







PREDICTORS OF PROBLEMS RELATED TO THE CONSUMPTION OF PSYCHOACTIVE SUBSTANCES AMONG USERS UNDERGOING PSYCHOSOCIAL TREATMENT

PREDITORES DE PROBLEMAS RELACIONADOS AO USO DE SUBSTÂNCIAS PSICOATIVAS ENTRE USUÁRIOS EM TRATAMENTO PSICOSSOCIAL

PREDICTORES DE PROBLEMAS RELACIONADOS CON EL USO DE SUSTANCIAS PSICOATIVAS ENTRE USUARIOS EN TRATAMIENTO PSICOSSOCIAL

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ABSTRACT

Objective: to analyze the predictors of problems related to the consumption of psychoactive substances among users of a Psychosocial Care Center-Alcohol and Drugs. **Method:** a cross-sectional study with a quantitative approach conducted with 200 users of a Psychosocial Care Center-Alcohol and Drugs from inland São Paulo. The data were collected by means of a sociodemographic questionnaire and through the instrument called Global Assessment of Individual Needs - Short Screener. A descriptive analysis and multiple regression of ordinary least squares were performed searching predictors for the variation in the scale score. **Results:** the users' profile showed 84% males with a mean age of 38.97 years old, white-skinned (85%), living with family members (43.5%) and with informal employment contracts (53%). The predictors corresponding to severity of the substance-related problems were internalization and externalization, crime and violence, schooling and use pattern. In relation to the total scale, the predictors were female gender, age, street situation and use pattern. **Conclusion:** the predictors analyzed pointed to biopsychosocial factors that should be considered in the care process for this population group. The results highlight the need for an interdisciplinary, interprofessional and intersectoral approach that can be guided by the Singular Therapeutic Project.

Keywords: Mental Health; Substance-Related Disorders; Patient Health Questionnaire; Motivation; Mental Health Assistance.

RESUMO

Objetivo: analisar os preditores de problemas relacionados ao uso de substâncias psicoativas entre usuários de um Centro de Atenção Psicossocial em Álcool e Drogas. **Método:** estudo transversal de abordagem quantitativa realizado com 200 usuários de um Centro de Atenção Psicossocial em Álcool e Drogas do interior paulista. Os dados foram coletados por meio de um questionário sociodemográfico e do instrumento denominado Avaliação Global de Necessidades Individuais - Triagem Curta. Realizou-se análise descritiva e regressão linear múltipla de mínimos quadrados ordinários em busca de preditores para a variação no escore da escala. **Resultados:** o perfil dos usuários foi de 84% do sexo masculino com idade média de 38,97 anos, brancos (85%), vivendo com familiares (43,5%) e com vínculo de trabalho informal (53%). Os preditores de gravidade dos problemas relacionados ao uso de substâncias foram internalização e externalização, crime e violência, escolaridade e padrão de uso. Com relação à escala total, os preditores foram sexo feminino, idade, situação de rua e padrão de uso. **Conclusão:** os preditores analisados apontam para fatores biopsicossociais que devem ser considerados no processo de cuidado dessa população. Os resultados destacam a necessidade de uma abordagem interdisciplinar, interprofissional e intersetorial que pode ser norteada pelo projeto terapêutico singular.

Palavras-chave: Saúde Mental; Transtornos Relacionados ao Uso de Substâncias; Questionário de Saúde do Paciente; Motivação; Assistência à Saúde Mental.

RESUMEN

Objetivo: analizar los predictores de problemas relacionados al uso de sustancias entre usuarios de un Centro de Atención Psicosocial de Alcohol y Drogas. **Método:** estudio transversal de abordaje cuantitativo realizado con 200 usuarios de un Centro de Atención Psicosocial de Alcohol y Drogas del interior de São Paulo. Los datos fueron recolectados a través de un cuestionario sociodemográfico y de un instrumento denominado Evaluación Global de las Necesidades Individuales - Análisis Breve. Se realizó análisis descriptivo y regresión lineal múltiple por mínimos cuadrados ordinarios en busca de predictores de la variación en la puntuación de la escala. **Resultados:** el perfil de los usuarios fue 84% masculino, edad media 38,97 años, raza blanca (85%), viviendo con familiares (43,5%) y con relación laboral informal (53%). Los predictores de gravedad de los problemas relacionados con el consumo de sustancias fueron: problemas de internalización y externalización, delincuencia y violencia, educación y patrón de consumo. En cuanto a la escala total, los predictores fueron: sexo femenino, edad, situación de calle y patrón de consumo. **Conclusión:** los predictores analizados apuntan a factores biopsicosociales que deben ser considerados en el proceso de atención a esta población. Estos resultados destacan la necesidad de un abordaje interdisciplinar, interprofesional e intersectorial, que puede ser norteado por el proyecto terapéutico singular.

Palabras clave: Salud Mental; Trastornos Relacionados con Sustancias; Cuestionario de Salud del Paciente; Motivación; Atención a la Salud Mental.

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INTRODUCTION

Using alcohol and other drugs is a common phenomenon in all genders, races and social environments, but problematic use can have numerous consequences for the person and their social network, becoming a global health problem. An increase in the population at a higher risk of drug use is observed in low-income countries, with a tendency to increase by nearly 43% until 2030⁽¹⁾.

It is estimated that 269 million people (or 5.4% of the global adult population) used drugs at least once in 2018⁽¹⁾. An important fact is that approximately 29.5 millions of these drug users (6% of the global adult population) made undue drug use⁽²⁾. Such use can cause significant harms in everyday life, requiring specialized help and treatment; however, only one out of six users diagnosed with alcohol and other drug abuse or addiction has access to a specialized service for this care⁽¹⁾.

In Brazil, the consumption prevalence values in the population aged from 12 to 65 years old are 30.1% for alcohol, 13.6% for tobacco and 3.6% for other illicit drugs. Of these individuals, 6.1% meet the criteria to be defined as addicts and most of them are adolescents in the age group from 12 to 17 years old. In relation to access to health care, only 1.4% of the psychoactive substance users report having undergone some treatment in their life, a fact that is similar at the global level^(2,3).

There are factors associated with problematic consumption of alcohol, tobacco and other drugs; such factors are called “predictors”. The following stand out among those already identified in the scientific literature: being female, being underage, absence of a support network, difficulties in socialization and achievement in life, extroversion and the influence of family and peers⁽⁴⁾. Some mental problems are also considered predictors, such as mood disorders, oftentimes manifested by difficulties in relationships with peers, which is associated with substance consumption. The most severe course of the disease, worse treatment results and suicide risk are consequences of this relationship⁽⁵⁾.

Anxiety and depression act as a negative reinforcement for drug use, whereas impulsiveness and search for new sensations are related to positive reinforcement⁽⁶⁾. Among people with anxiety problems, family and social relationships, employability status, conflicts with the law and their psychiatric status itself can be considered risk factors for drug use⁽⁷⁾.

Regarding specific groups, other predictors were evidenced. Drug use initiation in adolescence impairs development, with the possibility of leading to cognitive impairment, which precedes mood-related symptoms⁽⁵⁾.

In adolescence, one of the factors that predict consumption of alcohol and other drugs is exposure to stress, in addition to substance use as a possible predictor for street situation⁽⁸⁾.

Among women, experiencing intimate partner violence situations is directly related to substance use in general and to future addiction diagnoses⁽⁹⁾. Women are more prone to being stigmatized due to substance use, impacting on greater withdrawal from social, occupational and leisure activities⁽⁶⁾.

A study conducted in France at a specialized Center for the treatment of people with substance use problems identified that quality of life among individuals who abuse substances is generally lower than in people with other chronic diseases or with serious psychiatric disorders. The factors related to quality of life assist in the treatment process, especially in decision-making referring to its initiation and continuation⁽¹⁰⁾.

Noticing the need to undergo treatment for substance abuse is a strong predictor for a person to access mental health services. However, only 5% of Latin individuals report perceiving this need and 83% state not having undergone any treatment in the last year⁽¹¹⁾. It is in this sense that it becomes necessary to know the predictors regarding severity of the problems associated with consumption for those users undergoing treatment, which appears to be a gap in the scientific literature, especially at the national level^(1,11).

In the specialized care context in Brazilian psychosocial assistance, the Centers for Psychosocial Care in Alcohol and Drugs (CAPS-ADs) are responsible for caring for people with mental disorders resulting from the use of alcohol and other drugs, in a territorialized and user-focused manner through the Singular Therapeutic Project (STP). CAPS-ADs work in articulation with other points of the intra- and inter-sectoral network, as part of the Psychosocial Care Network (Rede de Atenção Psicossocial, RAPS)⁽¹²⁾. In this scenario, it is possible to assess the predictors of greater problems experienced by the users undergoing treatment.

The Global Assessment of Individual Needs - Short Screener (GAIN-SS) is a brief self-report screening instrument prepared based on a standardized clinical interview. North American and Brazilian studies have shown that GAIN-SS performs well when compared to standardized clinical interviews, showing acceptable internal consistency to assess the needs related to mental health, alcohol, other drugs, crime and violence of the population over time^(13,14).

For presenting two main psychopathology domains (internalization and externalization problems), the instrument is able to evaluate predictive factors not only of alcohol and other drug consumption but also of psychoactive substance (PSA) disorders and problems related to crime and violence. Internalization problems include anxiety, depressive and post-traumatic stress disorders, whereas the externalizing domain includes substance use, antisocial personality, behavioral and attention-deficit/hyperactivity disorders⁽¹⁵⁾. This instrument has three objectives: screening in various clinical populations; estimating the need for referral in different health systems; and serving as a change measure in behavioral health over time⁽¹⁶⁾.

The outcomes of this analysis will provide guidelines supporting clinical decision-making about each user's needs, as well as a specific diagnosis and treatment. Thus, the current study aimed at analyzing the predictors of problems related to psychoactive substance consumption among CAPS-AD users. As a hypothesis, it is listed that sociodemographic variables, use pattern, drug of choice, severity of mental health problems (internalization and externalization) and those related to crime and violence experienced by the users in the last three months are associated with greater problems regarding PAS use and other general adversities

METHOD

This is a descriptive and cross-sectional study with a quantitative approach, where the (STROBE) *Strengthening the Reporting of Observational Studies in Epidemiology* checklist for observational studies was used to guide the research phases. The research was carried out with users of a CAPS-AD located in a municipality from inland São Paulo, Brazil, which has 142,000 inhabitants and only one CAPS-AD, with weekly operation and a multiprofessional team to meet the demands of the population. The service treats a mean of 200 users per month and the sample was comprised by 200 participants, all selected for convenience.

The inclusion criteria corresponded to individuals aged between 18 and 75 years old who were able to participate in an interview lasting approximately 10 minutes, which were verified with the service team members and with the individuals themselves. The exclusion criteria were users under an acute effect, in psychoactive substance withdrawal syndrome or in a crisis situation (acute symptoms), among which are cognitive impairment or decline and manic syndromes (from hypomania to mania), etc. Users who fit into those situations were

excluded from the study, as their symptoms might compromise quality of the information collected.

Data collection was conducted from January to April 2021 by means of phone interviews, with filling-out of an online form in the Google Forms format applied by the researcher. The research was initiated after reading the Free and Informed Consent Form (FICF) and after obtaining the participants' consent. The phone contacts were made available by the service itself, via the medical records.

The collection instrument consisted of sociodemographic data such as gender, age, marital status, schooling, work status, family income, ethnicity, family/marital status and vulnerability condition; and of clinical data such as diagnosis of a mental disorder, alcohol and other drug use (age of onset, substance and use pattern), as well as the GAIN-SS scale, used in its Brazilian version. For having easily accessible language, it can be self-administered or applied by the team on paper or with a computer, as part of a welcoming process into the service or of a primary care visit^(14,16).

This scale has 23 items divided into four domains: IDSr (Internal Disorders - 6 items), EDSr (External Disorders - 7 items), SDSr (Substance Dependence - 5 items) and CVScr (Crime and Violence - 5 items). Each one is preceded by a question with the following answer options according to a Likert scale: "In the last month" (4); "2-3 months ago" (3); "4-12 months ago" (2); "1 year or more ago" (1); and "Never" (0)⁽¹³⁾.

The total score of the scale is obtained by adding up the number of answers given by the participants to each period and classified as follows: last month, last 90 days, last year, and some time in life. For the score used in this analysis, the symptoms experienced by the individuals in the last 90 days were added up. The total score for possible symptoms is 23, where the closer it is to 23, the more indicative of people in more serious conditions⁽¹³⁾. It was decided to use the sum referring to the 90-day period, as it allows identifying current problems.

The needs are classified into the following levels: Low (0), will probably not need services; Moderate (one to two), with a possible diagnosis and probability of benefiting from a brief intervention; and High (three or more), with a high probability of diagnosis and need for a more detailed evaluation and intervention (directly or by reference). The higher the final score, the greater the demand for a detailed evaluation; in the practice, it is assumed that mental health care is required when the score is one or more in each of the four domains⁽¹³⁾.

For presenting the profile of the CAPS-AD users, the data were analyzed by means of descriptive statistics and, for the inferential analyses of predictors, multiple linear regression and ordinary least squares models were applied. This method is commonly used in the analysis of predictors in epidemiological studies^(17,18) and it is considered that there is an association between the variables when the p-values are less than or equal to 0.05. All the covariates were introduced simultaneously into the statistical model and we used robust standard errors and heteroscedasticity. The statistical analyses were performed in the Stata 15 software.

All the research participants signed the FICF. The research was approved by the Ethics Committee of the Nursing School at the University of São Paulo (*Escola de Enfermagem da Universidade de São Paulo, EEUSP*), following the determinations set forth in Resolution No. 466/2012 under opinion No. 600,747-0.

RESULTS

The sample consisted of 200 users and the mean age was 39.08 years old (SD: 12.02), with a median of 38 and varying from 19 to 72; 84% (168) of them were male; 85.5% (171) declared themselves white-skinned; 62% (124) were separated, single or widowed, and lived without a partner; and 43.5% (87) lived with family members. Regarding training and schooling, 63.1% (126) have at least a High School degree, 53% (106) are in the informal market and 53.5% (107) earn from 1 to 3 minimum wages per month. The majority (97.5% [195]) reported not living in a vulnerable situation.

In the clinical characterization, it was verified that 76.0% (152) stated not having any mental disorder diagnosis. In the aspect regarding psychoactive substance (PAS) use habits, the mean age at first use was 16.83 years old, with a median of 17 and 56.5% (113) reporting weekly use. 98.5% (197) indicated alcohol consumption. As for the drug of choice, 55% (110) reported preferring crack or cocaine. They underwent the evaluation

in a mean of 6.52 minutes (SD: 2.61), with a median 6 minutes.

Scale scores

In general, the users reported problems in all areas; however, those related to the use of alcohol and other drugs gained prominence, with a mean of 3.02 out of five problems in the last 90 days, very close to the externalization symptoms. Crime and violence problems had the lowest score, with a mean of 0.89. The descriptive measures of the GAIN-SS scores in the last 90 days are presented in Table 1.

Inferential analysis

The multiple analysis of the socioeconomic variables in relation to the SDcr domain of problems related to PAS use from the GAIN-SS scale is presented in Table 2. In the hypothesis test using the score of the last 90 days, a positive association was observed in the SDcr domain of problems related to PAS use from the GAIN-SS scale between the following variables: “internalization and externalization problems”, “problems related to crime and violence” and “Incomplete High School” when compared to no schooling, and “weekly and daily use pattern” when compared to occasional use.

In this regression, the R² value was 67.35%, which shows that this set of independent variables explains much of the dependent variable fluctuation, which is the severity of the symptoms that predict greater problems related to the PAS use.

Table 3 presents the multiple analysis of the socioeconomic variables in relation to the total GAIN-SS scale score considering the last 90 days. Regarding the hypothesis test for the GAIN-SS scale overall score, we found that gender (female), age (inversely proportional, younger people have more problems), people living on the streets and those who use substances daily or weekly (when compared to occasional use) have association with

Table 1 - Descriptive measures of the GAIN-SS scores in the last 90 days among users of a Psychosocial Care Center in Alcohol and other Drugs (n=200). Botucatu, SP, Brazil, 2021

GAIN-SS scale scores in the last 90 days	Internalization symptoms (from 0 to 6)	Externalization symptoms	Problems related to Psychoactive Substance use (from 0 to 5)	Problems related to Crime and Violence (from 0 to 5)
Mean	2.52	2.94	3.02	0.89
Median	2	3	4	0
Standard Deviation	1.78	2.17	2.10	1.14
Minimum	0	0	0	0
Maximum	6	7	5	4

scores of greater severity of total symptoms evaluated by the full scale.

In this regression, the R² value was 53%, which shows that this set of independent variables explains much of the dependent variable fluctuation, which is the individuals' total severity.

Table 2 - Multiple analysis of the socioeconomic variables in relation to the SDscr* domain of problems related to PAS use from the GAIN-SS scale (n=200). Botucatu, SP, Brazil, 2021

SDscr* 90 days	Coef.†	P>t	Confidence Interval	
			Lower Limit	Upper Limit
IDscr [§] 90 days	0.336	≤0.001‡	0.18	0.48
EDscr 90 days	0.217	0.002‡	0.07	0.35
CVscr [¶] 90 days	0.320	0.002‡	0.11	0.52
Gender	0.020	0.940	-0.50	0.54
Age	0.005	0.628	-0.01	0.02
With a partner	0.289	0.158	-0.11	0.69
Illiterate	0.767	0.190	-0.38	191.79
Incomplete 1 st level	0.733	0.032*	0.06	1,403.44
Complete 2 nd level	0.768	0.019*	0.12	1,407.69
Incomplete 2 nd level	0.640	0.110	-0.14	1,428.89
Complete 3 rd level	0.034	0.943	-0.90	0.97
<1 minimum wage	-0.237	0.316	-0.70	0.22
1-3 minimum wages	-0.137	0.726	-0.91	0.63
White	0.116	0.647	-0.38	0.61
Street situation	0.334	0.393	-0.43	1,104.82
Age at first use	0.014	0.682	-0.05	0.08
Alcohol as drug of choice	-0.355	0.447	-1,274.744	0.56
Crack and cocaine as drug of choice	0.0336	0.477	-0.591	1,267.89
Weekly use pattern	1,061.441	0.001‡	0.47	1,652.60
Occasional use pattern	1,360.985	0.001‡	0.58	2,140.71
Other problems	0.162	0.772	-0.94	1,268.93

*SDscr = Substance Dependence, †Coef. = Coefficient, ‡p-value≤0.05, §IDscr = Internal Disorders, ||EDscr = External Disorders, ¶CVscr = Crime and Violence.

Table 3 - Multiple analysis of the socioeconomic variables in relation to the total GAIN-SS scale score (90 days) (n=200). Botucatu, SP, Brazil, 2021

TDSscr*90 days	Coefficient	p>t	95% CI [†] Lower Limit	95% CI [†] Upper Limit
Gender	1.23	0.03‡	0.14	2.31
Age	-0.05	0.03‡	-0.10	0.00
With a partner	-0.18	0.71	-1.16	0.79
Illiterate	-0.24	0.84	-2.59	2.11
Incomplete 1 st level	-0.01	1.00	-1.65	1.64
Complete 2 nd level	-0.45	0.62	-2.22	1.32
Incomplete 2 nd level	0.31	0.79	-2.04	2.66
Complete 3 rd level	0.64	0.74	-3.17	4.44
<1 minimum wage	-0.41	0.50	-1.62	0.80
1-3 minimum wages	-1.59	0.15	-3.74	0.57
White	-0.05	0.94	-1.46	1.36
Lives on the streets	2.58	0.01*	0.73	4.43
Age at first use	-0.07	0.33	-0.21	0.07
Alcohol as drug of choice	-0.72	0.71	-4.54	3.10
Crack and cocaine as drug of choice	1.10	0.58	-2.80	5.00
Weekly use pattern	3.79	≤0.001*	2.64	4.94
Occasional use pattern	6.22	≤0.001*	4.58	7.85
Other problems	-1.33	0.37	-4.24	1.57

*TDSscr = Total Disorder Screener, †95% CI, ‡p-value≤0.05.

DISCUSSION

There are few previous studies applying GAIN-SS in users of CAPS-ADs, community services for alcohol and other drugs with characteristics of the sociodemographic and clinical profile, in addition to dimensions of internal and external disorders, symptoms of chemical addiction and items related to crime and violence, which limits the scope for discussing the results. However, it becomes an opportunity for the debate of this research field regarding the analysis of GAIN-SS at the CAPS-AD in a municipality from inland *São Paulo*.

In the sociodemographic variables, this study had higher prevalence in users who are male (84%), white-skinned (85.5%) and have no partner (separated: 26.5%; single: 30.5%; widowed: 5%). Other research studies corroborate the finding¹⁹⁻²³. The fact that the highest

prevalence corresponds to having no partner can be related to the social losses caused by the abuse of psychoactive substances, leading to family breakdown. One of the aggravating factors is incessant search, when the user gives priority to the psychoactive drug, culminating in social isolation. Lack of social ties can be an opportunity for using drugs as a way to escape loneliness⁽²²⁾.

In the “schooling” item, most of our participants had at least High School level (63%), whereas other studies were conducted with populations with lower schooling⁽²⁰⁻²³⁾. In the “labor situation” item, 53% are in the informal market and, as for unemployment (17.5%), the rate is below other research studies^(20,21,23).

In relation to the age at first use of psychoactive substances, the mean was 16.7 years old, the same as in another study¹⁹, but above the national mean (15 years old)³. In the “use habit”, 56.3% reported weekly PAS use, with alcohol (98.5%) and crack or cocaine (55%) as drugs of choice, and 56.5% (113) reported weekly PAS use with results close to another study⁽²⁰⁾. The literature points out that use onset of licit and illicit drugs occurs in adolescence, but that the search for help due to misuse only takes place in adult life, as this is the moment when people present intense harms to their physical and mental health due to the consumption of those substances for an extended period of time^(20,23).

A study carried out with 837 individuals undergoing outpatient treatment in Mental Health Centers and Drug Addiction Centers managed by the Autonomous Community of Madrid, Spain, had the objective of comparing the lifetime prevalence of substance use disorder in patients who were and were not diagnosed with Personality Disorder (PD). It was concluded that patients with Personality Disorder tend towards alcohol use and that Personality Disorder Group B, specifically Antisocial PD and Paranoid PD, are significantly associated with substance use⁽²⁴⁾.

For the hypothesis test that it is possible to identify predictors of major problems related to PAS use in the last 3 months, we found a positive association with the following variables: “internalization and externalization problems”, “problems related to crime and violence”, “Incomplete High School” when compared to no schooling, and “weekly and daily use pattern” when compared to occasional use.

Internalization and externalization factors are extensively studied in children and adolescents⁽¹⁵⁾. Externalization disorders robustly predict the future onset of alcohol use problems, reinforcing that internalization disorders do not constitute a high risk for the future development of problems with alcohol and other drugs⁽²⁵⁾.

To test the hypotheses that sociodemographic variables, use pattern and drug of choice are associated with greater total severity (total score on the TDSr scale), we found that gender (female), age (inversely proportional, younger individuals have more problems), people living on the streets and those who use substances daily or weekly (when compared to those who use them occasionally) have greater severity of their total symptoms evaluated by the full scale.

The literature points out that at least twice as many men as women suffer from drug use disorders. With the exception of tranquilizers, one study indicated that alcohol and cocaine, marijuana and opioid use disorders are more prevalent in men⁽²⁴⁾. However, once women started using substances, in particular alcohol, cannabis, opioids and cocaine, they tended to increase their use rate faster than men. As a result, women can progress to drug use disorders in an accelerated manner, not least because their access to treatments for drug use disorders is also more limited than among men^(1,24).

The limitations of this study are related to data collection, as it was performed at a single service in a city from inland *São Paulo*, thus precluding generalizations. Future studies need to include other services and the use of this instrument in other cities to verify its performance.

CONCLUSION

With this study, it was possible to analyze that the participants report problems in all areas. The predictors for the severity of the problems related to alcohol and other drug use were mental health comorbidities, crime and violence problems and use pattern. Female gender, younger age, low schooling and street situation were significant among the sociodemographic variables.

Based on the data obtained, there is an evident need for special attention to the care of people who use alcohol and other drugs in the teaching curriculum of health undergraduate courses and in the training for the professionals who are seeking more humane and quality care. It is indicated that an interdisciplinary, interprofessional and intersectoral approach is required in the care to be provided to users of alcohol and other drugs undergoing treatment. Social problems and difficult access still require investments at the national level.

In addition to that, the issues involving the penal system can permeate the topic in order to break with the health care process, and it is important to broaden the discussion that referral of these users with a PAS use problem should be up to the health system, not to the

Judiciary Power. The STP resource can be a powerful expanded clinical practice strategy in this context.

Thus, research studies are required to know the mechanisms responsible for the associations between mental disorders, substance abuse and violence, as a cross-sectional study is not enough to determine causality.

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