10	2004	Exploratory	Employees of the Campus Dean's Office at University of São Paulo (USP)	Structured clinical interview (SCID 2.0); Social-demographic questionnaire and Cage
11	2004	Descriptive	Patients from recovery centers and members of Alcoholic Anonymous brotherhood of Florianópolis	Inventory Scale of the Risk Factors at Work Associated to the Abuse of Psychoactive Substances; and Questionnaire (social-occupational characteristics, characteristics of the use of psychoactive substances and treatment of the participants)
12	2004	Exploratory	Workers of the industrial sector	Questionnaire (social-demographic and occupational profile of the workers, risk factors related to work, frequency of alcohol use, smoking and other psychoactive drugs, degree of satisfaction with the work and their position, interpersonal relations with co-workers and management etc.)
13	2005	Descriptive	Women workers	Spatial-demographic and labor questionnaire (ESDyL); TWEAK questionnaire; table of assessment of drug use and work violence questionnaire
14	2005	Descriptive	Student workers	Questionnaire (physical activities, stress level, eating habits, use of tobacco and alcoholic beverages, age they have initiated the intake and work activities)
15	2005	Exploratory	Women workers	Social-demographic questionnaire and work conditions; questionnaire of violence in the workplace; TWEAK questionnaire and simple table of identification of illegal drug intake and cigarettes
16	2005	Epidemiological	Workers	Health Behavior Questionnaire (HBQ).
17	2005	Transversal	Industrial workers from the State of Santa Catarina	Life style and leisure habits/industrialists questionnaire
18	2005	Descriptive	Brazilian truck drivers	Sleep quality index of Pittsburgh (IQSP); Epworth sleep scale (ESE); questionnaire on the use of medication and drugs; MINI questionnaire (Mini International Neuropsychiatric Interview); Beck depression inventory – BDI)
19	2005	Descriptive	Federal servers: professors and administrative technicians	Promptness questionnaire for physical activity (Q-PAF); questionnaire (regular use of medications, prevalence of tobacco use, alcohol intake etc.)
20	2005	Descriptive	Students teenagers workers and non-workers of the public school system of Cuiabá, MT	Questionnaire for the characterization of the intake of psychoactive drugs and Cage
21	2006	Descriptive	Women worker	ESDyL; TWEAK questionnaire; assessment table of drug intake and violence at work questionnaire
22	2006	Descriptive	Healthcare workers of the Family Health Program (PSF)	Questionnaire (social-demographic characteristics, check-list on substances considered drugs of abuse, healthcare assistance to drug users, check-list with feeling from PSF professionals); The Seaman & Mannello Nurse's Attitudes Toward Alcohol and Alcoholism Scale
23	2006	Transversal	Workers from the service sector	Work Capacity Index (WCI); Work Stress Scale (WSS); Medical Outcomes Study 36 – Item short form health survey (SF-36); Baecke questionnaire; Fagerström tolerance questionnaire and Audit
24	2007	Descriptive	Workers from the service of garbage pick-up of the suburbs at the south side in the city of São Paulo	Questionnaire: relation of alcohol intake with the profession (QRCAP)

(Figure 1 continue in the next page)

n	Year of Publication	Referred Methodological Design	Population or sample studied	Data collection tool
25	2007	Exploratory	Women workers	Questionnaire on Violence on the workplace and guide for in-depth interview
26	2007	Exploratory	Highway truckers	Questionnaire (work conditions, time of profession, customary travelling period, hours of work per Day and rest hours, use of alcohol and amphetamines)
27	2007	Descriptive	Workers from a petrochemical industry in the South of Veracruz, Mexico	Files of personal, biological and cultural data; Audit and the affection related to the alcohol intake questionnaire (Carca)
28	2007	Transversal	Students teenagers workers and non-workers of the public school system of Cuiabá, MT	Questionnaire of the IV Survey on the drug use among students of elementary and middle/high schools of 10 Brazilian capitals; HMO and QMPA
29	2008	Transversal	Long distance truckers	Questionnaire Work-Related Safety and Violent Victimization Survey, tactical conflict scale, assessment of harassment in the workplace, monitoring of the trucker's tension, stress perception scale, Cage and demographic characteristics
30	2008	Descriptive	Industrial sector workers	Life style and leisure habits of industrialists questionnaire
31	2008	Transversal	Workers of the service sector – motorcycle taxis	Questionnaire (social-demographic characteristics, work profile, traffic behavior, if there is alcoholic beverage intake, frequency of ingestion, recurrence of this habit per day, if drives under the influence, normally ingested beverage etc.)
32	2008	Transversal	Workers	General Health Questionnaire - 12 (GHQ-12) and Maslach Burnout Inventory (MBI)
33	2008	Epidemiological	Industrial sector workers	Baecke questionnaire, questionnaire (smoke habit, intake of alcoholic beverages etc.)

Figure 1 – Characteristics of the selected studies. Rio de Janeiro, RJ, Brazil, 2010

## Discussion

It is understood, nowadays, that the flexibility of work is present in Brazilian society and, that is why, many workers find in drug use a form of escape<sup>(7)</sup>. The analyzed studies show that there was a concern with a significantly heterogeneous group of workers, but it calls attention the fact that most of them come from the service production sector, strongly affected by the process of productive restructuring.

Some years ago, the use of drugs in the workplace was underestimated by companies. However, it is seen that the companies nowadays has been concerned with the incidence increase of these situations<sup>(8)</sup>. The results of the analysis of the publications found in this review confirmed that there is an increasing concern with the theme, expressed in the concentration of publications in the last few years.

Therefore, the data collection tools are presented that were used by the selected studies, in order to know the instruments focused on the healthcare of the worker, that approach the theme alcohol and other drugs.

The Questionnaire was used: relation of alcohol intake with the profession (QRCAP), made by one of the researchers, with the objective of describing alcohol intake used by garbage collectors. It is based on the disorder identification test by alcohol use (Audit), to identify and stratify alcoholism<sup>(9)</sup>.

To compare the prevalence of the recent use of psychoactive population of working and non-working teenagers, enrolled in the elementary public school system in the urban area of Cuiabá, MT, the questionnaire used was applied in the IV Survey on the use of drugs among students of elementary and middle/high school in 10 Brazilian

capitals<sup>(10)</sup>, which was adapted<sup>(11)</sup> to the Brazilian reality and tested<sup>(12)</sup> in the context of Cuiabá. The instrument of auto-filling seek to identify the recent use (intake for one or more times in the 30 days prior the application of the questionnaire) of alcohol and other drugs, the age of the first use, social-demographic data, school and healthcare behavior, like sports. Also other authors<sup>(13)</sup> estimated the prevalence of the intake of alcohol and alcoholism among working and non-working teenage students of the public school system in Cuiabá, MT, using the same instrument, using the same instrument, without the teacher's presence. Adding some questions on alcoholism, work and family<sup>(14)</sup>. For the detection of alcoholism, the Cage test (Cut-down; Annoyed; Guilty & Eye-opener) was used, with a cut-off point of two or more affirmative answers, which suggests a "positive tracking" for the abuse or dependency of alcohol. In these studies, however, the work variables were assessed in the school context, with a student population group, which can represent a limit for the assessment of specific work questions.

The tests hypothesis was the association between recent migration, work in the petrochemical industry and the excessive consumption of alcoholic beverages in workers of the industrial section of the metropolitan area of Salvador, BA, assessing the role of several social-economic and demographic variables as confounding or modifiers of the effects. The social-demographic data of family members of each individual were recorded in a Family File. The following instruments were used: migratory and occupational history (HMO) and the questionnaire of psychiatric morbidity of adults (QMPA), used to identify users of alcoholic beverages. The easy application, in

this case, came up as an important methodological issue, regarding the population of variable education like the adult worker of the industry<sup>(15)</sup>.

An anonymous questionnaire containing 19 multiple choice questions, approaching working conditions (time of profession, period of travels, hours of work per day and vacation time) and use of alcohol and amphetamines (frequency, motivation and location of use, location of acquisition and if there was any involvement in traffic accidents) among highway truckers. The truckers were approached in a gas station in Passos, MG, when they were attended at a mobile health unit<sup>(16)</sup>.

The Cage, was again used, assessing the indicators of validity – sensitivity, specificity, positive predictive value – among the employees of the Dean's Office at the Campus of the University of São Paulo (USP), using the structured clinical interview (SCID 2.0) for the 4<sup>th</sup> edition of the Diagnosis and Statistical Manual of Mental Disturbances (DSM-IV). The social-demographic questionnaire was applied followed by the Cage and the SCID 2.0. The indicators of the Cage's validity were analyzed through the results of the SCID 2.0 for abuse and alcohol dependency<sup>(17)</sup>.

The Cage is the tool used for the detection of problems related to alcohol use, and in the authors' assessment, demonstrated to be a less intimidating tool, of easy and quick application. The Audit as well as the Cage are widely used tools in the tracking evaluation of problems related to alcohol. The Audit was developed specifically to assess problems related to drinking habits, while the Cage is the standard tracking tool for the detection of alcohol dependency<sup>(17)</sup>.

To know the way the personal, biological, social-cultural factors weigh-in alcohol intake, among workers of the petrochemical industry in the South of Veracruz, Mexico, using the personal, biological and cultural data files, and two tools: the Audit and the questionnaire of affection related to alcohol intake (Carca), adapted from a scale of multiple affection adjectives<sup>(18)</sup>.

The usefulness of the Audit and the Cage was assessed as for the identification of binge drinking or episodic heavy drinking in highly qualified workers. The Audit reached a sensibility of 35% in the identification of the interviewees that reported the binge drinking, and a specificity of 89% in identifying with precision the people that the did not report the binge drinking. A more precise method to assess binge drinking seems to be linked directly to the questioning of a larger intake of alcoholic beverages in only one occasion<sup>(19)</sup>.

The Audit was also applied to a group of sugarcane cutters from a sugar-alcohol agricultural industry, in the sugarcane crop fields of Ribeirão Preto, in order to verify the intake of alcohol and identify the risk drinkers. The social-demographic data was collection by a second questionnaire<sup>(20)</sup>.

The efficacy of the training was also assessed for the prevention of psychoactive substance abuse in the workplace, among 450 North American workers of several categories, assessing, mainly, short-term changes

in attitudes, knowledge, and variables related to the work environment and, then, if the behavior of asking for help changed in long-term or 6 months after the training by means of the Employee Assistance Program (EAP). A questionnaire was applied called *Employee Health and Performance in the Workplace*, by a trained staff<sup>(21)</sup>.

In the perspective of assessing the results of a prevention program, other authors<sup>(22)</sup> have used the Health Behavior Questionnaire (HBQ), validated by the researchers in previous studies. The HBQ measures the use of alcohol and attitudes; prescription and intake of illegal drugs; opinions on health, drinking, and the drug use; mechanisms and strategies for stress relief; and use of health services and the prevention program. Substance abuse and mental health problems were identified through the 9<sup>th</sup> Review of the International Disease Classification, Clinical Modification (CID-9-CM). Some researchers<sup>(23)</sup>, also focusing on the EAP, investigated on creed, social support and the probability of an employee go to the Program due to some problem related to drinking habits.

With the specific intent of studying the existing relations between violence in the workplace and drug use by women workers, a set of instruments were agreed upon: questionnaire on violence in the workplace, developed by the International Labor Organization (ILO) and other organizations, and an in-depth interview guide, created by the researchers in order to guide the interview and obtain only the relevant information for a qualitative investigation of perception<sup>(24)</sup>.

In the perspective that becoming sick, from working conditions, affect the intake of substances, we seek to determine the extent, the pattern and the predictive factors of psychological morbidity and the depletion (Burnout syndrome) among professionals that abuse of psychoactive substances. The psychological morbidity was defined with the score on the *General Health Questionnaire – 12* (GHQ-12). In this case, the assumed was, since they were already user in a situation of abuse, the tracking of the Burnout condition would evidence the strength of association between these two conditions<sup>(25)</sup>.

The most recent concern between alcohol and drug intake and traffic safety is seen in the study<sup>(26)</sup> made with long distance truck drivers. The participants filled out a questionnaire on work safety, designed by the research team entitled *Work-Related Safety and Violent Victimization Survey*. The following scales were also used: tactic conflict scale, assessment of harassment in the workplace, monitoring of truck driver's tension, stress perception scale and Cage. Therefore, the concern is clearly seen to widen the inclusion of variables by means of several instruments.

They sought to investigate the impacts of problems related to alcoholism on the job, analyzing a random structure of men and women who were in the job the longest in six States in the South of the USA (Alabama, Arkansas, Georgia, Louisiana, Mississippi and Tennessee). The participants of the research were interviewed by telephone, discussing an issue of alcoholism. The interview also included questions related to the job and demographic

information, like age, gender, race/ethnicity, marital status, size of family, education, geographic location (rural or urban and district of residence), experience in the military and general health state. It was the only study that mentioned telephone interview<sup>(27)</sup>.

The relation between the stressful situations in the workplace and the reasons for the use of alcohol was the objective of a research<sup>(28)</sup>. The participants answered some questions related to stress in the workplace, reasons to drink, use of alcohol and problems related to alcohol.

The characterization of the risk factors from the workplace, associated to the history of dependency or abuse of psychoactive substances, in patients from four recovery centers and members of the Alcoholics Anonymous brotherhood from the city of Florianópolis, was made by applying of a scale similar to Likert's, inventory of the risk factor from the workplace associates to the abuse of psychoactive substances, comprised of 62 affirmatives<sup>(29)</sup>.

The use of stimulants, the complaints related to sleep and the mood of 300 truck drivers from all over Brazil were investigated, through the application of the following questionnaires: Pittsburgh sleep quality index (PSQI), Epworth sleepiness scale (ESS), questionnaire on the use of medication and drugs, MINI questionnaire (*Mini International Neuropsychiatric Interview*), and the *Beck Depression Inventory* – BDI<sup>(30)</sup>.

To monitor and characterize the changes in leisure physical inactivity and other health risk factors, in industrial workers from the States of Santa Catarina and Paraíba, the lifestyle and leisure/industrialists questionnaire was used, already validated in the Brazilian context<sup>(31-32)</sup>.

Such questionnaire was used in several researchers of the Social Industry Services (SESI) in partnership with the Research Center of Physical Activity and Health (NuPAF) of the Federal University of Santa Catarina (UFSC). It is divided in four modules: personal information, demographic and social-economic characteristics of the subjects, health and preventive behavior indicators (sleep quality, level of stress, depression, perception of life at home, at work and leisure, frequency in smoking and alcoholic beverage intake, blood pressure control, cholesterol and diabetes), physical activity and leisure options, control of body weight and eating habits<sup>(32)</sup>.

To know the possible risk factors related to the habits and/or customs in the work place, besides the use and abuse of alcohol and other drugs among workers from a company, installed in a petrochemical area, a questionnaire was used comprised of open and closed questions, in order to raise such information and the social-demographic and occupational profile of the workers, the degree of satisfaction with work and position, interpersonal relations with co-workers and management, knowledge on the phenomenon surrounding alcohol and other drugs, among others<sup>(4,33)</sup>.

Some tools were applied in women workers living in the metropolitan area of Monterrey (Mexico) and in the city of Rio de Janeiro, in order to assess the proportion of drug use, identify the possible labor and social-demographic risk factors, and the existence of violence

in the workplace. The tools were: social-demographic and labor questionnaire (*Encuesta Social Demográfica y Laboral* – ESDyL), TWEAK questionnaire – measures the use and abuse of alcohol, assessment table of drug use – records the frequency in the use of illegal drugs some time in life, over the last 12 months, the last 6 months, the last month and the last 15 days; and violence in the workplace questionnaire – identifies the frequency and the types of violence present in the work environment and their consequences<sup>(5,34)</sup>.

Again, studying women workers who resided in communities of Monterrey, Mexico, from Lima, Peru, and Rio de Janeiro, Brazil, in order to determine the proportion of drug use, the work and personal risk factors that might influence the use of substances, violence in the workplace and its relation to drugs. For such, they used the tools mentioned above<sup>(6)</sup>.

A study was made in the general worker population of Chile, using a questionnaire based in the national study on drugs in Chile. This questionnaire contains a set of questions that enables the estimation of the prevalence rate of legal and illegal drugs, referent to the last month and the last year, the inappropriate use of psychoactive and/or pharmaceutical substances, in which the intake is without a medical prescription<sup>(35)</sup>.

The general health indicators, demographical and social-economical data were investigated in a group of federal employees. The questionnaire of readiness for physical activity (Q-PAF) was applied, adapted from the Ministry of Health of Canada, to assess their current state of health, regular use of medication, prevalence of tobacco use, alcohol intake, diseases in the several systems, family history and other information<sup>(36)</sup>.

Student workers were investigated from the course of electro-mechanics and textiles from the Federal Center of Technological Education of Santa Catarina (CEFET/SC). The information sought was: social-demographic, life style, labor and physical activities, stress level, eating habits, risk behavior (smoking and use of alcoholic beverages experimentally and regularly, as well as the age they started), preventive behavior (identifying the use of drugs and seat belt)<sup>(37)</sup>.

The workers from a private company from the electrical sector in the State of São Paulo were analyzed by means of self-applied tools, like: the work capacity index (WCI) – able to detect and assess in advance alterations and subsidizing the choices in preventive measures, work stress scale (WSS) – enable the assessment of 23 different aspects of work, from the perception of the workers themselves and obtain a general average of the stress in the workplace, *Medical Outcomes Study 36 – Item short form health survey* (SF-36) – is a generic questionnaire of health evaluation, comprised by 36 items, non-specific for a determined age, disease or treatment group, Baecke questionnaire – investigates the habitual physical activity of the last 12 months, Fagerström tolerance questionnaire – has the purpose of identifying and measuring nicotine dependency. Such questionnaire is comprised by three questions that assess morning smoking, considering as

indicator the abstinence syndrome, and three questions to assess smoking. The final score varies from 0 to 10 points, which can be categorized into four degrees of dependency, and the Audit<sup>(38)</sup>.

The executives from two textile units, from São Caetano do Sul and São José dos Campos, were evaluated as for the habitual physical activity and the health conditions. To assess the habitual physical activity over the last 12 months the Baecke questionnaire was used. Regarding the smoking, the authors created four questions their smoking habits, base in the questionnaires of *The Third National Health and Nutrition Examination Survey – NHANES III*<sup>(39)</sup> and the *Behavioral risk factor surveillance system survey questionnaire – BRFSS*<sup>(40)</sup>, both population-based, made in the USA. In the assessment of alcoholic beverage intake, one question on the current use of alcohol was created based in the consumption module of the National Cancer Institute – Inca<sup>(41)</sup> and the BRFSS<sup>(40)</sup>. These tools assessed the proportion of people that consume alcoholic beverages (current intake – at least one dose over the last 30 days), and estimates the percentage of individuals that consume above the recommended (risk consumption)<sup>(42)</sup>.

In the investigation of the preventive behavior and risk of traffic accident, referred by regulated motorcycle-taxi drivers in Fortaleza, Ceará, a self-applied questionnaire was used, containing 41 questions on the social-demographic characteristics, the work profile of the motorcycle-taxi drivers, the behavior in traffic in relation to the motorcycle (if they take more than one passenger, if answers the cell phone in traffic, if ingests alcoholic beverages, frequency of ingestion, the recurrence of this habit per day, if drinks and drive, the beverage normally ingested etc.)<sup>(43)</sup>.

The attitudes of the Family Health Program (PSF) facing the use, abuse and dependency on drugs were investigated using a questionnaire in the PSF teams in the city of Araçatuba, SP. The questionnaire was developed and structured to be applied individually: social-demographic characteristics; check-list on the substances that are considered drugs of abuse by the PSF professionals, healthcare to the drug users in the PSF, check-list regarding the feelings of a PSF professional in dealing with the clientele with problems related to drug use and The Seaman & Mannello Nurse's *Attitudes Toward Alcohol and Alcoholism Scale*, which contains 30 evaluations on creed, attitudes and care provided by nurses in relation to alcoholism<sup>(44)</sup>.

The questionnaires were less costly, required less time and effort to manage, a has as advantage of the possibility of anonymity, which can be crucial in obtaining information on legal or deviated behavior, or on embarrassing characteristics<sup>(45)</sup>. When investigating the standard of alcohol intake and other drugs among workers, this can be of special methodological interest, since the worker tends to feel judged and intimidated by the approached topic, imagining that eventual work sanctions can occur as a result of the study. In the face to face interview, the response index tends to be higher, because the respondents has less probability of ignoring the questionnaire, but has the risk of bias from the interviewer.

## Conclusions

As synthesis of the results, the questionnaire was the most used collection tool by the studies, and we observed a search for the measurement of the social-demographic, labor and psycho-social characteristics for the association to the prevalence of consumption indexes and standard of alcohol and drug use.

Cage and Audit were the most highlighted, especially, for being tools used in the assessment of tracking of problems related to alcohol. Regarding the use of scales and questionnaire on work variables, these were, most part, obtained from aspects subjected by the worker, such as the Burnout and stress scale. However, neither the Audit nor the Cage reached the adequate sensibility, as well as specificity, as tools for tracking assessment of binge drinking.

The assessment of objective working conditions does not appear as a contemplated dimension in the studies. Especially, situations related to work organization, which suffer important changes in the context of annual productive restructuring, with a consequent increase in intensity and rhythm can become aspects for future studies, in the search for a better comprehension about a complex phenomenon like the use and abuse of substances and its relation to the workplace.

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