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SUICIDE IN BRAZIL: SYSTEMATIC REVIEW STUDY FROM 2010 TO 2019

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Abstract: Introduction: For the World Health Organization (W.H.O.), suicide is a complex and multi-causal phenomenon, with individual and collective impact, which can affect individuals of different origins, gender, cultures, social classes and ages. It is etiologically related to a range of factors, ranging from sociological, economic, political, cultural, to psychological, psychopathological and even biological factors. **Methodology:** This is a Systematic Review study regarding suicide mortality rates in Brazil, from 2010 to 2019. The methodological procedures that guided the execution of the research include databases from the SciELO and LILACS platforms, with the Systematic Review being carried out. Results: 163 publications on the topic were found, 54 were in English, and 06 articles that studied the topic of suicide in Brazil were selected and analyzed, several studies were found and those that did not fit the objectives of the work were discarded.

Keywords: Suicide; Public policy; Prevention.

INTRODUCTION

Suicide is considered one of the main causes of death worldwide and is an adverse, complex problem that challenges different areas of knowledge, policies and researchers in the search for understanding this phenomenon that goes beyond a public health issue and its risks have increased dramatically in the post-covid-19 period.

The act of killing oneself is complex and understanding its causes and motivations requires a lot from researchers from different areas of knowledge and, with the advancement of science and evidence-based psychology, studies advance and get closer to the different nuances of this multifaceted phenomenon that still it needs countless discussions and interventions for its prevention.

According to the latest estimates from the World Health Organization (W.H.O.)

published in the report “Suicide worldwide in 2019”, more people die as a result of suicide than chronic diseases, wars or homicides. According to the report dated 2019, one in every 100 deaths was caused by suicide in a total of more than 700 thousand people, leading the WHO to launch new guidelines to help countries improve care for suicide prevention.

Suicide is a serious global public health problem. Globally, 703,000 people die by suicide every year. Suicide is among the leading causes of death worldwide, with more deaths from suicide than from malaria, HIV/AIDS, breast cancer or war and homicide. More than one in every 100 deaths (1.3%) in 2019 were the result of suicide. (OMS: 2021:01).

Self-destruction is ancient, but nowadays suicidal ideation and the consequences of taking one’s own life are a growing demand for public health services, followed by several risk factors and considering the high rate of 800,000 deaths resulting from suicide per year, it is necessary to investigate and analyze the problem. “The evolution of suicide is thus made up of waves of movements, distinct and successive, that occur through impulses developing for a while, then stopping and then starting again” (Durkheim, 2000:19).

Durkheim, a classic who studied suicide, explains the phenomenon through extra-social or social causes and tries to define the social element in which suicide consists. For Minayo and Cavalcante (2010), suicide would be an “act of will”, where an individual who is in acute suffering makes a choice to kill themselves, as they cannot see any other relief for the pain they are feeling, wanting to see themselves free from an intolerable situation. She also points to social isolation, not that the individual completely deprives himself of contact with other people, but he maintains a certain psychic distance.

From the perspective of psychology,

concepts about suicide can also be found. For HOLMES (1997): “Freud once wrote that suicides could be considered as disguised murders” (p. 203), thus pointing out the similarities between these two violent phenomena.

METHODOLOGY

This is a Systematic Review study regarding suicide mortality rates in Brazil Post COVID-19, from 2019 to 2023. The methodological procedures that guided the research included data collection, based on qualitative and quantitative methods, since that data were collected that allowed describing their results, and deepening them with regard to the situation of people who have idealized suicide or are at imminent risk in the literature.

It also aimed to construct a probabilistic sampling of the results found in order to facilitate the understanding of the discussion of the final results, in addition to visualizing them in a statistical way. Interviews with professionals aim to understand how the problem is faced and what are the main drivers of suicide in the municipality.

RESULTS AND DISCUSSION

According to the World Health Organization, more than 700,000 people die each year as a result of suicide, representing one in every 100 recorded deaths. This is a reality that is very close to all of us, who doesn't know someone or have heard a story about someone who committed suicide? Although global suicide rates show regression, the Americas region has shown the opposite trend with increasing numbers. Among young people aged 15 to 29, suicide appears as the fourth most common cause of death, behind traffic accidents, tuberculosis and interpersonal violence. (MS, 2022).

Suicide presents itself as a highly complex

phenomenon, which involves numerous aspects highlighted by different authors. According to Brasil (2012), suicide can present characteristics arising from several factors such as biological, genetic, psychological, social, cultural and environmental. It also represents one of the most enigmatic and disturbing human behaviors, as it seems irremediably destructive and brings with it a set of feelings, such as guilt and shame, perplexity, fear and revolt, among others (ARAÚJO et al, 2012).

Below we present some described and commented findings, seeking to highlight their trends and pointing out possible inferences regarding their meaning based on the proposed systematic review study.

In the period from 2010 to 2019, the most recent data made available by DATASUS, Brazil recorded, on an ascending basis, 108,020 deaths due to suicide, known as voluntary self-harm. The data shows an exponential increase in suicides in the North Region, from 3.9% in 2010 to 5.7% in 2019. Table 1 presents data on deaths by suicide in the period from 2010 to 2019 in Brazil, in the North Region and in the Federation Units. (Silva D.A. 2021).

Table 1 represents the evolution of the Mortality Rate due to self-inflicted injuries (suicide) in Brazil, calculated using data obtained from the Department of Informatics of the Unified Health System (DATASUS) on the number of deaths by suicide in Brazil in the period from 2010 to 2019 and the Brazilian Institute of Geography and Statistics (IBGE), on the population residing in the country in the same period mentioned above, which provides data from before the establishment of the pandemic state in the country.

According to table I, the highest incidence is found in the Southeast, South and Northeast areas respectively, and in ten years this number rises in all regions, and dramatically in other regions such as the Southeast and Northeast. consistent in the death numbers in the

| Region | Year | | | | | | | | | |
|------------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| North | 622 | 692 | 693 | 758 | 703 | 875 | 824 | 896 | 986 | 1.054 |
| Northeast | 2.126 | 2.291 | 2.338 | 2.492 | 2.396 | 2.537 | 2.719 | 2.980 | 2.990 | 3.082 |
| Southeast | 3.730 | 3.905 | 3.995 | 3.962 | 4.276 | 4.323 | 4.245 | 4.640 | 4.675 | 4.914 |
| South | 2.154 | 2.153 | 2.361 | 2.363 | 2.324 | 2.494 | 2.606 | 2.860 | 2.896 | 3.177 |
| Midwest | 816 | 811 | 934 | 958 | 954 | 949 | 1.039 | 1.119 | 1.186 | 1.293 |
| Total | 9.448 | 9.852 | 10.321 | 10.533 | 10.653 | 11.178 | 11.433 | 12.495 | 12.733 | 13.520 |

TABLE I. DEATHS FROM EXTERNAL CAUSES - BRAZIL
VOLUNTARILY CAUSED SELF INJURIES 2010 to 2019

Source: MS/SVS/CGIAE - Mortality Information System – SIM, prepared by the authors, 2023

| THEME | PUBLICATION YEAR | GOAL | METHOD | RESULT |
|--|------------------|--|--|--|
| Suicide mortality among indigenous children in Brazil | 2019 | Describe the characteristics, distribution and suicide mortality rates among indigenous children in Brazil, compared to non-indigenous children. | Descriptive study, covering the years 2010 to 2014, using data from national information systems. | Hanging was the most frequently used method, both among indigenous and non-indigenous people, although it was more frequent in the first group. Among indigenous people, the occurrence of suicide in hospitals or other health establishments was lower than that observed among non-indigenous people. |
| Trend in suicide mortality in the Brazilian and elderly population, 1980–2006 | 2012 | To describe suicide mortality in Brazil, with emphasis on the elderly population. | Temporal analysis and trend study using polynomial regression of suicides in the population over ten years of age in Brazil and the State of Rio de Janeiro from 1980 to 2006. | Significant growth was observed in suicide rates in the Brazilian population and in Rio de Janeiro (5.7 and 3.1 for every 100 thousand inhabitants, respectively) in 2006. This increase was due to the increase in suicides in the male population at all ages. |
| Assessment of the completeness of the Information System on Suicide Mortality in the Southeast region, Brazil, from 1996 to 2007 | 2010 | Analyze the completeness of SIM data on suicide deaths in ES, Southeast and Brazil (1996 to 2007), referring to demographic variables | Analytical descriptive study based on secondary data. Deaths registered in SIM due to suicide in Espírito Santo, Southeast and Brazil were included. | The equations of the models found indicate that the trends of non-completeness for some variables are increasing, while for others they are decreasing and statistically significant. |
| Mortality due to suicide among adolescents in Brazil: temporal growth trend between 2000 and 2015 | 2019 | To analyze the temporal trend of suicide mortality among adolescents in Brazil from 2000 to 2015 | Data were collected from the Mortality Information System (SIM) and the Brazilian Institute of Geography and Statistics (IBGE) | Between 2000 and 2015, 11,947 deaths by suicide were observed in adolescents in Brazil, and 67% of them were male, which corresponds to a sex ratio of 2.06:1. |

| | | | | |
|---|-------------|---|--|---|
| <p>Inequalities in suicide mortality between indigenous and non-indigenous people in the state of Amazonas, Brazil.</p> | <p>2013</p> | <p>To analyze the rates and some characteristics of suicide mortality among indigenous and non-indigenous people in Amazonas.</p> | <p>Retrospective cohort study, in which death data were obtained from the Mortality Information System and population data from the Brazilian Institute of Geography and Statistics. All records of suicide in the period 2006-2010 and annual geometric interpolation to estimate subpopulations.</p> | <p>There were 688 suicides in Amazonas, of which 19.0% were indigenous. The adjusted suicide mortality rate (TAMS) in indigenous people, of 18.4/100 thousand, was 4.4 times higher than that of non-indigenous people. The TAMS in indigenous people increased 1.6 times in 2010 compared to 2006. In the municipalities of Tabatinga and São Gabriel da Cachoeira, the TAMS were very high, 75.8 and 41.9/100 thousand, respectively.</p> |
| <p>Mortality trends from intentional self-harm in Brazil from 2004 to 2014.</p> | <p>2017</p> | <p>To analyze mortality trends from intentional self-harm according to age groups and regions of Brazil.</p> | <p>This is an epidemiological study, with an ecological time series design, using data from the Mortality Information System related to deaths due to intentional self-harm that occurred between 2004 and 2014.</p> | <p>The trend analysis indicated an increase in mortality coefficients, with the Brazilian curve accentuating the increase ($R^2 = 0.678$). The Southeast region showed the greatest straight-line slope ($R^2 = 0.960$), even higher than the trend observed in Brazil. Mortality coefficients according to age groups showed an increasing trend for the 10 to 19-year-old age group ($R^2 = 0.429$). In the age group of 20 to 29 years in the period analyzed, there was no growth trend. However, there was an increase in the number of deaths from 2010 onwards. This group was evaluated in the period 2010-2014, thus demonstrating an increasing trend for this range ($R^2 = 0.927$).</p> |

TABLE II. SUMMARY OF ARTICLES

Source: Prepared by the authors, 2023.

period from 2010 to 2019, with exponential growth from 9,448 to 13,520, these data are corroborated by the Epidemiological Bulletin of the Health Surveillance Secretariat released in 2021.

Between 2010 and 2019, 112,230 deaths by suicide occurred in Brazil, with a 43% increase in the annual number of deaths, from 9,454 in 2010, to 13,523 in 2019. Analysis of adjusted mortality rates in the period demonstrated an increase in the risk of death by suicide in all regions of Brazil. It was observed that suicide was more frequent in adolescents between 15 and 19 years old (84.4%), males (67.9%) and black/brown people (56.1%). The most frequently used means of aggression was hanging (76.1%) and the home is the place with the highest occurrence of deaths (63.4%). Regarding

suicide mortality rates, there was an increase in these rates between 2016 and 2019, from 2.74 per 100 thousand to 3.90 per 100 thousand adolescents. In 2020, the year the Covid-19 pandemic began in Brazil, the rate was 3.82, and in 2021 it was 4.02 per 100,000. (Epidemiological bulletin number: 33, 2021).

The greater risk of death in men and the increase in suicide rates among adolescents stand out, reports of self-inflicted injuries were from white people, females, with a low level of education and aged between 15 and 29 years, being the residence is the main place of occurrence, and poisoning is the most commonly used means of attempting suicide. (Epidemiological Bulletin of the Health Surveillance Secretariat, 2021).

The results of this bulletin reinforce that suicide is a growing public health problem in Brazil, especially among younger age groups. Therefore, the need to train health care networks for reception and mental health care in childhood and adolescence is highlighted, as well as the need for education and socio-emotional support actions that favor the construction of resilience characteristics and the skills to deal with frustrations and adversities.

SYSTEMATIC REVIEW

The source of data collection on the topic was the LILACS platforms, with 119 articles and SCIELO, with 44 articles totaling 163 articles found whose summaries and titles were read and from which duplicates were excluded, those that were not in Portuguese, totaling 54 in English and 02 articles in Spanish, texts repeated on both platforms and those that fell outside the scope of the work were also excluded, with 06 texts that were part of the study being selected.

After this first reading, 157 texts were excluded due to duplication, as they did not meet the scope of the review, and the studies that resulted in analyzes of the effects of the pandemic since the study would be too broad and would deviate from the objectives of the work. Subsequently, the 06 selected articles were organized in a Microsoft Excel® table and read in full. The final corpus was composed of 6 articles, systematized according to topics of interest: theme, year of publication, objective, methods and results.

After reading the articles in full, it was possible to create a table with the main points found in the studies and summarized in the table below:

There is a growing trend in deaths due to self-inflicted injuries in males, prevalent in the adolescent age range and in indigenous populations, without taking

into consideration, the underreporting that generally occurs due to prejudice and lack of clarification on the phenomenon of suicide, in addition to failures in notifications in the health system. According to the Violence Map, the participation of suicide in total deaths of children and adolescents increased from 0.2% in 1980 to 1% in 2013, in Brazil. During this period, it was the second fastest growing cause, behind only homicides. (Cicogna et al, 2019 :6)

Brazil took an important step by formulating Law Number 13,819 (2019), which establishes the National Policy for the Prevention of Self-Mutilation and Suicide, bringing among its objectives: the guarantee of psychosocial care for people with a history of suicide ideation and attempts, as well as self-harm; the need to coordinate different devices within the intersectoral network to achieve suicide prevention; and the need for ongoing training for health professionals and managers (Law Number: 13,819, 2019).

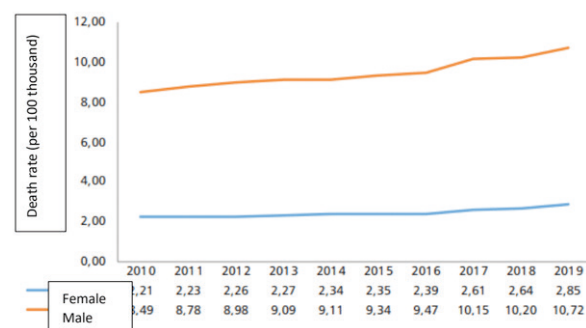
The achievement of these objectives must involve articulation and listening to different practices and different knowledge, prioritizing the knowledge of the user and their social support network. For Cassorla (2017), scientific advances must try to understand man in his sociocultural and psychological aspects, without falling into reductionism.

As a rule, all users who attempt suicide and pass through the urgent-emergency hospital, upon discharge, are referred to the health network: The Psychosocial Care Center (CAPS), also known as the Health Reference Center Mental Health (CERSAM), Psychiatric Hospital, or Health Center. The user is taken directly to the aforementioned mental health service with the family member, in the hospital ambulance or on transport in their city. This action aims to provide immediate reception after hospital discharge, in an attempt to encourage user adherence to treatment. (Psic.

Teor, Brasília, 2022)

In Amazonas, according to the Public Security Secretariat, in 2019, 124 people took their own lives and, in the first half of 2020, the number already exceeded 60. In Manaus, in 2020, there were 119 cases of suicide, an increase 13% compared to the previous year. In 2021, between the months of January and April, 46 cases were registered in the capital. In total, between 2019 and 2021, 270 suicides were recorded in Manaus and 79 deaths in the interior, totaling 349 cases in Amazonas in almost three years. (Public Security Secretariat, 2021).de 201 2

Between 2010 and 2019, 112,230 deaths by suicide occurred in Brazil, with a 43% increase in the annual number of deaths, from 9,454 in 2010, to 13,523 in 2019. Of these cases, Men had a 3.8 times higher risk of death by suicide than women. Among men, the suicide mortality rate in 2019 was 10.7 per 100,000, while among women this value was 2.9. When analyzing the evolution of suicide mortality according to sex, an increase in rates for both sexes was observed, with the rate ratio between the sexes being maintained in the period. Comparing the years 2010 and 2019, there was a 29% increase in suicide rates among women, and a 26% increase in rates among men.



GRAPH II. EVOLUTION OF SUICIDE MORTALITY RATES, ACCORDING TO SEX. BRAZIL, 2010 TO 2019.

Source: Ministry of Health - Mortality Information System (SIM).

The results show suicide as a characteristic of the male gender, and are in line with the literature, which is also seen in studies already carried out in national and international parameters. In general, male mortality from suicide exceeds that of females.

Historically, men assumed the role of provider and a role in the family hierarchy. However, over time, this role became more flexible depending on the sociocultural context. The current standard of masculinity, in which men are socialized, contributes to them being, at the same time, victims and main perpetrators of different expressions of social violence and, mainly, lethal self-violence. (Clóvis C.C., 2014).

Meneghel et al (2012, p.1984) in their study points out that “The marked difference in suicide rates between the sexes has influenced the debate about the importance of gender in the occurrence of this event”.

Marín-León and Barros (2003) observe that “suicide in males accounts for a higher proportion of general mortality (0.3%-0.8%) than in females (0-0.3%). In males, they represent between 2.0% and 5.2% of external causes (average for the period 3.1%). Among females, this proportion showed greater fluctuations, between 0.9% and 6.8% (average for the period 3.9%)” (p.360).

Analysis of the evolution of these rates according to age group demonstrated an increase in the incidence of suicides in all age groups. In this aspect, a pronounced increase in adolescent mortality rates stands out, which increased by 81% in the period, going from 606 deaths and a rate of 3.5 deaths per 100 thousand inhabitants, to 1,022 deaths, and a rate of 6.4 suicides for every 100,000 adolescents.

Despite the lower rates in relation to other age groups, the sustained increase in deaths by suicide in children under 14 years of age also stands out. Between 2010 and 2013 there

was a 113% increase in the suicide mortality rate in this age group, from 104 deaths and a rate of 0.3 per 100 thousand, to 191 deaths, and a rate of 0.7 per 100 thousand inhabitants.

Research shows the presence of factors considered stressors in the context of each person who attempts or commits suicide, and confirms the prevalence among adolescents and young people. Schnitman et al state that:

“Stressful factors in the life history of people who attempt or commit suicide, mainly adolescents and young people, converge in pointing out a high incidence of adverse experiences during emotional development, including a childhood marked by the presence of indicators of emotional neglect, rejection in childhood and adolescence, physical, verbal and sexual violence within the family. Severe relational conflicts and recent separations were also identified as precipitating factors for suicide attempts” (2010, p.47).

Generally, these factors are also related to existential questions, especially at this stage of life where the personality is still being formed, sexuality is still unfolding, questions about the future are still determining insecurities and affections, directly interfering in the formation of intra and extra relationships. relatives. These are decisive interferences when associated with illness processes, especially those related to mental health, very present in cases of self-inflicted injuries that lead to death and, in many cases, such an outcome was not the intention of those who caused it, but the escape from a state unintelligible, unrestrained, a scream that wants to free the soul from a prison without bars.

A last and desperate movement to protect a freedom, that of being able to be in openness, even if it is diving towards the infinite horizon of the sea, or into space, in a last attempt at freedom, of acceptance,

from a gesture that keeps a sense of home, of passage, even if it is to death. The soothing peace of not having to live. (Silva and Santana apud Dutra, 2021:41).

The excerpt cited by Silva and Santana brought the act of suicide in a poetic way where it shows that the attempt to take one's life is nothing more than a search to free the body and mind from unmaterialized suffering because psychological suffering cannot be explained, because each person feels in a unique way and peace is also sought by each person individually.

FINAL CONSIDERATIONS

The work shows that between research carried out ten years ago and current data, little has changed, and the numbers are growing without measure, especially after the covid-19 pandemic that effervesced, triggered and worsened pre-existing mental health problems.

It also reinforces the pressing need for investments in public policies and spaces that provide welcome, listening and security to the population, in addition to research with more robust methodologies to investigate the phenomenon in question, since it has been growing more and more every year.

It launches the challenge that such policies must be focused on the person's integral health and not on the medicalization of suffering, reminding us that mental health is as important as the biological factors that are often emerging as a result of psychological suffering. These data need to show us how much mental health has been neglected by health policies in daily professional practice and that it is as central as other morbidities, just look and provide larger and more human listening spaces.

REFERENCES

- MACHADO, Daiane Borges; SANTOS, Darci Neves dos. Suicídio no Brasil, de 2000 a 2012. Bahia: Universidade Federal da Bahia (UFBA), 2015
- MATA, K. C. R., Daltro, M. R., & Ponde, M. P. (2020). **Perfil epidemiológico de mortalidade por suicídio no Brasil entre 2006 e 2015**. Perfil epidemiológico de suicídio no Brasil. São Paulo: Voz Ativa, 2021. Disponível em: <https://vozativa.inf.br/2021/09/14/perfil-epidemiologico-do-suicidio-no-brasil/>. Acesso em: 10 jan. 2022.
- Souza MLP, Orellana JDY. Desigualdades na mortalidade por suicídio entre indígenas e não indígenas no estado do Amazonas, Brasil. J Bras Psiquiatr. 2013;62(4):245–252. doi: 10.1590/S0047-20852013000400001.
- ORGANIZAÇÃO MUNDIAL DA SAÚDE (2000). **Prevenção do Suicídio**: Um manual para profissionais da Saúde em atenção primária. Genebra.
- BERINGUEL, B. M. et al. **Mortalidade por suicídio no Estado de Pernambuco, Brasil (1996-2015)**. Revista Brasileira de Enfermagem, v. 73, p. e20180270, 15 maio 2020.
- SILVA D. A, Marcolan J.F. **Tendência da taxa de mortalidade por suicídio no Brasil**. Rev baiana enferm. 2022;36:e45174.
- MATA, K. C. R., Daltro, M. R., & Ponde, M. P. (2020). **Perfil epidemiológico de mortalidade por suicídio no Brasil entre 2006 e 2015**. Revista Psicologia, Diversidade e Saúde, 9(1), 74-87. doi: 10.17267/2317-3394rpds.v9i1.2842.
- DANIELLY C. A. P. Emerson S. S. Eliane I. **Análise dos padrões espaciais e caracterização dos suicídios no Brasil entre 1990 e 2015**, ad. Saúde Pública 2020; 36(4):e00092819 doi: 10.1590/0102-311X00092819.
- BRASIL. Ministério da Saúde. Secretaria de Vigilância em Saúde. Mortalidade por suicídio e notificações de lesões autoprovocadas no Brasil. **Boletim Epidemiológico**, Brasília, v. 52, n. 33, set. 2021. BRASIL. Ministério da Saúde.