

Prevalence of Attempted Suicide by Exogenous Poisoning with Medication in the City of Salvador, Bahia, in the Period of 2015-2019

Prevalência de Tentativa de Suicídio por Intoxicação Exógena com Medicamentos na Cidade de Salvador, Bahia, no Período de 2015-2019

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Abstract

Exogenous intoxication is one of the main mechanisms used in suicide attempts in Brazil, making it a condition of weekly, compulsory notification. The aim of this study is to analyze the prevalence of suicide attempts induced by medication in the city of Salvador, Bahia from 2015 to 2019. This is an ecological study following a time-trend analysis. People who used pharmacological drugs that led to exogenous intoxication for the purpose of committing suicide were included and cases in which the attempt was successful were excluded. The data search was made on DATASUS and SUVISA, and the following data were collected: race, sex, suicide attempt, detailed age, occupation, medication and city. 1418 victims of suicide attempts due to exogenous drug intoxication were reported in the years 2015 to 2019. Of this total, the prevalent demographic characteristics for victims of suicide attempt due to exogenous pharmacological intoxication were the female sex, brown race, age group from 20 to 34 years old, complete high school education, and students. With these findings, the present study aims to emphasize this condition of compulsory notification, since the reversal of these growing data requires the implementation of public policies and health programs that provide a greater awareness of the topic and access to trained professionals, in addition to the dissemination of information.

Keywords: Poisoning. Prevalence. Suicide.

Resumo

A intoxicação exógena é um dos principais mecanismos utilizados nas tentativas de suicídio no Brasil, tornando-se condição de notificação compulsória semanal. O objetivo deste estudo é analisar a prevalência de tentativas de suicídio induzidas por medicamentos na cidade de Salvador, Bahia, no período de 2015 a 2019. Trata-se de um estudo ecológico seguindo uma análise de tendência temporal. Foram incluídas pessoas que utilizaram medicamentos farmacológicos que levaram à intoxicação exógena com o objetivo de cometer suicídio e excluídos os casos em que a tentativa foi bem-sucedida. A busca de dados foi feita no DATASUS e SUVISA, e foram coletados os seguintes dados: raça, sexo, tentativa de suicídio, idade detalhada, ocupação, medicamento e cidade. Foram notificadas 1.418 vítimas de tentativas de suicídio por intoxicação medicamentosa exógena nos anos de 2015 a 2019. Desse total, as características demográficas prevalentes para vítimas de tentativa de suicídio por intoxicação farmacológica exógena foram o sexo feminino, a raça parda, a faixa etária de 20 a 34 anos, ensino médio completo, e estudantes. Com esses achados, o presente estudo visa enfatizar essa condição de notificação compulsória, uma vez que a reversão desses dados crescentes exige a implantação de políticas públicas e programas de saúde que proporcionem maior conscientização sobre o tema e acesso a profissionais capacitados, além do disseminação de informação.

Palavras-chave: Intoxicações. Prevalência. Suicídio.

1 Introduction

Exogenous intoxication is defined as a set of manifestations, clinical or laboratory, that demonstrate alteration in the organic balance generated by the interaction of one or more toxic agents with the organism.¹ Exogenous intoxication is one of the main mechanisms used in suicide attempts in Brazil and is a condition that requires weekly, compulsory notification.^{2,3}

According to the Ministry of Health (2019), in the fifteenth epidemiological bulletin, the epidemiological profile of suicide attempts is mainly characterized by female individuals, aged between 15 and 25 years old, white race/skin color, who reside in urban area and use pharmacological drugs as a toxic agent.²

There are several factors that influence in the choice of the method for attempting suicide. Among them, psychosocial factors, sociocultural acceptability and access to certain methods stand out. The great availability of access to medications - mainly nonsteroidal anti-inflammatory drugs (NSAIDs) such as paracetamol and dipyron - favors the household stock and justifies the high rates of suicide attempt by this means⁴⁻⁶.

The number of suicide attempts and successful suicides becomes more significant each year, being among the twenty main causes of death in the world.^{7,8} In Brazil, regarding suicide attempts, there is a higher prevalence of intoxication through the use of pharmacological drugs as a method of choice.² Given this scenario and taking into account the scarcity of studies on the subject in the capital of Bahia, the

present study aims to analyze the prevalence of suicide attempt by pharmacological drugs in the city of Salvador, Bahia from 2015 to 2019; and describe the epidemiological profile of exogenous intoxication, with the purpose of attempting suicide, through the use of medications.

2 Material and Methods

This is an ecological study following a time-trend analysis, focusing on individuals aged between 15-64 years who attempted suicide due to exogenous drug intoxication, regardless of sex and race. The research inclusion criteria are people who used medications that led to exogenous intoxication with the intention of committing suicide and who were aged between 15 and 64 years old. In addition, the exclusion criteria were the cases that successfully resulted in suicide.

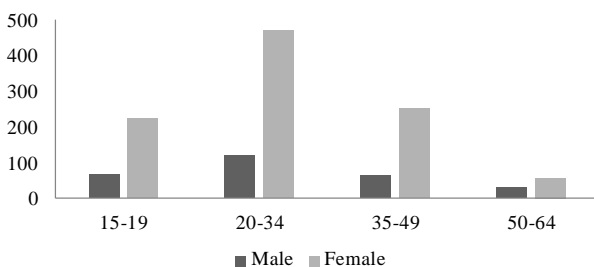
Data were extracted on September 20th, 2020, through the notifications of exogenous intoxications consulted in the database of the Information System for Notifiable Diseases (SINAN) made available by the Department of Information Technology of the Unified Health System (DATASUS), at the electronic address (<http://www.datasus.gov.br>). In addition, the resident population of the city of Salvador was used to calculate the prevalence, in a study of population estimates by city, age and sex from 2000-2020 (TABNET).

Data analysis will be presented as tables and charts organized using Microsoft Excel 2019 software, which was also used to calculate the prevalence rates of attempted suicide. These rates were calculated by the ratio between the number of individuals who tried and the resident population during the period studied, and multiplying by 100,000.

3 Results and Discussion

Between 2015 and 2019, 1418 victims of suicide attempt due to exogenous pharmacological drug intoxication were reported. Of this total, the female sex prevails with 38.78 cases per 100 thousand inhabitants (79%) in relation to the male sex with 10.58 cases per 100 thousand inhabitants (21%) (Table 1). Furthermore, it is evident that the 20-34 age demographic has more notorious numbers, both in women and men, when compared with the others. A relevant fact is that the total numbers of females are more expressive in all age groups, leading the occurrence of cases. (Figure 1).

Figure 1 - Association between the number of notifications by gender and age range of suicide attempts due to exogenous drug intoxication in the years of 2015-2019. Salvador, Bahia - Brazil



Source: SESAB/SUVISA/DIVEP/SINAN

In the exploration of the race variable data, it is observed that the brown population was the most evident victim when related to other races with a prevalence of 11.7 cases per 100 thousand inhabitants (24%). The second most prevalent population is Black with 2.54 cases per 100 thousand inhabitants (4%), followed by the white population with 1.85 cases per 100 thousand inhabitants (4%), however, in 33.11 cases per 100,000 inhabitants (67%) these data were ignored or blank (Table 1).

Table 1 – Prevalence per 100 thousand inhabitants of attempted suicide by drugs in Salvador, Bahia, according to sociodemographic characteristics, in the period of 2015-2019

| Variables | Years | | | | |
|--|-------|------|------|------|-------|
| | 2015 | 2016 | 2017 | 2018 | 2019 |
| Gender | | | | | |
| Male | 1.60 | 1.38 | 0.99 | 2.66 | 4.04 |
| Female | 3.88 | 3.96 | 5.63 | 8.2 | 16.75 |
| Age group | | | | | |
| 15-19 | 0,75 | 0,85 | 1,48 | 2,69 | 4,42 |
| 20-34 | 1,96 | 1,95 | 2,32 | 4,76 | 9,64 |
| 35-49 | 1,49 | 1,73 | 1,27 | 2,38 | 4,18 |
| 50-64 | 0,57 | 0,53 | 0,25 | 0,56 | 1,15 |
| Race | | | | | |
| Ignored/Blank | 4,45 | 4,78 | 4,82 | 6,51 | 12,81 |
| White | 0,18 | 0,07 | 0,07 | 0,49 | 1,04 |
| Black | 0,07 | 0,07 | 0,35 | 0,80 | 1,25 |
| Yellow | 0,00 | 0,00 | 0,00 | 0,03 | 0,03 |
| Brown | 0,75 | 0,42 | 1,34 | 3,64 | 5,61 |
| Indigenous | 0,04 | 0,00 | 0,04 | 0,00 | 0,03 |
| Education level | | | | | |
| Ignored/Blank | 4,91 | 4,99 | 5,31 | 8,75 | 16,19 |
| No Schooling | 0,04 | 0,00 | 0,00 | 0,00 | 0,00 |
| 1 st to 4 th grade incompleted | 0,07 | 0,00 | 0,04 | 0,03 | 0,07 |
| 4 th grade completed | 0,00 | 0,00 | 0,00 | 0,03 | 0,07 |
| 5 th to 8 th grade incompleted | 0,14 | 0,00 | 0,35 | 0,42 | 0,59 |
| Primary School completed | 0,00 | 0,07 | 0,11 | 0,42 | 0,28 |
| High school incompleted | 0,00 | 0,14 | 0,28 | 0,63 | 0,87 |
| Education level (continue) | | | | | |
| High school completed | 0,18 | 0,14 | 0,18 | 0,66 | 1,39 |
| Higher education incompleted | 0,00 | 0,00 | 0,14 | 0,28 | 0,66 |
| Higher education completed | 0,04 | 0,00 | 0,18 | 0,10 | 0,49 |
| Does not apply | 0,11 | 0,00 | 0,04 | 0,14 | 0,17 |
| Occupation | | | | | |
| Ignored | 0,00 | 0,04 | 0,00 | 0,14 | 0,49 |
| Student | 0,28 | 0,14 | 0,60 | 0,73 | 1,78 |
| Chronic unemployment | 0,04 | 0,07 | 0,04 | 0,17 | 0,10 |
| Healthcare field | 0,00 | 0,00 | 0,07 | 0,07 | 0,07 |
| Education field | 0,00 | 0,00 | 0,00 | 0,07 | 0,28 |

| Variables | Years | | | | |
|---------------------|-------|------|------|------|------|
| | 2015 | 2016 | 2017 | 2018 | 2019 |
| Domestic occupation | 0,00 | 0,00 | 0,07 | 0,07 | 0,07 |
| Service workers | 0,14 | 0,07 | 0,11 | 0,35 | 0,28 |
| Others | 0,00 | 0,04 | 0,00 | 0,07 | 0,1 |

Caption - Education field: teacher of youth and adult education in elementary school (first to fourth grade); administration professor; pedagogue; high school teacher in elementary school. **Healthcare field:** dentist - general practitioner; social worker; nursing technician; elderly caregiver. **Domestic occupation:** housewife; domestic servant usher; daily housekeeper. **Service workers:** licensed seller; retail salesman; bricklayer; tailor made to order; joiner; self-employed commercial representative; office assistant, in general; personnel assistant; agency attendant; cashier; receptionist, in general; active telemarketing operator; collective transport collector (except train); waiter; attendant cafeteria; hair stylist; manicure; makeup artist; nanny; wholesaler; retailer. **Chronic unemployment:** chronic unemployment or whose habitual housing could not be obtained. **Others:** retired / pensioner; lawyer; counter; banking product analyst; general cook.

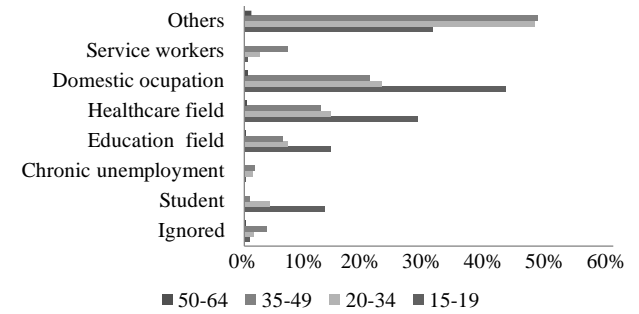
Source: SESAB/SUVISA/DIVEP/SINAN

The relationship between the age of individuals and the level of education of those who attempted suicide is of major interest. Observing the prevalence in the different age groups, the interval with the highest prevalence in the 5 years analyzed in this study is the period between 20 to 34 years of age with figures of 1.96 (41%); 1.95 (38%); 2.32 (44%); 4.76 (46%); 9.64 (50%) cases per 100 thousand inhabitants in 2015, 2016, 2017, 2018 and 2019, respectively (Table 1). In this context, schooling is congruent with the data evidenced, since people with a high school diploma prevail in this condition within the study period with 0.18 (3%); 0.14 (3%); 0.66 (6%) and 1.39 (7%) cases per 100 thousand inhabitants in the years 2015, 2016, 2018 and 2019, respectively. In 2017, the citizens who most attempted suicide had not completed the 5th to 8th grade of elementary and middle school with 0.35 (5%) cases per 100 thousand inhabitants (Table 1).

Regarding the occupation of individuals who attempted suicide, the isolated group that showed the highest prevalence were students, in the 5 years analyzed, with prominence in 2019 when there were 1.78 (54%) cases per 100 thousand inhabitants. Finally, it is of significant importance that another occupation, also analyzed as an isolated group, reveals a significant prevalence of suicide attempts, the chronically unemployed population, who present 0.17 (10%) cases per 100 thousand inhabitants in 2018 and 0.1 (3%) cases per 100 thousand inhabitants in 2019 (Table 1).

Between the years of 2015 and 2019, the age group with the highest cases of attempted suicide was between 20 and 34 years old, with a prevalence of 9.64 (50%) cases per 100 thousand inhabitants in 2019 (Table 1). In addition, when analyzing the occupation of individuals by age group, it is evident that the group that attempted suicide the most are students from 15 to 19 years old, corresponding to 4.19 cases per 100 thousand inhabitants (Figure 2).

Figure 2 – Prevalence of suicide attempt by drugs in Salvador, Bahia, according to age and occupation, in the period of 2015-2019

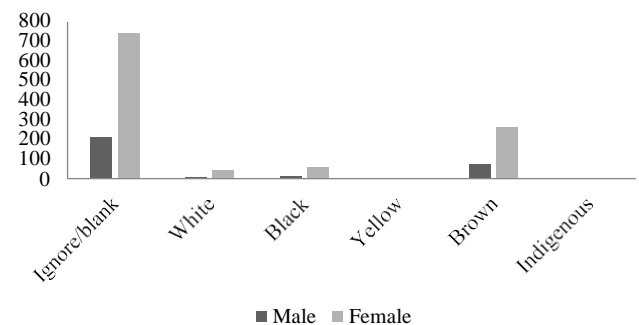


Caption - Education field: teacher of youth and adult education in elementary school (first to fourth grade); administration professor; pedagogue; high school teacher in elementary school. **Healthcare field:** dentist - general practitioner; social worker; nursing technician; elderly caregiver. **Domestic occupation:** housewife; domestic servant usher; daily housekeeper. **Service workers:** licensed seller; retail salesman; bricklayer; tailor made to order; joiner; self-autonomous commercial representative; office assistant, in general; personnel assistant; agency attendant; cashier; receptionist, in general; active telemarketing operator; collective transport collector (except train); waiter; attendant cafeteria; hair stylist; manicure; makeup artist; nanny; wholesaler; retailer. **Chronic unemployment:** chronic unemployment or whose habitual housing could not be obtained. **Others:** retired / pensioner; lawyer; counter; banking product analyst; general cook.

Source: SESAB/SUVISA/DIVEP/SINAN

When examining the numbers by race and gender, it is observed that the female profile stands out with a number of more exacerbated cases in all races, with a predominance within the brown population, which represents 265 reported cases. In addition, it is worth mentioning that, among the analyzed data, the largest amount of the notification forms were ignored or blank (951) (Figure 3).

Figure 3 – Relationship between race and gender of suicide attempts due to exogenous drug intoxication notifications in the years of 2015-2019. Salvador, Bahia - Brazil



Source: SESAB/SUVISA/DIVEP/SINAN.

The prevalence of suicide attempts by medication in the city of Salvador from 2015 to 2019 was shown to be increasing, reaching the value of 4.04 cases per 100 thousand inhabitants last year. In this scenario, it was also possible to highlight gender, occupation, as well as the age group with the highest number of suicide attempts. Thus, through this study, it becomes more evident the population profile that

lacks the most in measures that encompass mental healthcare. Thus, sociodemographic characteristics stand out, which are extremely important for understanding the Salvador panorama with regard to suicide attempt.

Between 2015 and 2019, 1418 individuals attempted suicide by exogenous drug intoxication in the city of Salvador, according to DATASUS. According to Durkheim - one of the first scholars to investigate patterns in suicide - the act of taking life is not just an individual action that depends exclusively on the person's intrinsic factors, but it is influenced by a comprehensive set of biopsychosocial factors.⁹ Furthermore, the analysis of suicide attempt rates patterns in this study, found that the main victims were female individuals and young students.

Despite the fact that males commit suicide more frequently than females, the literature^{2,10} points out that women are more likely to attempt suicide than men, agreeing with the present study, in which 79% of cases were women. One of the possible causes that can justify this phenomenon is the increasingly intense insertion of women in the labor market, which, unlike men, is socially limited by domestic and family responsibilities, associated with the cultural burden of demands and standards that are imposed as necessary for women.^{11,12}

In the current scenario, we see a woman who is expected to fulfill household chores, in addition to her professional burden which ends up generating overload, becoming triggering factors for the development of disorders related to anxiety symptoms and depressed mood.^{11,13} In addition, with regard to the means employed for suicide, women tend to use less violent methods than men. The preference is substance intoxication, due to the concern with body disfigurement, and a less suicidal intent and aggressiveness than men at the time of the act.^{10,14}

Studies indicate that, in relation to the pharmacological class most used in attempting suicides, there is a predominance of psychotropic drugs, especially anxiolytics and antidepressants.^{15,16} The greater inclination to use these drugs is linked to the knowledge of the population about the "immediate effects" that these drugs can cause, mainly related to sleep induction.^{17,18} In addition, the prescription of psychotropics can be performed by the general practitioner, not being exclusive to psychiatrists, and it is the medical specialty that most prescribes such drugs.^{19, 20} Stricter control over the prescription and also over the acquisition of these drugs can contribute to changing the profile of drugs used in suicide attempts.²¹

Among over-the-counter medications, analgesics have gained prominence, with dipyron as the most frequent substance, differing from other countries, where paracetamol and salicylates occupy the first places, and in numbers similar to psychoactive ones.^{15,22} A study on home drug stock, made in the Ibiá, Minas Gerais community, pointed out that, of the most commonly found pharmacological classes, analgesics

are the predominant drugs, followed by psychoactive ones, reflecting the ease of access to such drugs.⁷

The data indicate that the greatest involvement is found in the age group from 20 to 34 years and the victims' occupation with the highest number of cases was students, which is in line with the trend in recent years of the increase in suicide rates in the young population.^{12,23} However, notifications regarding occupation have a high percentage of not being reported, which weakens the information on this segment. Such data seem to reflect the changes related to the globalized world, generating more and more demands on young people, such as more years of study, specializations, and a routine so full that it ends up triggering an empty life. Thus, in an increasingly competitive, virtual, technical and fast world, one that does not fit contemporary social requirements may be more likely to attempt suicide.²⁴

It is important to highlight the existence of evidence that indicates that the decision to take one's own life is usually made shortly before the act is perpetrated. This fact becomes more evident in the younger population, showing a high impulsivity trend. Thus, restricting access to lethal methods in this at-risk population is considered a protective effect and measures to do so should be encouraged.²⁵

Regarding race, it is important to point out that the percentage of ignored/blank has a higher number, so it does not allow us to extrapolate this variable. In addition to the ignored data, a large number of notification forms with a predominance within the brown population is evidenced. Recent studies indicate that the number of young black (brown and black) individuals who have taken their own lives has been increasing in recent years, being linked to health vulnerability with conditions that favor certain risks or threats to the individual. In addition, racial prejudice and discrimination favor increased suicide rates.²⁶

The results presented in this study contribute to convey the need for the implementation of public measures and suicide prevention plans, since it is possible to observe the most vulnerable demographic at risk of attempting to commit this act, women and students. From this, it is relevant to think about interventions such as responsible dissemination of suicide through the media, the creation of spaces where the population has access to active professional counseling and, then, to be able to promote health education for adolescents and young adults in environments such as schools, colleges, workplaces, health facilities and communities.^{27,28}

In addition, training can be carried out so that society and, in particular, health professionals can pay attention and identify the potential risk for suicide attempts in the care or social environments and intervene in these situations. It is also relevant to develop awareness campaigns for the rational use of medication. Thus, the expansion of information and the recognition of individuals at possible risk can help reduce the rates of attempted suicide, since prevention is essential.^{15,29}

In addition, some limitations in the results of this study are

important to be analyzed. It is believed that, in some situations of suicide attempt, there is no notification of cases in health information systems or omission of some elements, which results in incompleteness of data which hinders statistical production. Thus, an improvement in the data availability and notification from sources can help mitigate these difficulties.³⁰

4 Conclusion

Suicide attempt through exogenous drug intoxication is a condition of compulsory notification, in which the prevalence is on the rise in the last five years in the city of Salvador. This act has been occurring mainly among women aged 20 to 34 years.

Given this increase in prevalence, the present study aims to emphasize this scenario, since the reversal of these growing data requires the implementation of public policies and health programs that provide a greater awareness of the topic and access to trained professionals, in addition to incorporating the role of media for the dissemination of information. These preventive actions should occur mainly in the places most frequented by the population at greatest risk.

There is also a need for further research in order to investigate the main drugs used in suicide attempts in the city of Salvador.

Reference

1. Ministério da Saúde. Secretaria de Vigilância em Saúde. Coordenação Geral de Desenvolvimento da Epidemiologia em Serviços. Guia de Vigilância em Saúde. Brasília: MS; 2017.
2. Ministério da Saúde. Secretaria de Vigilância em Saúde. Suicídio: tentativas e óbitos por intoxicação exógena no Brasil, 2007 a 2016. *Bol Epidemiol* 2019;50(15).
3. Ministério da Saúde. Portaria nº 204, de 17 de fevereiro de 2016. Define a Lista Nacional de Notificação Compulsória de doenças, agravos e eventos de saúde pública nos serviços de saúde públicos e privados em todo o território nacional [internet]. *Diário Oficial da União*. 2016.
4. Hawton K. Restricting access to methods of suicide rationale and evaluation of this approach to suicide prevention. *Crisis* 2007;28:4-9. doi: <https://doi.org/10.1027/0227-5910.28.S1.4>
5. Buckley NA, Gunnell D. Does restricting pack size of Paracetamol (Acetaminophen) reduce suicides? *PLoS Med* 2007;4(4):e152. doi: <https://doi.org/10.1371/journal.pmed.0040152>
6. Ribeiro MA, Heineck I. Estoque domiciliar de medicamentos na comunidade ibiaense acompanhada pelo Programa Saúde da Família, em Ibiá-MG, Brasil. *Saude Soc* 2010;19(3):653-63. doi: <https://doi.org/10.1590/S0104-12902010000300016>
7. World Health Organization [internet]. Suicide data. Geneva: WHO; 2020.
8. International Association For Suicide Prevention, editor. Working Together to Prevent Suicide. World Suicide Prevention Day Brochure; 2020 [Internet]. International Association For Suicide Prevention; 2020.
9. Durkheim E. O suicídio. São Paulo: Martin Claret; 2003.
10. Kaplan HI, Sadock BJ, Grebb JA. *Compêndio de psiquiatria: ciências do comportamento e psiquiatria clínica*. Porto Alegre: Artmed, 1997.
11. Joshi HE. Changing roles of women in the British labour market and the family. In: Deane P. *Frontiers of economic research*. London: Macmillan; 1990. p.101-28.
12. Goncalves LR, Goncalves E, Oliveira JLB. Determinantes espaciais e socioeconômicos do suicídio no Brasil: uma abordagem regional. *Nova Econ* 2011;21(2):281-316. doi: <https://doi.org/10.1590/S0103-63512011000200005>
13. Pinho OS, Araujo TM. Associação entre sobrecarga doméstica e transtornos mentais comuns em mulheres. *Rev Bras Epidemiol* 2012;15(3):560-72. doi: <https://doi.org/10.1590/S1415-790X2012000300010>
14. Hawton K, Arensman E, Wasserman D, Hultén A, Bille-Brahe U, Bjerke T, et al. Relation between attempted suicide and suicide rates among young people in Europe. *J Epidemiol Community Health* 1998;52(3):191-4. doi: <http://dx.doi.org/10.1136/jech.52.3.191>
15. Bernardes SS, Conceição AT, Matsuo T. Perfil das tentativas de suicídio por sobredose intencional de medicamentos atendidas por um Centro de Controle de Intoxicações do Paraná, Brasil. *Cad Saúde Pública* 2010;26(7):1366-72. doi: <https://doi.org/10.1590/S0102-311X2010000700015>
16. Townsend E, Howton K, Harriss L, Bale E, Bond A. Substâncias usadas no auto-venenamento deliberado 1985-97: tendências e associações com idade, sexo, repetição e intenção de suicídio. *Soc Psychiatry Psychiatr Epidemiol* 2001;36:228-34.
17. Rozemberg B. O consumo de calmantes e o “problema de nervos” entre lavradores. *Rev Saude Publica* 1994;28(4):300-8.
18. Lefèvre F. A oferta e a procura de saúde imediata através do medicamento: proposta de um campo de pesquisa. *Rev Saude Publica* 1987;21(1):64-7. doi: <https://doi.org/10.1590/S0034-89101987000100010>
19. Orlandi P, Notó AR. Uso indevido de benzodiazepínicos um estudo com Informantes - Chave no município de São Paulo. *Rev Latinoam Enferm* 2005;13:896-902. doi: <https://doi.org/10.1590/S0104-11692005000700018>
20. Andrade MF, Andrade RC, Santos V. Prescrição de psicotrópicos: avaliação das informações contidas em receitas e notificações. *Rev Bras Cienc Farm* 2004;40(4):471-9. doi: <https://doi.org/10.1590/S1516-93322004000400004>
21. Rabelo JF. Uso de medicamentos psicoativos: um estudo com jovens que tentaram o suicídio em Maringá - PR. Maringá: Universidade Estadual de Maringá; 2008.
22. Hawton K, Townsend E, Deeks J, Appleby L, Gunnell D, Bennewith O, et al. Effects of legislation restricting pack sizes of paracetamol and salicylate on self poisoning in the United Kingdom: before and after study. *BMJ* 2001;322:1203-7. doi: <https://doi.org/10.1136/bmj.322.7296.1203>
23. Vieira, LP. Caracterização de tentativas de suicídios por substâncias exógenas. *Cad Saúde Coletiva* 2015;23(2):118-23. doi: <https://doi.org/10.1590/1414-462X201500010074>
24. Dutra E. Suicídio de universitários: o vazio existencial de jovens na contemporaneidade. *Estud Pesq Psicol* 2012;12(3):924-37.
25. Gonçalves AM, Freitas PP, Sequeira CAC. Comportamentos suicidários em estudantes do ensino superior: factores de risco e de protecção. *Millenium* 2011;40:149-59.

26. Ministério da Saúde. Secretaria de Gestão Estratégica e Participativa. Departamento de Apoio à Gestão Participativa e ao Controle Social. Óbitos por suicídio entre adolescentes e jovens negros 2012 a 2016. Brasília: MS; 2018.
27. Fundação Oswaldo Cruz. Agência Fiocruz de Notícias. Novos dados do MS reforçam importância da prevenção do suicídio. 2018 [access on em 18 oct 2020]. Available from: <https://agencia.fiocruz.br/novos-dados-do-ms-reforcam-importancia-da-prevencao-do-suicidio>.
28. Correia CM, Gomes NP, Couto TM, Rodrigues AD, Erdmann AL, Diniz NM. Representações sobre o suicídio para mulheres com história de violência doméstica e tentativa do mesmo. *Texto Contexto Enferm* 2014;23(1):118-25. doi: <https://doi.org/10.1590/S0104-07072014000100014>
29. Correia CM, Diniz NMF, Gomes NP, Andrade IC, Campos LM, Carneiro JB. Sinais de risco para o suicídio em mulheres com história de violência doméstica. *SMAD, Rev Eletr Saúde Mental Álcool Drog* 2018;14(4):219-25. doi: <http://dx.doi.org/10.11606/issn.1806-6976.smad.2018.151401>
30. Kind L, Orsini ML, Nepomuceno V, Gonçalves L, Souza GA, Ferreira MF. Subnotificação e (in)visibilidade da violência contra mulheres na atenção primária à saúde. *Cad Saúde Pública* 2013;29(9):1805-15. doi: <https://doi.org/10.1590/0102-311X00096312>