Mental Disorders as a Risk Factor for Suicide and Suicidal Ideation

ABSTRACT
Objective: This work aims to study mental disorders as risk factors for suicide and suicidal ideation, in order to obtain information that can serve as tools for preventive work and make the treatments of these patients more effective. Method: The method chosen for the study is the literature review of the national literature, carried out through the SciELO, Lilacs and MedLine databases, and articles were selected with boolean operators: suicide, suicide attempts, suicidal ideation, mental disorders and psychopathology, totaling 15 articles for analysis. Results: As a result, from the analysis of collected data, subjects diagnosed with mental disorders have greater impairments in mental health, increasing the probability of risk of attempts, ideations and suicide. The main associated comorbidities identified were: depression, anxiety, mood disorders due to psychoactive substance use. Conclusion: It was concluded that mental disorders increase the likelihood of suicide attempts and ideations.

DESCRIPTORS: Suicide, risk factors, mental disorders.

RESUMEN
Objetivo: Este trabajo tiene por objetivo estudiar los trastornos mentales como factores de riesgo para el suicidio y la ideación suicida, con el fin de obtener información que pueda servir como herramientas para el trabajo preventivo y hacer que los tratamientos de estos pacientes sean más eficaces. Método: El método elegido para el estudio es la revisión literaria de la literatura nacional, realizada a través de las bases de datos SciELO, Lilacs y MedLine, y se seleccionaron artículos con operadores booleanos: suicidio, intentos de suicidio, ideación suicida, trastornos mentales y psicopatología, totalizando 15 artículos para el análisis. Resultados: Como resultado, a partir del análisis de los datos recompilados, las personas diagnosticadas con trastornos mentales tienen mayores discapacidades en la salud mental, lo que aumenta la probabilidad de riesgo de intentos, ideaciones y suicidio. Las principales comorbilidades asociadas identificadas fueron: depresión, ansiedad, trastornos del estado de ánimo, esquizofrenia y trastornos debidos al uso de sustancias psicoactivas. Conclusión: Se concluyó que los trastornos mentales aumentan la probabilidad de intentos de suicidio e ideaciones.

DESCRIPTORES: Suicidio, factores de riesgo, trastornos mentales.

RESUMO
Objetivo: O presente trabalho tem por objetivo estudar os transtornos mentais como fatores de risco de suicídio e ideação suicida, a fim de obter informações que possam servir de ferramentas para um trabalho preventivo e tornar mais eficazes os tratamentos desses pacientes. Método: O método escolhido para o estudo é de revisão bibliográfica de literatura nacional, realizada através das bases de dados SciELO, Lilacs e Medline, tendo sido selecionados artigos com os operadores booleanos: suicídio, tentativas de suicídio, ideação suicida, transtornos mentais e psicopatologia, totalizando 15 artigos para análise. Resultados: Como resultado, da análise de dados coletados, os sujeitos diagnosticados com transtorno mental apresentam maiores comprometimentos na saúde mental, aumentando a probabilidade de riscos de tentativas, ideações e suicídio. As principais comorbidades identificadas foram: depressão, ansiedade, transtornos de humor, esquizofrenia e transtornos por uso de substâncias psicoativas. Conclusão: Os transtornos mentais aumentam a probabilidade de tentativas e ideações suicidas.

DESCRIPTORES: Suicídio, fatores de risco, transtornos mentais.

Helena Ferreira Ramos Silva
Undergraduate student of the Psychology Course at Universidade Santo Amaro (UNISA).
ORCID: 0000-0002-6730-8312
INTRODUCTION

The World Health Organization (WHO)\(^1\) understands suicide as the act of deliberately killing oneself. There are a variety of attitudes and behaviors that include thinking about committing suicide and that can be understood as risky behavior. Suicidal ideation may also include: planning, attempting and committing suicide; and mental disorders, social and psychological factors and individual stressors of a subject are understood as risks. It is estimated that patients who commit suicide have a diagnosable psychiatric disorder in about 90% of cases; therefore, mental health problems are the most evident predictors of suicidal attempts, although it may be possible to identify other causes that manifest themselves momentarily.

Researches that address this issue indicate that depression as a result of its symptoms such as hopelessness, helplessness and apathy are the most evident factors in the literature, which are triggering factors for this act; anxiety due to symptoms of irritability, restlessness, fatigue and difficulty concentrating; mood disorders due to instability, aggressiveness and impulsivity traits; and schizophrenia and substance use disorder, which are also considered predictors of suicide due to high psychological distress and difficulties with personal life adversities. Other risk indicators are also identified as contributing to suicide, including social, economic, demographic and trauma factors in the subject’s life.\(^1\)\(^2\)

Authors claim that there is a link between suicidal behavior and the disease.\(^3\) That is, the presence of a mental disorder increases vulnerability and is present in almost all cases; but it cannot be said that every suicide is related to a mental disorder, just as not every person affected by a mental illness will actually commit suicide.

It is not just the diagnosis of some psychopathology, or a factor, that determines the cause of a suicide attempt; but rather, the set of factors that make up a process in the subject’s life and can result in suicide, most often as an escape from the problems faced in daily life.\(^3\) Understanding this phenomenon can favor research studies to understand suicide and its relationship with psychopathology, as well as providing subsidies for the prevention of this problem.

The objective of the present work is, therefore, to study mental disorders as risk factors for suicide and suicidal ideation, in order to obtain information that can serve as tools for preventive work and make treatments for these patients more effective.

METHODS

The research method used was the bibliographic review, which consists of reading articles and books already published, presenting advantages for the researcher as it has a greater coverage of the phenomena they want to study, without, however, encountering many restrictions that often occur in other types of research.\(^3\)

For the research information sources, the SciELo, Lilacs and Medline databases with national articles on the subject, written in Portuguese and within the designated period of the last 6 years, 2015 to 2020, were used (the search was carried out in December 2020). Boolean operators were considered: “suicide, suicide attempts, suicidal ideation, mental disorders and psychopathology”.

At first, the titles of selected articles were read through the considered keywords, and 15 articles were found for the SciELO database, 82 for the Lilacs database and 23 for Medline. In addition to the descriptors, it was necessary to use as inclusion criteria for the selection of articles: materials that contained information in the abstract that indicated an existing reflection between suicide and mental disorder, as well as the development of mental disorders and other risk factors for suicide, corresponding to the objective of the research, the article must be in Portuguese, be national and have as a result/conclusion an answer to the objective of the present work. As exclusion criteria, articles that did not correspond with the theme and objective of the present work were discarded, as well as repeated articles, outside the time interval and outside the national scope.

In the first stage of article selection, it was done by reading the titles. As a second step, the reading of the abstracts, in which 5 articles were found for the SciELo database, 7 for the Lilacs database and 3 for Medline. Below is a flowchart of article selection steps:

RESULTS

As a source of information for the research, the SciELo database was used, as one of the main data sources in the health area. The Lilacs and Medline databases were also used in this research for greater coverage of the phenomena. In the first stage, there were 120 articles from the databases and after the exclusion and inclusion criteria, 15 articles were selected in total, which had the objectives of the studied topic. The other articles were excluded for not being related to the research proposal.

The selected articles are from the last 6 years (2015 to 2020), with a greater number of publications being evidenced in 2020.
After analyzing the data collected, the results indicate that subjects diagnosed with mental disorder have greater impairments in mental health, increasing the likelihood of risk of attempts, ideations and suicide. The main associated comorbidities were identified: depression, anxiety, mood disorders, schizophrenia and substance use disorders.

DISCUSSION

To carry out this literature review, 15 articles were selected that involved the topic of suicide and mental disorder, studies referring to the topic due. According to Moreira et al., it was found that the diagnosis of mental disorder with the use of psychoactive substances have a greater impairment of mental health, increasing the likelihood of associated psychiatric comorbidities (such as depression, schizophrenia, bipolar disorder and anxiety).

### Board 1: Statement of eligible articles in the study.

<table>
<thead>
<tr>
<th>AUTHORS</th>
<th>TITLE</th>
<th>OBJECTIVE</th>
<th>METHOD / SAMPLE</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moreira et al</td>
<td>Mental Disorder and Suicide Risk in Psychoactive Substance Users: An Integrative Review.</td>
<td>Analyze the scientific evidence about the presence of mental disorders and the risk of suicide in psychoactive substance users.</td>
<td>Integrative literature review.</td>
<td>Substance users have a greater impairment of mental health, increasing the likelihood of associated psychiatric comorbidities (such as depression, schizophrenia, bipolar disorder and anxiety).</td>
</tr>
<tr>
<td>Capistrano</td>
<td>Factors Associated with Attempted Suicide by People with Mental Disorders.</td>
<td>Identify factors associated with attempted suicide by people with mental disorders.</td>
<td>Observational and cross-sectional study carried out with 300 people with mental disorders.</td>
<td>It was found that being female and perceiving health as poor and regular and not adhering to drug therapy were the prominent factors associated with a history of suicide attempt.</td>
</tr>
<tr>
<td>Silva et al.</td>
<td>The Relationship between Coronavirus Infection and Susceptibility to Mental Disorders and the Risk of Suicide: What has the Literature shown?</td>
<td>Identify scientific evidence on the profile related to mental health in people after acquiring coronavirus infection.</td>
<td>Integrative literature review</td>
<td>There was a direct relationship between the development of mental disorders in patients from COVID-19 and the risk of suicide.</td>
</tr>
<tr>
<td>Grigolatto et al</td>
<td>Suicide Attempts Reported in a Teaching Hospital in the State of Rio Grande do Sul, 2014-2016</td>
<td>To characterize the suicide attempts reported in a teaching hospital in the state of Rio Grande do Sul, Brazil.</td>
<td>Quantitative and retrospective research.</td>
<td>For 93% of people who attempted suicide, there was some disability or associated disorder.</td>
</tr>
<tr>
<td>Orellana</td>
<td>Mental Disorders in Adolescents, Youth and Adults of the Consortium of Brazilian Birth Cohorts RPS (Ribeirão Preto, Pelotas and São Luís)</td>
<td>To assess the prevalence of mental disorders in adolescents, youth and adults and their relationship with sociodemographic characteristics in five states.</td>
<td>Research based on data collected at birth from three geographically and socioeconomically distinct Brazilian cities.</td>
<td>There was a relationship between mental disorder and suicide risk.</td>
</tr>
<tr>
<td>Year</td>
<td>Authors</td>
<td>Title</td>
<td>Summary</td>
<td>Study Type</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>2020</td>
<td>Neto et al</td>
<td>Attempted Suicide, Post-Traumatic Stress Disorder, and Associated Factors in Recife Women.</td>
<td>To investigate the association of the suicide attempt with post-traumatic stress disorder.</td>
<td>Cross-sectional study nested in a prospective cohort study of 644 women.</td>
</tr>
<tr>
<td>2020</td>
<td>Oliveira et al</td>
<td>Characteristics of Suicide Attempts Attended by the Pre-Hospital Emergency Service: An Epidemiological Cross-Section Study.</td>
<td>To describe the profile of victims of suicide attempts attended by the Fire Department in a municipality in the Brazilian semi-arid region.</td>
<td>Cross-sectional study with victims of attempted suicide cared for by firefighters.</td>
</tr>
<tr>
<td>2019</td>
<td>Nascimento et al</td>
<td>Association between Eating Disorders, Suicide and Depressive Symptoms in University Health Courses.</td>
<td>Identify symptoms of eating disorders and possible associations with suicide risk and depressive symptoms.</td>
<td>Cross-sectional cohort study, carried out with 271 students.</td>
</tr>
<tr>
<td>2019</td>
<td>Minayo; Figueiredo; Mangas.</td>
<td>Studies of Scientific Publications (2002 - 2017) About Suicide Ideation, Suicide Attempts and Self-neglect of Elderly Interned in Long-Term Institutions.</td>
<td>Present publications on suicidal ideation, suicide attempt and self-neglect in elderly hospitalized in LSIE.</td>
<td>Study based on scientific studies.</td>
</tr>
<tr>
<td>2018</td>
<td>Botti</td>
<td>Characteristics and Risk Factors of Suicidal Behavior among Men and Women with Psychiatric Disorders.</td>
<td>Identify characteristics of suicidal behavior and risk factors in men and women with psychiatric disorders.</td>
<td>Quantitative study carried out with 410 medical records of psychiatric patients.</td>
</tr>
<tr>
<td>2017</td>
<td>Borba et al</td>
<td>Profile of the Person with Mental Disorder under Treatment at the Psychosocial Care Center (CAPS - Centro de Atenção Psicossocial).</td>
<td>To characterize the profile of patients with mental disorders undergoing treatment at the Psychosocial Care Center.</td>
<td>Descriptive study carried out with 300 patients with mental disorders.</td>
</tr>
<tr>
<td>2016</td>
<td>Fernandes; Ferreira; Castro.</td>
<td>Epidemiological Profile of Suicide Attempts in Palmas-Tocantins, from 2010 to 2014.</td>
<td>To describe the epidemiological profile of suicide attempts reported in residents of Palmas.</td>
<td>Descriptive/quantitative epidemiological study.</td>
</tr>
<tr>
<td>2015</td>
<td>Pires et al.</td>
<td>Risk Indicators for Attempted Suicide by Poisoning: A Case-Control Study.</td>
<td>Investigate possible risk indicators for suicide attempts by poisoning.</td>
<td>Case-control study with 220 people.</td>
</tr>
</tbody>
</table>
Mental Disorders as a Risk Factor for Suicide and Suicidal Ideation

Ramos Silva, H.F.; Pucci, S.H.M.;

substances is more compromised in the subject’s mental health, increasing the probability of greater comorbidities, such as depression, schizophrenia, bipolar disorder and anxiety, considerably increasing the risk of suicide by up to 5.7 times. Corroborating this result, a study carried out in Brazil by Hess et al., with 94 men identified a higher occurrence of psychiatric disorders among individuals who use psychoactive substances, causing a greater risk of suicide, especially with regard to the consumption of multiple substances.

In the second article referenced by Capistrano et al., it was understood that when the subject with a history of mental disorder does not adhere to the proposed drug therapy, the worsening of their clinical condition is identified, favoring the development of factors associated with suicide attempts (67.7%) with patients undergoing treatment in one CAPS from Curitiba, with 47.3% women and 20.3% men. Data from a study carried out with the Canadian population identified that the prevalence of suicide attempts among people diagnosed with schizophrenia was 32.2%, while the population without a diagnosis of the disease was 2.8%, demonstrating that those with schizophrenia present 6 times more feasibility of attempting suicide.7

A survey by Santos et al.8 during the rapid and sudden proliferation of the COVID-19 virus, showed that one of the impacts caused by the coronavirus is directly related to the mental health of the population, causing a high prevalence of psychological and psychiatric suffering and symptoms of anxiety, depression and stress disorders post-traumatic stress disorder, increasing the chances of suicide risk. Facing this result, a work9 found that the vast majority of patients who contracted the coronavirus may face psychological problems triggered by the pandemic scenario, including depression, anxiety and stress, and psychiatric patients diagnosed with depression or schizophrenia, require health professionals to pay full attention, as the risk of committing suicide is significantly higher than compared to the general population.

In the research carried out by Grigoletto et al.10 in a teaching hospital in the state of Rio Grande do Sul, Brazil, characterized the suicide attempts recorded between 2014 and 2016, a total of patients who had any type of disorder associated with suicide attempts. Notifications with mental and behavioral disorders were identified, with 93% of patients who attempted suicide, had some comorbidity or associated disorder, mainly depression. This finding was also verified in another work11 who compared the high frequency of psychological comorbidities, such as major depression, generalized anxiety and social phobia related to the risk of suicide. Against these results, a Finnish study, analyzing the prevalence and comorbidity of mental disorders (93%) in a random sample of 229 suicide victims, found depression (59%) and alcohol dependence or abuse (43%) among the most prevalent disorders.12

According to Neto et al.13 in a research carried out in the city of Recife with 644 women between 18 and 49 years old, registered in the Family Health Strategy, found that suicide attempts, in addition to being related to post-traumatic stress disorder and intimate partner violence, can also be a result of social, economic and demographic factors. The prevalence and chances of suicidal attempts in women who had post-traumatic stress disorder was approximately 5 times higher than those who had no symptoms. Corroborating these results, a study in Northern Ireland found that the risk of suicide ideation, plans and attempts is substantially higher in people with...
mental disorders. Posttraumatic stress disorder rates are the highest in the country, with 4.3% in women and 2.3% in men. 14

A cross-sectional study 15 containing data from the assistance to victims of suicide attempts, carried out by military firefighters in the state of Alagoas, it was observed that the presence of a mental disorder was predominantly among males with 76.5%. In females, there was a predominance of intoxication. Against this result, another study with 164 cases of subjects who attempted suicide by exogenous intoxication, 70.1% were women and 29.1% men, 16 as well as in a study carried out by Corrêa et al in the city of São Paulo, which identifies intoxication and poisoning as the main means in adult suicide attempts. 17

the article by Nascimento, 18 verified in a cross-sectional study carried out with 271 university students from health courses, possible associations of symptoms of eating and depressive disorders with the risk of suicide. In that same study, it was identified that students who presented symptoms of anorexia nervosa and bulimia nervosa, as well as those with symptoms of depression, were more likely to be at risk of committing suicide. The main subtypes of eating disorders evidenced in the literature are anorexia and bulimia nervosa, in an integrative literature review it was evidenced according to Veras et al. 19 positive correlation in the relationship between eating disorders and suicidal behavior.

According to Minayo et al 20, in a survey conducted with elderly people hospitalized in long-stay institutions, they showed greater suicidal behavior compared to the elderly population in general. In this integrative review, psychiatric problems were identified as risks of suicidal ideations and attempts among elderly people, with depression being the biggest of all, anxiety, personality disorder, behavioral disorder, in addition to frailty and limitations due to age-related causes. In fact, it was found that physical, neurobiological, psychological and social problems are indicators of risk factors in the contribution of thoughts, feelings, attempts and execution of suicide committed by the elderly. Depression is the most relevant illness among the factors associated with suicide in this age group. 21

Findings from a quantitative study by Botti et al 22 with 410 medical records of psychiatric patients in a Psychosocial Care Center, supports the assertion that the greatest number of subjects with suicidal ideations or attempts have significant psychiatric comorbidities. The present study identified mood disorder as suicidal behavior among women, while men had disorders due to the use of psychoactive substances. As mental disorders are one of the main risk factors for suicide, the results of a study carried out in a Spanish psychiatric hospital with 79 cases of completed suicide showed that 54.3% had affective disorder; 37.1% depressive disorder; 14.3% bipolar disorder; 17.1% psychotic disorder and 42.9% for substance use disorders. Also in a study carried out with a Spanish sample, the research confirms the prevalence of a high rate of psychiatric disorders in individuals who commit suicide. 23

According to Borba et al, 24 in a descriptive study carried out with 300 patients from two CAPS in Curitiba diagnosed with some mental disorder, it was found with regard to suicide attempts, that individuals with mental disorders have 3 to 12 times greater risk of committing suicide compared to those without psychiatric illness. The prevalent comorbidities of patients diagnosed with mental disorder at the CAPS were bipolar affective disorder (33.6%), schizophrenia (19.1%) and depression (18.6%). 67.7% of patients attempted suicide and 78.6% required hospitalization to better control their psychological state. Results found in another study indicate that individuals who suffer from affective disorders are more likely to commit suicide. 25

A survey conducted in Palmas, Tocantins by Fernandes and Ferreira, 26 notifications of 656 cases of suicide attempts were analyzed, with attempts being 12.15 times greater than completed suicide. In this sample, there was a relationship below the percentages, when compared to other studies, with 33.11% individuals identified with mental disorders, and depression, the disorder with the highest prevalence in association with suicide. On the other hand, a study carried out in the Latin America and Caribbean region shows an increase in suicide rates in almost all Latin American countries, classified as potential suicidal risk factors in association with anxiety disorder and major depressive disorder. 27
In the sample of a survey carried out in the emergency room of the Hospital de Restauração in the city of Recife, there were indicators of risk of attempted suicide, financial issues, childhood sexual abuse, suicidal ideation, psychiatric comorbidities and mental disorders (such as major depressive episode and generalized anxiety). The probabilities of a subject exhibiting self-destructive behavior in the presence of four risk factors simultaneously would increase the chances of a suicide attempt by poisoning by up to 94%. 28

Similar data were obtained in another study by Vasconcelos et al. 29 showing that subjects with Generalized Anxiety Disorder (GAD) have a high relationship with other psychiatric comorbidities, namely mood disorders and major depression. The presence of this disorder significantly increases the risk of suicide, with 54% being individuals with GAD. Corroborating the above results, subjects with GAD are at high risk for other psychiatric comorbidities such as depression/dysthymia, in addition to being associated with greater chances of suicidal attempts and ideations throughout life. 30

CONCLUSION

The development of this research made it possible to identify the main prevalent mental disorders as risk factors in behavior and suicidal ideation. These include depression, anxiety, mood disorders, substance use disorder and schizophrenia. The analyzed studies allowed us to conclude that the development of a psychopathological comorbidity contributes as a risk factor for suicide. Thus, mental disorders are classified as one of the main risk factors for ideation, attempt and suicide. However, it is necessary to understand that not every individual diagnosed with a psychiatric comorbidity will commit suicide, and that not every suicide has a diagnosis of mental disorder.

Studies on this topic are extremely important as they provide information to health professionals and the population, thus contributing to better knowledge and deepening on the subject. It is important to develop further research containing discussions on better care strategies for the prevention and care of individuals with suicidal behavior, in order to minimize this problem.

REFERENCES

12. Orellana JDY; Ribeiro MRC; Barbieri MA; Saraiva MC; Cardoso VC; Bettiol H; Silva AAM; Barros FC; Gonçalves H; Wehrmeister FC; Menezes AMB; Del-bem CM; Horta BL; Transtornos Mentais em Adolescentes Jovens e Adultos do Consócio de Coortes de Nascimento Brasileiras RPS (Ribeirão Preto, Pelotas e São Luís). Cad. Saúde Pública [online]. 2020. [acesso em 19 mar 2021]. Vol