ORIGINAL ARTICLE

Public perception of alcohol dependence
A percepção popular sobre a dependência alcoólica

Érica de Toledo Piza Peluso,[1] Sérgio Luís Blay[1]

Abstract

Objective: *To describe how the population of the city of São Paulo identifies alcohol dependence, which causes they attribute to this disorder and what is reported regarding stigma perception, risk of violence and emotional reactions.* **Method:** *Cross sectional study involving a probabilistic sample of 500 individuals in São Paulo aged 18 to 65 years. A structured questionnaire was used and started with a vignette describing an individual with alcohol dependence according to the DSM-IV and ICD-10, followed by a questionnaire divided into various sections examining the causes, stigma, risk of violence and emotional reactions to the case presented in the vignette.* **Results:** *Less than 20% of the subjects reported to believe this was a mental illness. The causes considered most relevant were psychosocial ones, followed by moral causes. Alcohol dependence was associated with a high risk of violence and stigma by the part of others. In contrast, reactions declared by the subjects about their probable attitude were mostly positive.* **Conclusion:** *Alcohol dependence is seen as a psychosocial and moral problem. Negative images predominate regarding individuals with this disorder.*

Descriptors: *Attitude to health; Alcoholism; Public opinion; Public health; Alcohol-related disorders*

Resumo

Objetivo: *Descrever como a população da cidade de São Paulo identifica a dependência alcoólica, quais causas atribui para explicar esse transtorno, e avaliar o que é percebido em relação ao estigma, risco de violência e as reações emocionais.* **Método:** *Foi realizado estudo de corte transversal com uma amostra probabilística de 500 indivíduos residentes em São Paulo, com idade entre 18 e 65 anos. Utilizou-se um questionário estruturado que se iniciava com a apresentação de uma vinheta descrevendo um indivíduo com dependência alcoólica (segundo o DSM-IV e a CID 10), seguido de um questionário dividido em várias seções examinando as causas, estigma, risco de violência e as reações emocionais ao caso apresentado na vinheta.* **Resultados:** *Menos de 20% dos entrevistados disseram acreditar se tratar de uma doença mental. As causas consideradas mais relevantes foram de natureza psicossocial, seguidas por causas de natureza moral. A dependência alcoólica foi associada a elevado risco de violência e a estigma por parte de outros indivíduos. Em contraste, as reações declaradas pelos próprios entrevistados sobre as suas atitudes foram principalmente de natureza positiva.* **Conclusões:** *A dependência alcoólica é vista como um problema de natureza psicossocial e moral. Predominam imagens negativas em relação aos indivíduos com este transtorno.*

Descritores: *Atitude frente à saúde; Alcoolismo; Opinião pública; Saúde pública; Transtornos relacionados ao uso de álcool*

[1]Department of Psychiatry, Universidade Federal de São Paulo (Unifesp), São Paulo (SP), Brazil

Financing: This study was granted by the Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP - Grant number: 01/03423-0).
Conflict of interests: None
Submitted: April 25, 2007
Accepted: July 23, 2007

Correspondence
Érica de T. P. Peluso
Departamento de Psiquiatria, Universidade Federal de São Paulo
Rua Botucatu, 740
04023-900 São Paulo, SP, Brasil
Phone: (55 11) 5576-4160 Fax: (55 11) 5571-7254
E-mail: pelusoe@terra.com.br

Introduction

Various recent studies have evaluated the public perception of mental disorders, especially schizophrenia and depression.[1] However, few studies have focused on the popular perception of alcohol dependence although this is one of the disorders that mostly affects the global public health. It causes great personal, familial and social costs, and is considered one of the most negative disorders in the general population's point of view.

The studies about popular perception show that individuals with alcohol dependence are viewed as more responsible for their problem, and more violent and unpredictable than other individuals affected by mental disorders.[2,3] They provoke more negative reactions in the population such as a desire for greater social distance and greater rejection than individuals with other disorders, with the exception of drug dependence.[4,5] In addition, alcohol dependence is one of the conditions for which the public is least willing to spend public financial resources.[6,7] These negative reactions are even more frequent than the ones reported for schizophrenia.

The existence of social reactions like these in relation to alcoholics can generate discrimination both in the personal and structural level.[8] It negatively influences, for example, the search for treatment, these individuals' chance of recovery and the allocation of resources for research and treatment.

There have been some studies in our society that focus on conceptions and attitudes about alcohol and alcoholism in specifics groups such as students.[9,10] However, little is known about how the general population perceives alcohol dependence.

The objective of this article is to find out how the population of the city of São Paulo perceives this disorder and what causes are attributed to it. Other objectives are to evaluate the perception of stigma, the risk of violence and the emotional reactions linked to individuals with this condition, and also possible determinants of these responses.

Method

1. Sampling

In May and June 2002, a household survey was carried out to evaluate the population's perception of alcohol dependence. The sample was composed of residents of the city of São Paulo aged between 18 and 65 years. A pre-determined number of 500 interviews was selected, with the sample size being estimated by means of the statistical program "Stacts Direct software". Thus, a minimum number of 457 individuals were reached, with an estimated response frequency of 5%, a 2% standard deviation and 95% confidence interval. Estimated frequencies were based on our pilot study and on international studies with similar methodology.

A random, multiple-stage sample with a substitution strategy was used. In this procedure, groups of 10 subjects should be interviewed across the districts of the city of São Paulo. This distribution was proportional to the population of these districts, according to the demographic census performed by the *Instituto Brasileiro de Geografia e Estatística (IBGE* -Brazilian Institute of Geography and Statistics) in 2000. In the next step, census tracts were randomly selected from the districts and two blocks were randomly selected in each census tract. Five interviews were conducted on each block. After selecting the blocks, the first household to be approached was defined through the random selection of a crossing of two streets or avenues. Other households were selected using a systematic procedure. In each household, one resident aged between 18 and 65 years was selected to participate in the interview based on the closest birthday to the date of the interview.

This study was approved by the Ethics Committee of the Universidade Federal de São Paulo (Unifesp) – process number 0027/02.

2. Instrument

Professional trained interviewers applied a structured face to face questionnaire. The questionnaire was elaborated based on questionnaires used in similar studies[1,5] and on a pilot study accomplished with the local population using semi-structured questions.

The evaluation of the perception of alcohol dependence began with the reading of a vignette that described a 45-year-old individual with the symptoms of the disorder according to the diagnostic criteria of the DSM-IV and ICD 10. The vignette was constructed by the authors similarly to previous models.[11] In order to make sure that the vignette reflected an individual with alcohol dependence, three experienced psychiatrists have evaluated the instrument up front. The sex of the individual described in the vignette (José or Maria) was randomly distributed between interviews.

3. Vignette

"José (Maria) is 45 y. o. and has always used alcoholic beverages. However, in recent months José (Maria) has drunk much more than usually to attain the same effects as before. Every time he (she) tries to stop or decrease drinking, he (she) becomes agitated, suffers nausea, trembling and cold sweats, that are alleviated by the ingestion of more alcohol. Even knowing that alcohol is harmful to health, José (Maria) is not able to stop drinking. His (her) boss has noticed that he (she) has been quite absent from work and his (her) production is well below normal."

Identification as a Mental Illness

After the presentation of the vignette, the subject answered the following closed question about the identification as a mental illness: "Do you believe that he (she) has some mental illness? Yes or no".

Causal attribution

Causal attribution was evaluated through the presentation of eighteen possible causes: isolation, unemployment, family or love problems, excess of work, poor diet, drug use, recent stressful situation, childhood problems, head injury, weakness of character or lack of will power, lack of self-esteem, being a nervous person, influence of evil eye or witchcraft, lack of faith in God, destiny or predestination, virus or infection, genetic problems, brain problems. For each cause presented, the subject responded accordingly to a five-point scale ranging from "totally agree" to "totally disagree". Thus the subject had to chose which cause(s) he (she) considered the main cause(s) for the situation described in the vignette among the eighteen possibilities presented.

Stigma perception

Stigma perception was evaluated through two questions:

"If people who spend time with José (Maria), such as friends, acquaintances and work colleagues, knew what was happening to him, do you believe they would have negative ideas about him?"

"If people who spend time with José (Maria), such as friends, acquaintances and work colleagues, knew what was happening to him, do you believe they would avoid having contact with him?"

Emotional reactions

Eight questions were presented, each evaluating a type of reaction: desire to help, sympathy, warmth, pity, fear, irritation, need for distance, indifference.

"Now I would like to know which reactions or feelings a person like José (Maria) would provoke. Do you feel ___________?"

Perception of risk of violence

The perception of risk of violence was evaluated by means of two questions. The first examined the risk of general violence (without treatment).

" In your opinion, could a person like José (Maria) commit a violent act against other people?"

The second evaluated the risk of violence with treatment.

"If a person like José (Maria) was receiving appropriate treatment, do you believe that he could commit a violent act against other people?"

Personal experience

Personal experience was evaluated through the following question: "Have you ever had a problem with your nerves (which is a common expression in Brazilian popular idioms that refers to psychiatric disorders), mental or emotional problems, depression, problems due to the use of alcoholic beverages or drugs?"

4. Statistical analysis

Exploratory data analysis (frequency of distribution) was performed. Logistic regression and analysis of variance were employed in order to verify possible factors associated with responses given by the interviewees.

Logistic analysis was carried out having as dependent variables: stigma perception and perception of risk of violence (without treatment).

These analyses included the following independent variables: sex (masculine, feminine), age (18-29 years old, 30-49 years old, 50-65 years old), religion (no religion, Catholic, Protestant), schooling (0-7 years of formal education completed, 8 or more years completed); social class (classes A/B/C, D/E, according to the classification system of the Brazilian Association of Institutes of Market Research), identification of the problem as a mental illness (yes/no), type of cause attributed to it, personal experience with mental health problems in general (yes/no). The questions about stigma perception also included the independent variable for perception of risk of violence (without treatment) (yes/no). The attributed causes were submitted to factor analysis (analysis of the principal components with varimax rotation) to reduce the eighteen possible causes to a smaller number of factors. Each of the factorial scores was considered an independent variable.

The "enter" method was used and non-significant variables ($p > 0.05$) were manually removed, one by one, until the construction of the final model.

Analysis of variance was carried out with the questions about emotional reactions. Questions about reactions were initially submitted to factor analysis (analysis of the main components with varimax rotation) to reduce the eight reactions to a smaller number of factors. Each of the factorial scores was treated as a dependent variable. The independent variables were the following: sex (masculine, feminine), age (18-29 years old, 30-49 years old, 50-65 years old), religion (no religion, Catholic, Protestant), schooling (0-7 years completed, 8 or more years completed); social class (classes A, B, C, D/E, according to the classification system of the Brazilian Association of Institutes of Market Research - Abipeme), identification of the problem as a mental illness (yes/no), personal experience with mental health problems in general (yes/no) and perception of risk of violence (without treatment) (yes/no).

The level of significance was defined as 0.05.

Statistical analyses were accomplished using the "Statistical Package for the Social Sciences" (SPSS), version 10 for Windows.

Table 1 – Sociodemographic characteristics of the sample and the total population of the city of São Paulo

	Sample (n = 500) %	Total population [1] %
Sex		
Male	45.6	45.1
Female	54.4	52.9
Age in years		
18-29	32.6	32.8 [2]
30-49	42.0	42.0 [2]
50-65	25.4	25.2 [2]
Years of education		
0-3	9.6	15.7
4-7	29.4	32.4
8-10	18.8	19.4
11 or more	42.6	32.1

[1] *Data from the first findings of the 2000 Census from the IBGE for the population of the city of São Paulo for those over 10 years of age*
[2] *Data for the population over 18 years old*

Results

Table 1 presents the main socio-demographic characteristics of the study sample and of the general population of the city of São Paulo (10,434,252 inhabitants according to the Demographic census of 2000 produced by the IBGE).

1. Identification of the problem as mental illness

Among the interviewed subjects, 18.8% believed that the individual with the symptoms of alcohol dependence was mentally ill.

2. Attributed causes

Table 2 presents the percentage of subjects who agreed with each of the causes presented as well as the percentage of those who disagreed. In addition, the percentage of subjects who chose each of the causes as more important is also presented.

Most of the factors presented were considered as possible causes of alcohol dependence. The factors related to the social and interpersonal environment were those most frequently considered as possible causes. This tendency is even clearer

Table 2 – Percentage of respondents who agree, disagree and choose one of the causal factors presented as most important (n = 500)

	Agree[1] %	Disagree[2] %	Main cause %
Unemployment	91.2	6.2	22.0
Isolation	86.8	10.6	18.5
Drugs use	93.0	5.6	17.3
Family problems	88.8	7.4	8.1
Weakness of character	82.0	14.0	7.7
Lack of faith in God	71.8	24.0	7.7
Lack of self-esteem	86.6	9.8	5.8
Childhood problems	78.2	16.8	4.4
Genetic problems	53.8	38.0	4.2
Genetic problems	53.8	38.0	4.2
Stressful event	69.8	24.8	2.4
Brain problem	48.0	42.0	0.8
Poor diet	46.8	43.0	0.6
Head injury	44.6	44.2	0.4
Nervous person	59.4	29.0	-
Virus or infection	26.8	67.4	-
Overwork	31.8	60.0	-
Influence/evil eye	26.4	66.6	-
Fate/predestination	20.4	70.8	-

[1] *Grouped responses (completely agree + agree in part)*
[2] *Grouped responses (completely disagree + disagree in part)*

when the subjects chose the most important cause(s). The most frequent response was "unemployment", followed by "isolation". Responses that place responsibility on the individual such as "weakness of character" or "lack of self-esteem" were considered relevant. Causes of a biological nature were considered less relevant, as well as supernatural causes that do not depend on the individual's will.

Factor analysis

Although five factors were initially identified with *eigenvalue* > 1, a three-factor solution was preferred in that it presented a more meaningful structure. The three factors are: uncontrollable influences, psychosocial and moral, that explain 42.18% of the variance. The composition of the factors is as follows:

1) uncontrollable influences (*eigenvalue* 3.31, variance explained 18.42%): virus or infection (factor weight 0.73), head injury (0.68), brain problem (0.67). fate/predestination (0.60), poor diet (0.54), spell/evil eye (0.52), overwork (0.46), nervous person (0.45), genetic problem (0.42).

2) psychosocial (*eigenvalue* 2.58, variance explained 14.37%): unemployment (factor weight 0.76), family problems (0.72), isolation (0.64), childhood problems (0.51), recent stressful event (0.50).

3) moral (*eigenvalue* 1.68, variance explained 9.38%): lack of self-esteem (factor weight 0.79), weakness of character (0.74), lack of faith in God (0.48)

3. Perception of risk of violence

Eighty-one percent of the subjects believe that the individual described could commit a violent act, while 10.8% responded "maybe" and 8.2% did not consider it possible.

The logistic regression analysis showed that higher schooling (p = 0.05, OR = 1.91, CI 95% = 0.98-3.73) and the attribution of moral causes (p = 0.00, OR = 1.55, CI 95% = 1.17-2.06) were the only variables associated with the perception of high risk of violence.

If this individual was receiving treatment, the perception of subjects changed significantly: only 16.4% believed that the individual described could commit an act of violence, while 19.3% responded "maybe" and 73.3% did not consider this possible.

4. Stigma perception

Most of the subjects believe that the people who spend time with the individual described in the vignette will develop negative ideas (68.2%) and promote distancing (60.4%) if they get to know about the drinking problem.

The results of the logistic regression analysis showed that among the evaluated variables, only the perception of risk of violence is associated to the perception of the existence of negative ideas (p = 0.00; OR = 2.50; CI 95% = 1.30-4.81).

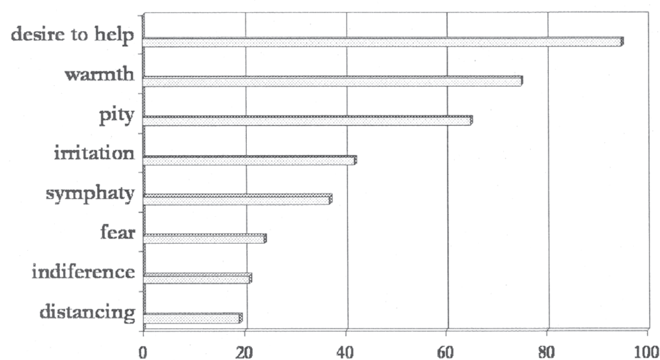

Figure 1 - Emotional reactions to alcohol dependence

Table 3 – Results of analysis of variance for "negative reactions"*

	F	p	Mean difference (SE)	p
Age	7.48	0.00		
(30-49) - (18-29)**			-0.41 (0.11)	0.00
(30-49) - (50-65)**			-0.27 (0.12)	0.02
Education	8.77	0.00		
(high) - (low)**			0.32 (0.11)	0.00
Religion	4.10	0.01		
(protestant) – (without religion)**			0.33 (0.16)	0.04
(protestant) – (catholic)**			0.33 (0.11)	0.00
Risk of violence	5.62	0.01		
(no) - (yes)**			0.39 (0.16)	0.01

** Only variables that reached significance were included*
*** Difference between (first category) – (second category)*

5. Emotional reactions

Figure 1 presents the reactions reported by the subjects.

Most of the reactions could be considered positive toward the individual in the vignette.

Factor analysis indicated two factors that explain 46.31% of the variance.

Factor 1: "negative reactions" (*eigenvalue* 1.88, variance explained 23.56%): distancing (0.76), fear (0.74), irritation (factor weight 0.64).

Factor 2: "positive reactions" (*eigenvalue* 1.82, variance explained 22.75%): kindness/warmth (0.67), pity (factor weight 0.60), sympathy (0.59), desire to help (0.54).

The results of the analysis of variance are presented in Tables 3 and 4.

These results indicate that the following variables are associated with emotional reactions: age, religion, schooling, identification as mental illness and perceived risk of violence.

Protestants, individuals with higher schooling and those who reported to not believe in the risk of violence were the ones who most frequently reported negative reactions. On the other hand, individuals from 30 to 49 years old were those who least frequently reported reactions of this type.

Individuals with less schooling, who believed in the risk of violence and did not identify the problem as a mental illness were the ones who most frequently reported positive reactions.

Table 4 – Results of analysis of variance for "positive reactions"*

	F	p	Mean difference (SE)	p
Education	5.18	0.02		
(high) - (low)**			0.26 (0.11)	0.02
Identification as mental illness	5.42	0.02		
(yes) - (no)**			0.28(0.12)	0.02
Risk of violence	6.04	0.01		
(no) - (yes)**			0.41(0.17)	0.01

** Only variables that reached significance were included*
*** Difference between (first category) – (second category)*

Discussion

To the best of our knowledge, this is the first Brazilian population study that tryed to assess the public perception of alcohol dependence. The results show that most of the population does not identify the symptoms of alcohol dependence as a mental illness. Also, it is frequent to associate these symptoms to psychosocial causes and, to a lesser degree, to causes that place responsibility on the afflicted individual. In addition, individuals with alcohol dependence are perceived as violent and capable of arising negative reactions among members of the community, such as negative ideas and reactions of avoidance and distancing.

1. Identification and attributed causes

Interviewees rarely identify the symptoms of alcohol dependence with the concept of mental illness. This finding has also been observed in other international studies that have used similar methods.[3,12]

Causal attributions have mainly an interpersonal or social nature, though causes attributing responsibility to the individual's lack of character were also considered relevant. These results indicate the coexistence of a psychosocial model and a moral model in the population's vision about the etiology of alcoholism. Other international studies have also found similar results.[3,13]

2. Risk of violence

Subjects perceived risk of violence to be strongly associated with alcohol dependence. However, the possibility of violent acts committed by people with this disturbance greatly decreases in the presence of treatment according to these subjects.

International studies also show that the public associates mental disorders with violence, especially chemical and alcohol dependence. Link et al. evaluated the perception of the population of the USA in relation to the risk of violence of people with various disorders and their findings were similar to ours.[3] The disorder associated with the highest risk of violence was cocaine (87%), followed by alcohol dependence (71%). Similar results were obtained in a study carried out in the United Kingdom.[2] Individuals with schizophrenia, drug and alcohol dependence were perceived as dangerous by about 70% of the sample and as unpredictable by 80%.

To what extent does the perception of the population reflects a real association between alcohol dependence and violence? There is considerable empirical evidence that alcohol use is frequently associated with various elements involving violence such as domestic violence, traffic accidents, homicides, suicides, etc. However, this is a complex relationship and there is not a simple direct causal relationship between alcohol and violence.[14,15] In addition, violent events often involve individuals who use alcohol occasionally or socially and are not dependent.

Among the variables evaluated, only schooling and causal attribution showed statistically significant association with perceived risk of violence. Individuals with higher schooling were more likely to identify alcohol dependence with violence. One hypothesis raised is that these individuals had access to scientific information or information from the media about the existence of violent events involving the use of alcohol.

Moral causal attributions were also associated with greater risk of violence. One possible explanation is that individuals with less self-esteem, will power or faith in God would have a tendency to have a lack of behavioral limits and control of impulses.

3. Stigma perception and emotional reactions

In this study we tried to assess some indicative aspects of stigma presence (negative ideas and avoidance/distancing behavior) although stigma is a broad concept with many components which are difficult to be evaluated.

Most of the subjects believe that the individual with alcohol dependence provokes negative reactions in the social environment, such as generating negative ideas and distancing behavior.

The perception of risk of violence was the only variable associated with stigma perception. Socio-demographic characteristics, identification with mental illness, the type of cause attributed and the experience of the subject were not relevant for this question. The importance of danger for greater social distancing was also observed by Martin et al.[5] in the United States.

When questions were asked about emotional reactions of the subject interviewed, however, reactions that could be considered positive such as desire to help, warmth, pity and sympathy predominated.

It should be noted that there is an important difference between the reactions attributed to other members of society and those admitted by the subjects themselves. The emotional reactions admitted by the subjects are more "positive" than those attributed to others. A possible explanation for this difference may be that population questionnaires investigating attitudes, especially those carried out face to face, are subject to socially desirable answers. In addition, questions that can generate polemical responses are even more likely to generate these types of reactions. This is an issue when evaluating the presence of negative reactions, stigma and discrimination through this type of instrument.[16]

Individuals with higher schooling, Protestants, those in the age range from 18 to 29 and from 50 to 65 years and who do not believe in the risk of violence are those who most frequently reported negative responses while individuals with higher schooling and those who believe in the high risk of violence are those who most frequently reported positive reactions.

The relationship between perception of risk of violence and emotional reactions is an unanticipated finding that is difficult to interpret, in that the perception of risk of violence was expected to increase the negative reactions of the subject as well as increasing stigma perception.

4. Limitations

Some study limitations should be mentioned. This type of study, based on the presentation of a hypothetical situation through a vignette, can produce an artificial situation that may not reflect the real attitude and behavior of individuals in actual situations of alcoholism. The use of questionnaires that touch on opinions and knowledge, especially when personally applied by interviewers, is subject to producing socially desirable responses. This study in particular, carried out by a university (a fact revealed before the interview to all subjects) may have stimulated the expression of opinions closer to scientific knowledge. As in population studies in general, those who accepted to be interviewed may have characteristics distinguishing them from those who did not. In this study, where we used the substitution strategy for individuals who were absent or refused to participate, this caveat may have been more accentuated. However, in relation to the main sociodemographic characteristics, there were no relevant differences between the sample and the general population.

The results of this study carried out in Brazil's largest urban center cannot be generalized to other regions of Brazil with differing economic, cultural and social characteristics. New studies are needed for other regions to verify possible between-regions differences in the popular perception of alcohol dependence.

Acknowledgements

We acknowledge Prof. Dr. Clóvis de Araújo Peres, for his help with the statistical analysis.

References

1. Angermeyer MC, Dietrich S. Public beliefs about and attitudes towards people with mental illness: a review of population studies. *Acta Psychiatr Scand*. 2006;113(3):163-79.
2. Crisp AH, Gelder MG, Rix S, Meltzer HI, Rowlands OJ. Stigmatization of people with mental illness. *Br J Psychiatry.* 2000;177:4-7.
3. Link BG, Phelan JC, Bresnahan M, Stueve A, Pescosolido BA. Public conceptions of mental illness: labels, causes, dangerousness and social distance. *Am J Public Health.* 1999;89(9):1328-33.
4. Angermeyer MC, Matschinger H. Social distance towards the mentally ill: results of representative surveys in the Federal Republic of Germany. *Psychol Med.* 1997;27(1):131-41.
5. Martin JK, Pescosolido BA, Tuch SA. Of fear and loathing: the role of 'disturbing behavior', labels and causal attributions in shaping public attitudes toward people with mental illness. *J Health Soc Behav.* 2000;41(3):208-23.
6. Beck M, Dietrich S, Matschinger H, Angermeyer MC. Alcoholism: low standing with the public? Attitudes towards spending financial resources on medical care and research on alcoholism. *Alcohol Alcohol.* 2003;38(6):602-5.
7. Schomerus G, Matschinger H, Angermeyer MC. Preferences of the public regarding cutbacks in expenditure for patients care. *Soc Psychiatry Psychiatr Epidemiol.* 2006;41(5):369-77.
8. Link BG, Phelan JC. Conceptualizing stigma. *Annu Rev Sociol.* 2001;27:363-85.
9. Borini P, Martins CM, Giovanni M, Guimarães RC. Conceitos, concepções etiológicas e atitudes de estudantes de medicina sobre o uso e abuso de álcool: correlacöes com os padröes de uso - parte 2. *J Bras Psiquiatr.* 1994;43(3):123-31.
10. Maia E, Martins RL, Cesar MP, Baiôco M, Oliveira RO, Menandro PRM, Garcia MLT, Macieira MS. O alcoolismo sob a ótica dos candidatos ao vestibular da Ufes. *Rev Bras Psiquiatr.* 2000;22(2):72-5.
11. Jorm AF, Korten AE, Jacomb PA, Christensen H, Rodgers B, Pollitt P. "Mental health litteracy": a survey of the public's ability to recognize mental disorders and their beliefs about the effectiveness of treatment. *Med J Aust.* 1997;166(4):182-6.
12. Kohn R, Sharma D, Camilleri CP, Levav I. Attitudes towards mental illness in the Commonwealth of Dominica. *Pan Am J Publ Health.* 2000;7(3):148-54.
13. Mulatu MS. Perceptions of mental and physical illnesses in north-western Ethiopia. *J Health Psychol.* 1999;4(4):531-49.
14. Laranjeira R, Dualibi SM, Pinsky I. Álcool e violência: a psiquiatria e a saúde pública. *Rev Bras Psiquiatr.* 2005;27(3):176-7.
15. Minayo MC, Deslandes SF. A complexidade das relações entre drogas, álcool e violência. *Cad Saude Publ.* 1998;14(1):35-42.
16. Thompson AH, Stuart H, Bland RC, Arboleda-Florez J, Warner R, Dickson RA. Attitudes about schizophrenia from the pilot site of the WPA worldwide campaign against the stigma of schizophrenia. *Soc Psychiatry Psychiatr Epidemiol.* 2002;37(10):475-82.