



Mental disorder and suicide risk in psychoactive substance users: an integrative review


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Objective: to analyze scientific evidence regarding the presence of mental disorders and risk for suicide in psychoactive substance users. Method: integrative literature review conducted on LILACS, MEDLINE and SCOPUS, using the descriptors: substance-related disorders, suicide and mental disorders. Full articles available in Portuguese, English or Spanish were selected without a time frame. However, duplicates as well as articles that did not answer the guiding question directly were excluded, thus totaling 17 articles for analysis. Results: psychoactive substance users presented reduced quality of life and more severely impaired mental health, which increases the probability of associated psychiatric comorbidities, such as depression, schizophrenia, bipolar disorder and anxiety, especially when multiple substances are used. This association increases the chances of individuals' committing suicide up to 5.7-fold. Conclusion: there is a direct relation between the three investigated facts, in which psychoactive substance use increases the probability of mental disorders and suicide risk, making it necessary to design efficient health strategies for the early identification of such problems and thus develop interventions to minimize them.

Descriptors: Mental Health; Substance-Related Disorders; Mental Disorders; Suicide.

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Transtorno mental e risco de suicídio em usuários de substâncias psicoativas: uma revisão integrativa

Objetivo: analisar as evidências científicas acerca da presença de transtornos mentais e o risco de suicídio em usuários de substâncias psicoativas. Método: revisão integrativa da literatura, realizada na LILACS, MEDLINE e SCOPUS, mediante os descritores: transtornos relacionados ao uso de substâncias, suicídio e transtornos mentais. Selecionaram-se os artigos completos disponíveis nos idiomas português, inglês ou espanhol, sem recorte temporal, todavia, foram excluídos os duplicados e que não responderam diretamente à pergunta norteadora, totalizando 17 artigos para análise. Resultados: os usuários de substâncias psicoativas apresentam qualidade de vida reduzida e maior comprometimento na saúde mental, que aumentam a probabilidade para comorbidades psiquiátricas associadas, como a depressão, esquizofrenia, transtorno bipolar e ansiedade, principalmente quando há o uso de múltiplas substâncias. Essa associação eleva as chances de os indivíduos cometerem suicídio em até 5,7 vezes. Conclusão: observa-se a relação direta entre os três fatores investigados, em que o uso de substâncias psicoativas aumenta a probabilidade de transtornos mentais e o risco de suicídio, tornando-se necessária a elaboração de estratégias eficazes em saúde para a identificação precoce dessas problemáticas e, assim, desenvolver intervenções a fim de minimizá-las.

Descritores: Saúde Mental; Transtornos Relacionados ao Uso de Substâncias; Transtornos Mentais; Suicídio.

Trastorno mental y riesgo de suicidio en usuarios de sustancias psicoactivas: una revisión integrativa

Objetivo: analizar las evidencias científicas sobre la presencia de trastornos mentales y el riesgo de suicidio en usuarios de sustancias psicoactivas. Método: revisión integrativa de la literatura, realizada en LILACS, MEDLINE y SCOPUS, mediante los descriptores: trastornos relacionados al uso de sustancias, suicidio y trastornos mentales. Se seleccionaron los artículos completos disponibles en portugués, inglés o español, sin recorte temporal, fueron excluidos los duplicados y los que no respondieron directamente a la pregunta orientadora, totalizando 17 artículos para análisis. Resultados: los usuarios de sustancias psicoactivas presentan calidad de vida reducida y mayores problemas de salud mental lo que aumenta la probabilidad para comorbilidades psiquiátricas asociadas, como depresión, esquizofrenia, trastorno bipolar y ansiedad, principalmente cuando se usan múltiples sustancias. Esta asociación eleva las posibilidades de que los individuos cometan suicidio en hasta 5,7 veces. Conclusión: se observa una relación directa entre los tres factores investigados, en que el uso de sustancias psicoactivas aumenta la probabilidad de trastornos mentales y el riesgo de suicidio, siendo necesario la elaboración de estrategias eficaces en salud para la identificación precoz de estas problemáticas y así, desarrollar intervenciones para minimizarlas.

Descriptorios: Salud Mental; Trastornos Relacionados con Sustancias; Trastornos Mentales; Suicidio.

Introduction

Psychoactive substance (PAS) use is a serious public health problem revealed by alarming figures, with approximately 10% of people in urban centers consuming such substances abusively, that is, 16 to 39 million dependent persons and 183 thousand deaths related to this disease worldwide in 2012⁽¹⁾.

It is estimated that about one out of every five individuals who use illicit substances has a diagnosis of dependence, in which users incorporate PASs into their daily lives as their main object. Such abuse leads to numerous personal, family and social consequences to the population, as it causes changes in perception, mood and conscience; family breakdown; physical, material and moral losses; prejudice; cognitive limitations to learning; school dropout; unemployment and health impairment⁽²⁻³⁾.

In this regard, studies point out the consequences of PASs, such as marginalization, greater vulnerability, disruption of social relations, lack of interest in life, more susceptibility to sexually transmitted infections and the association between manifestations of mental disorders and behavioral changes resulting from PAS use⁽⁴⁾.

The presence of these mental disorders in PAS users increases risk for suicidal behavior⁽⁵⁾. Suicide is also considered a public health problem, with a rate of 11.6 deaths per every 100 thousand inhabitants and represented by approximately 804 thousand deaths in 2012⁽⁶⁾. In the meantime, national data show that out of every 10 attempts at self-extermination or suicide, two or more are related to alcohol use⁽⁷⁾.

Thus, given the magnitude related to the problematic use of PASs, the presence of mental disorders and suicide, which are considered public health problems, it is necessary to investigate the association between these three situations in order to improve health care for individuals involved with PASs, especially in the context of mental health, as well as to know the factors involved in such context and delineate groups at risk for suicide with the purpose to prevent anticipated life termination.

Therefore, the objective is to analyze scientific evidence concerning the presence of mental disorders and risk for suicide in PAS users.

Method

An integrative literature review was conducted, which went through five phases, namely: theme

identification and designing of the guiding question; literature search; evaluation of data present in the studies; data analysis and synthesis; and finally, review presentation⁽⁸⁾.

To that end, the guiding question in the study was designed from the PICO strategy. PICO is an acronym formed by P: population/patients; I: intervention; C: comparison/control; and O: outcome, as recommended by the Jonna Briggs Institute⁽⁹⁾. Thus, the following question was outlined: what is the available evidence concerning the presence of mental disorders and risk for suicide in psychoactive substance users?

The search for studies was conducted in December, 2018, on the following databases: *Literatura Latino-Americana e do Caribe em Ciências da Saúde* (LILACS), Medical Literature Analysis and Retrieval System Online (MEDLINE) and SciVerse Scopus (SCOPUS), which were respectively accessed by the Virtual Health Library (BVS), U.S. National Library of Medicine (PUBMED) and the journal portal of the Coordination for the Improvement of Higher Education Personnel (CAPES) from the Federate Academic Community (CAFe), to which the researchers are affiliated.

In this perspective, the descriptors in health sciences (DECS) were used for the database in Portuguese and, for the English language, the search was conducted on the Medical Subject Headings (MeSH). Furthermore, the Boolean Operators AND and "" were used to associate the descriptors, as follows: "substance-related disorders" AND suicide AND "mental disorders", as well as "substance-related disorders" AND suicide AND "mental disorders".

The recommendations from the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)⁽¹⁰⁾ were used for article selection by adapting to integrative reviews, with the following inclusion criteria: full articles available for free in Portuguese, English or Spanish without a time frame. Duplicate articles as well as those that did not answer the guiding question directly were excluded. Hence, 17 articles were included in the sample, as shown in Figure 1.

The articles were organized and the data collected using an instrument designed by the author based on the literature⁽¹¹⁾. The following variables were used: author's name, year of publication, title, language, purpose and main results. Subsequently, the information was analyzed descriptively, which allowed for discussion based on scientific evidence.

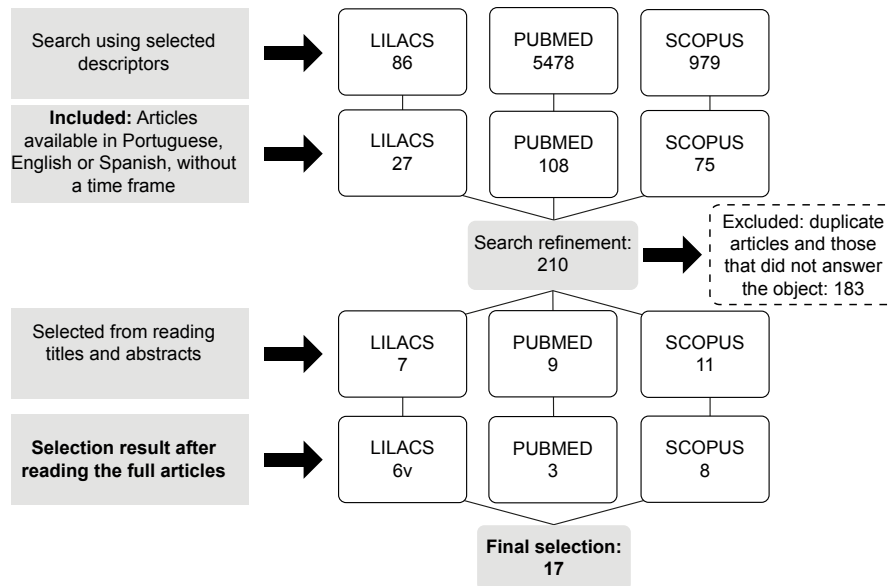


Figure 1- Article selection process, Sobral, Ceará, Brasil, 2018

Results

Figure 2 was designed to systematize and organize the information constituted in the articles used.

When analyzing the articles, the largest number of publications was observed in 2017 ($n=3$; 17.6%), which, in total, encompassed the period from 2000 to 2017, and even though a time frame was not used as an inclusion criterion, publications were mostly observed in the last ten years, which shows an increased number of studies related to the theme due to its relevance to the scientific community.

In addition, 88.23% ($n=15$) of the articles used a quantitative approach to the study methodology, and most of them used cross-sectional and descriptive studies, focusing on a sample consisting of family members of users who were deprived of freedom and had committed suicide. Some compared PAS users and non-users.

Regarding language, there was a predominance of studies in English, with 64.8% ($n=11$). Most publications (76.5%) referred to the international scenario with a limited number of articles alluding to the theme at the national level. The studies addressing the social representation of suicide for PAS users⁽²⁸⁾, the evaluation of executive functions and emotional and behavioral expression related to the presence of suicidal ideation⁽²¹⁾ and the general profile of PAS users treated at a psychiatric hospital⁽¹⁷⁾ were noteworthy. One study showed, as its object, the presence of psychiatric comorbidities in PAS users, mentioning the risk for suicide⁽¹⁹⁾.

In addition, it also noteworthy that some studies addressed only the context of mental disorder and PAS use, and others the risk for suicide with PAS alone. However, these were included because they presented important information for understanding the theme and the answer to the guiding question.

Author (Year)	Title	Language	Objective	Main results
Borges G, Walters EE, Kessler RC (2000) ⁽¹²⁾	Associations of Substance Use, Abuse, and Dependence with Subsequent Suicidal Behavior	English	To disaggregate associations of substance use disorders with suicide attempts in order to evaluate a number of hypotheses about the processes leading to such associations.	People who abuse alcohol and other drugs are highly prevalent in suicide attempts, with higher risk than in recreational users and non-users. And the higher the number of PASs used, the greater the chances of committing suicide.
Breslau N, Schultz LR, Johnson EO, Peterson EL, Davis GC (2005) ⁽¹³⁾	Smoking and the Risk of Suicidal Behavior	English	To evaluate the association between smoking and suicidal thoughts or attempt in a longitudinal study.	A history of PAS use disorders is associated with high rates of suicidal behavior. There is increased risk for thoughts or suicide attempts associated with current daily smoking; however, a history of previous smoking does not directly interfere.
Séguin M, Lesage A, Chawky N, Guy A, Daigle F, Girard G, et al (2006) ⁽¹⁴⁾	Suicide Cases in New Brunswick From April 2002 to May 2003: The Importance of Better Recognizing Substance and Mood Disorder Comorbidity	English	To investigate all suicide cases occurring in New Brunswick within the 14 months from April 1, 2002 to May 31, 2003 in order to determine 6 months and the prevalence of psychopathology in the deceased person.	Mood disorders (66%) and substance abuse (59%) were the most common in suicide cases, in which 54% of victims had PAS dependence and another disorder, 55% mood disorder alone, and 42% mood disorder and PAS dependence.

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Author (Year)	Title	Language	Objective	Main results
Ocampo R, Bojórquez I, Cortés M. (2009) ⁽¹⁵⁾	Consumo de sustancias y suicidios em México: resultados del Sistema de Vigilancia Epidemiológica de las Adicciones, 1994-2006	Spanish	To determine the relationship between substance use and number of substances and suicide presentation.	The main PAS associated with suicide cases was alcohol (72.9%), followed by stimulants (9.6%) and sedatives (6.8%). In addition, as the number of PASs increases, the possibility of suicide also increases.
Lukasiewicz M, Blecha L, Falissard B, Neveu X, Benyamina A, Reynaud M, et al. (2009) ⁽¹⁶⁾	Dual diagnosis: prevalence, risk factors, and relationship with suicide risk in a nationwide sample of French prisoners	English	To describe prisoners with a dual diagnosis (prevalence and characteristics); to compare prisoners with dual diagnosis to three other groups of prisoners and evaluate the impact of dual diagnosis on the risk for suicide in prison.	There is a greater association of mood disorders, anxiety and psychotic disorders with the disorder related o PAS use. And this association becomes stronger for the risk of suicide. <i>Cannabis</i> was the most often used drug.
Silva LHP, Borba LO, Paes MR, Guimarães AN, Mantovani MF, Maftum MA. (2010) ⁽¹⁷⁾	Perfil dos dependentes químicos atendidos em uma unidade de reabilitação de um hospital psiquiátrico	Portuguese	To characterize the profile of drug-dependent individuals treated at the rehabilitation unit of a Psychiatric hospital.	37% of the sample had mental disorders, among which depression and the bipolar affective disorder are noteworthy. 30% of those who had dependence-related mental disorders had attempted suicide at least once in their lives, especially those with depression.
Zhang Y, Conner KR, Phillips MR (2012) ⁽¹⁸⁾	Case-Control Study in China of Risk Factors for Suicide in Men With Alcohol Use Disorders	English	To assess risk factors for suicide among men with alcohol use disorder.	In PAS users, there were frequent cases of major depression and previous suicide attempts. Thus, that became the most common group in suicide cases. Three factors were considered as risk for suicide among users: previous suicide attempts, diagnosis of major depression, and acute negative life events.
Hess ARB, Almeida RMM, Moraes AL. (2012) ⁽¹⁹⁾	Comorbidades psiquiátricas em dependentes químicos em abstinência em ambiente protegido	Portuguese	To evaluate the frequency of psychiatric comorbidities using the Mini International Neuropsychiatric Interview in different groups of abstinent drug-dependent individuals in a protected environment.	Groups with users of multiple PASs showed higher occurrence of psychopathology, especially hypomanic episodes and anxiety disorder, with high risk for suicide.
Benaiges I, Prat G, Adan A. (2012) ⁽²⁰⁾	Health-related quality of life in patients with dual diagnosis: clinical correlates	English	To evaluate health-related quality of life in one group of patients with dual diagnosis compared with two other groups and determine which clinical factors are related to quality of life.	The main associated comorbidities were schizophrenia, depression and bipolar disorder. The group with mental disorder and PAS use showed more suicide attempts and lower quality of life, especially in the domains of physical and social functioning, emotional role, mental health, general health and vitality, as well as in the health transition one year ago.
Almeida RMM, Flores ACS, Scheffer, M (2013) ⁽²¹⁾	Ideação Suicida, Resolução de Problemas, Expressão de Raiva e Impulsividade em Dependentes de Substâncias Psicoativas	Portuguese	To compare PAS-dependent men, with non-dependent individuals as regards executive functions and emotional and behavioral expression and relate them to the presence of suicidal ideation.	24% of PAS users showed suicidal ideation, while none in the control group (non-users) showed suicidal behavior. PAS users showed behavioral and emotional changes, increased impulsivity and marked expression of anger.
Vásquez CA, Buitrago SCC, Castrillón JJC, Ramos LC, Valencia KJC, Guevara JLM, et al (2013) ⁽²²⁾	Riesgo suicida y factores asociados en instituciones de rehabilitación para adictos a las drogas en la ciudad de Manizales (Colombia), 2012	Spanish	To identify risk factors for suicide according to the Plutchik scale as well as their associated factors in a population of patients hospitalized for rehabilitation from substance use in the city of Manizales (Colombia).	57% of users showed risk for suicide; 47% showed previous suicide attempts, of whom three had attempted it 10 times; 25.8% had mental disorder, especially bipolar disorder (31.8%), anxiety (30.1%), depression (32.2%), personality disorder (18.2) and schizophrenia (9.1%).
Chapman SLC, Wu LT (2014) ⁽²³⁾	Suicide and substance use among female veterans: a need for research	English	To evaluate associations of substance use with suicide in female veterans; to identify research gaps, and report future studies.	Depression or substance abuse increase the chance of suicidal ideation 5.7-fold. Among the risk factors, psychiatric symptoms and a longer period of alcohol or cocaine use are noteworthy. For men, the presence of bipolar disorder is a major risk factor for suicide
Ferrari AJ, Norman RE, Freedman G, Baxter AJ, Pirkis JE, Harris MG, et al. (2014) ⁽²⁴⁾	The Burden Attributable to Mental and Substance Use Disorders as Risk Factors for Suicide: Findings from the Global Burden of Disease Study 2010	English	To calculate the suicide burden attributable to mental and substance-use disorders and evaluate variations by region, country, age, year, and disorder.	62.1% of suicides are related to mental disorders and PAS use, which, in association, increase risk for suicide considerably. The most frequently observed disorders were depression and schizophrenia.
Darvishi N, Farhadi M, Haghtalab T, Poorolajal J. (2015) ⁽²⁵⁾	Alcohol-Related Risk of Suicidal Ideation, Suicide Attempt, and Completed Suicide: A Meta-Analysis	English	To estimate the association between alcohol-use disorder and suicidal ideation, suicide attempt and completed suicide separately.	Disorders related to alcohol use are significantly associated with increased risk for suicidal ideation, as alcohol consumption has negative effects on mental health, causing psychiatric disorders and increasing the risk for suicide.

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Author (Year)	Title	Language	Objective	Main results
Gates ML, Turney A, Ferguson E, Walker V, Staples-Horne M (2017) ⁽²⁶⁾	Associations among substance use, mental health disorders, and self-harm in a prison population: examining group risk for suicide attempt	English	To evaluate risk factors related to suicide attempts in an offending population.	Depression was the most commonly diagnosed mental disorder, followed by anxiety, schizophrenia and bipolar disorder. Substance users were more likely to attempt suicide, especially when concomitant with depression.
Adan A, Marquez-Arrico JE, Gilchrist G. (2017) ⁽²⁷⁾	Comparison of health-related quality of life among men with different co-existing severe mental disorders in treatment for substance use	English	To compare outcomes for health-related quality of life in patients with substance-use disorder and severe mental illness with patterns for the Spanish population	The main associations were with schizophrenia, major depressive disorder and coexisting bipolar disorder, in which all groups had poorer health-related quality of life, especially social functioning, mental health and emotional roles.
Cantão L, Botti NCL. (2017) ⁽²⁸⁾	Representação social do suicídio para pessoas com problemas relacionados ao uso de drogas	Portuguese	To learn about the meanings of suicidal behavior to people with problems related to drug use.	Attempting suicide in people with substance-use problems represents despair due to suffering, personal disapproval and lack of family support. In this case, risk for suicide is independent of the course of use and may occur during intoxication, abstinence or relapse.

Figure 2- Systematization regarding authors and year of publication, title, language, objective and main results of the selected articles, Sobral, Ceará, Brazil, 2018

Discussion

A dual diagnosis refers to the substance-use disorder associated with psychiatric comorbidities. Both events have a reciprocal causality, since the PAS use can lead to mental disorders, or the opposite. Such diagnosis is considered a risk factor for suicide.

PAS users showed lower scores in most domains related to quality of life, such as physical and social functioning, emotional role, mental health and vitality, as a limitation is observed in their social life and occupation as well as a stronger feeling of fatigue and exhaustion when compared with other groups⁽²⁰⁾. A study⁽²⁷⁾ conducted in Spain on male PAS users points out that groups with a dual diagnosis showed worse health-related quality of life, especially when associated with schizophrenia and major depression.

PAS use triggers impairment and the disruption of social and family relationships, since obtaining drug becomes the individual's life goal, which leads to difficulties in maintaining relationships and activities previously performed, showing problems that, in association with the physiological changes resulting from PAS, negatively affect these individuals' social functioning and mental health⁽²⁾.

Thus, the mental health of PAS users is severely affected, as self-esteem and interests decrease, social and family ties are disrupted, self-care worsens, self-respect is lost with feelings of loneliness, and involvement in illegal activities occur to acquire the substance, which may cause other associated mental disorders⁽²⁹⁾.

Hence, studies report that PAS consumption increases the likelihood for psychiatric disorders in general⁽³⁰⁾, especially when referring to the use of multiple substances, which promotes a higher occurrence

of psychopathologies compared to individuals who use only one drug, and this consequently causes higher risk for suicide⁽¹⁹⁾.

In addition, the time of use and amount of PAS are proportionally related to suicide, since when time of use increases, there is a greater chance of suicidal ideation⁽²¹⁾. However, it is observed that high risk is related to the current use of the substances and not to past⁽¹²⁻¹³⁾ because the more PAS used, the greater the possibility of committing suicide^(12,15,19), as the use of one substance alone can increase the chance of suicide attempts 2.6-fold, whereas in cases of multiple substances, this figure increases to 27.4-fold⁽¹²⁾.

From this perspective, authors⁽²¹⁾ point out that users of multiple PASs are more likely to display impulsive behaviors, anger traits, less control of feelings, quick and unstable thoughts, a tendency to impetuous actions and a lack of planning and orientation for the future, since even without suicidal ideation or planning, they may attempt to commit such an act due to impulsive behaviors. These findings corroborate another study which reports that unplanned suicide attempts are often related to PAS users⁽¹²⁾.

In this regard, a case-control study shows that PAS abuse doubles the chances of attempting suicide, while the presence of a psychiatric comorbidity increases that risk tenfold, thus constituting important conditions that increase self-inflicted violence, especially when associated, which happens frequently, since mental disorder can be triggered by PAS abuse⁽³¹⁾.

Among the most common mental disorders shown by PAS users are depression, schizophrenia, bipolar disorder and anxiety, which are reported in most studies^(16,19,22-23). In this regard, authors⁽²²⁾ confirm the

presence of mental disorders in 25.8% of substance users, especially mood disorders⁽³⁰⁾.

Marijuana is seen as a risk factor for the early development of disorders, considering that the use of this PAS sometime in life carries a greater chance of developing common mental disorder, specifically social phobia, post-traumatic stress disorder, anxiety or mood disorders, in which an individual is 1.62-fold more likely to show depression⁽³²⁾.

From this viewpoint, a study reports that PAS use is associated with the presence of depression symptoms, as approximately 65.8% of cannabis and cocaine users are at risk for depression in Brazil⁽⁷⁾, which shows the impairment of these individuals' mental health⁽³³⁾.

Other studies^(13,26) report depression as the mental disorder most often associated with PAS use, followed by anxiety, schizophrenia, and bipolar disorder, respectively, given that the co-occurrence of depression with PAS use increases the likelihood of individuals' presenting self-destructive behaviors 5.7-fold^(23-24,26). From this perspective, a study shows the presence of PAS-related disorder in 59% of suicide cases, and a dual diagnosis in 42%, with emphasis on depression, personality disorder, anxiety and bipolar disorder⁽¹⁴⁾.

Moreover, depression is a frequent precursor of PAS abuse, and as a result, this pattern of consumption aggravates the depressive disorder. In addition, people with severe mental disorders are more susceptible to substance use and rapidly evolving to dependence, especially on marijuana and alcohol⁽²⁹⁾. This association was present mostly in a group of people who committed suicide in China. In their analyses, previous suicide attempt, a depression diagnosis, PAS use and negative life events were considered as risk factors for that action⁽¹⁸⁾.

Thus, the association between mental disorder and substance use is considered to be high risk for suicide, a fact confirmed by the literature, which shows that 30% of individuals with this dual diagnosis have attempted suicide at least once in their lives. The predominance of depression related to the mental disorder is also reinforced⁽¹⁶⁻¹⁷⁾.

These results may refer to the fact that individuals with a diagnosis of dual or multiple disorders present greater problems related to mental health, difficulties and resistance to treatment and medication, longer hospitalization due to complications, lower quality of life and impairment of psychosocial aspects, thus fully affecting the individual in such a way that can result in self-destructive behavior⁽³⁾.

It is also noteworthy that there was higher risk at the time of intoxication, when the main substance detected was alcohol (72.9%), in a research conducted in Mexico⁽¹⁵⁾. However, it is emphasized that suicidal behavior can be shown at any time during the course of use, that is, during intoxication, abstinence or recurrence⁽²⁸⁾.

Some authors discuss explanations of which the disinhibition caused by PAS, alteration of critical judgment and impulsive behavior during intoxication are noteworthy, since organic functions, thought and the individual's state of consciousness change, in addition to reduced problem-solving capacity, especially when more than one substance are consumed, as these factors are potentialized^(15,34).

In this regard, a study sought to analyze the meaning of suicidal behavior for people with problems related to PAS use by evaluating the representation of a moment considered as the individuals' desperate condition, which results from their own suffering, isolation and personal disapproval, as well as the absence of family support and lack of faith or disbelief in God⁽²⁸⁾.

In this respect, PAS is considered to be the main motivation for suicidal behavior in male CAPS users who have impaired family relationships due to dependence, which causes feelings of failure and worthlessness. In addition, these users view themselves as the cause of family disappointment, which is why they seek self-extermination in order to cease family discomfort⁽³⁵⁾.

In this scenario, it is observed that some factors act as risk for suicide, namely: abuse of multiple substances associated with the presence of psychiatric comorbidities and impaired social relationships. At the same time, protective aspects are perceived, such as the practice of a religion to strengthen faith, strengthened affective relationships, and occupation and distraction activities for these users⁽²⁸⁾.

Therefore, it is necessary to strengthen actions aiming at suicide prevention strategies in this group in order to enhance protective factors against such behavior. However, a study points out the limitation of health professionals to carry out extensive suicide prevention actions, especially with regard to Primary Health Care, where these strategies are not put into practice⁽³⁶⁾. This requires more focused attention by managers and health professionals, especially when dealing with PAS users, since the coexistent relationship between PAS use, the presence of psychiatric comorbidities and risk for suicide is increasingly clear.

Conclusion

Therefore, there is a direct relationship between the three investigated factors, in which increased PAS use negatively interferes with the individual's mental health and increases the probability of mental disorder development, and this association or a dual diagnosis considerably increases the risk for suicide. In addition, most studies consolidate depression as the mental disorder most often associated with PAS use, but it is not investigated as a strategy to deal with psychic suffering whether such relationship occurs prior to or after PAS, since PAS use may also be consecutive to the mental disorder.

This study has contributed to the understanding of these problems, especially regarding the relationship between the three conditions. It has also discussed the need for actions to prevent PAS abuse, and, consequently, minimize rates of mental disorders and the risk for suicide resulting from these comorbidities. Moreover, this knowledge is essential for health care provision to PAS users so as to sensitize professionals about the importance of actions aiming to identify these problems, as well as develop effective care strategies to minimize the risk for suicide in this population.

Also, the gaps in the subject are reiterated, as most articles are related to the international context, especially with samples including individuals who attempted suicide. However, in the Brazilian scenario, this production is limited and requires further research that can address this relationship as an object of study, referring directly to PAS users, so as to enable a situational diagnosis and thus provide a basis for care provision to this population.

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Study design and planning: Roberta Magda Martins Moreira, Eliany Nazaré Oliveira. Data collection: Roberta Magda Martins Moreira. Data analysis and interpretation: Roberta Magda Martins Moreira, Roberlandia Evangelista Lopes, Marcos Venícios de Oliveira Lopes, Lycélia da Silva Oliveira. Manuscript writing: Roberta Magda Martins Moreira, Tamires Alexandre Félix, Lycélia da Silva Oliveira. Manuscript critical review: Eliany Nazaré Oliveira, Roberlandia Evangelista Lopes, Marcos Venícios de Oliveira Lopes, Tamires Alexandre Félix.

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