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REVIEW

Suicide trends in Brazil and the issue of adolescence: A scoping review

A tendência do suicídio no Brasil e a questão da adolescência: uma revisão de escopo

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ABSTRACT This paper aims to describe the trend in suicide mortality among the general population and adolescents in Brazil over the past three decades. The article uses a scoping review methodology to consolidate evidence from multiple studies and inform public policy actions. A literature review finds an increase in suicide mortality over the past three decades in the country. Studies on suicide in the general population also indicate a growing public health problem, influenced by macroeconomic factors and behavioral changes, such as social media use and substance abuse. Risk factors such as access to firearms in the home, conflicting parent-child relationships, homelessness, social isolation, and exposure to stressful events significantly contribute to the increase in adolescent suicide deaths. The Brazilian context highlights the need to prioritize suicide prevention on the health policy agenda. According to the reviewed literature, government initiatives should include expanding social protection, providing therapeutic listening spaces, and cooperating with civil society. Suicide prevention strategies should also include public policies targeting high-risk groups.

KEYWORDS Adolescents. Suicide. Trend. Mortality. Brazil.

RESUMO *O trabalho teve como objetivo descrever a tendência da mortalidade por suicídio na população geral e de adolescentes no Brasil nas últimas três décadas. O artigo adota a metodologia da revisão de escopo para consolidar as evidências de vários estudos e informar as ações de políticas públicas. A revisão de literatura constata o crescimento da mortalidade por suicídio nas últimas três décadas no País. Os estudos sobre suicídio na população geral indicam também um problema crescente de saúde pública, influenciado por fatores macroeconômicos e mudanças comportamentais, como uso de mídia social e abuso de substâncias. Fatores de risco como acesso a armas de fogo em casa, relacionamentos conflitantes entre pais e filhos, falta de moradia, isolamento social e exposição a eventos estressantes contribuem significativamente para o crescimento das mortes por suicídio em adolescentes. O contexto brasileiro evidencia a necessidade de priorizar a prevenção do suicídio na agenda da política de saúde. De acordo com a literatura revisada, iniciativas governamentais devem contemplar a expansão da proteção social, a oferta de espaços de escuta terapêutica e a cooperação com a sociedade civil. Estratégias de prevenção do suicídio também devem incluir as políticas públicas direcionadas a grupos de alto risco.*

PALAVRAS-CHAVE *Adolescentes. Suicídio. Tendência. Mortalidade. Brasil.*

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InIntroduction

The objective of this scoping review is to describe and analyze the trend of overall and adolescent suicide mortality in Brazil over the last three decades, as evidenced by the literature. Suicide has been universally defined as death resulting from intentional self-harming behavior. Intention can be explicitly stated by the individual or inferred through expert analysis[1].

According to the World Health Organization, more than 700,000 people die by suicide annually worldwide, making it the fourth leading cause of death among adolescents and young people aged 15 to 29, after traffic accidents, tuberculosis, and interpersonal violence. The majority of adolescents who commit suicide (88%) are from low- and middle-income countries[2]. In Brazil, suicide is a significant cause of death among the adolescent population (15 to 19 years old)[3].

Contemporary literature has highlighted the persistence of conditions of economic inequality, identity, isolation, and social mortification as determining factors in suicide in different societies[4]. In other words, suicide is subject to the same social constraints that condition other human actions and should not be treated as a pathological category, but understood as the result of a complex set of cultural, social, and economic factors[5].

Considering this scenario, the scientific production on the temporal dynamics of suicide in Brazil is reviewed in this work with the aim of contributing to public policy action on the subject. As Baldaçara and colleagues[6] point out, the consolidation of data from several articles can help improve public health action.

There is no doubt that, after a long period of analysis of the subject under the restrictive bias of research on violence, the field of public health faces the challenge of revisiting the complexity of issues related to suicide, highlighted since the end of the 19th century by Emile Durkheim[7] and his followers and critics.

In his pioneering work from the late 19th century, Durkheim argued that voluntary death, traditionally considered by philosophy, ethics, and psychiatry as an individual act or event, should be considered a 'social fact' and analyzed by the variation in mortality rates over time and in different societies[7]. The central hypothesis in the book 'Suicide' is that the nature of individuals' connections with social institutions conditions the likelihood of this event occurring: individuals with strong social ties are less likely to commit it. Conversely, individuals in a state of anomie (socially isolated) are more likely to commit what he termed egoistic suicide[7].

Durkheim further argued that suicide prevention can be achieved through the social regulation of anomie. Societies that have managed to regulate individual expectations of happiness have lower suicide rates than those in which individuals believe in the unlimited possibility of success[7]. In short, as Horwitz points out, for Durkheim, the low prevalence of suicide can be observed in societies that mitigate and regulate individual expectations of satisfaction in the sphere of social life[8].

Tomasi highlights that Durkheim used the description of the discrepant prevalence between regions, social status, and beliefs to demolish the supposed relationships between suicide and psychopathological states, alcoholism, or genetic inheritance. According to Tomasi[9], although Durkheim went too far in his critical effort regarding the influence of mental disorder, he managed to demonstrate that suicide is associated with general social conditions. Furthermore, his uncompromising critique of the alleged non-social causes of suicide—the physical environment and, in particular, heredity—inaugurated the approach of the social determinants of health events[9].

Echoing the ideas of Émile Durkheim today, social scientists Anne Case and Angus Deaton[10] reiterate, based on a comprehensive and complex study of the unexpected increase in suicide mortality among white workers in the United States of America over the last three

decades, that this event occurs when society fails to provide, for a portion of its members, references of dignity and meaning for life.

Still, Mueller[11] identifies some limitations in Durkheim's suicide theory. The most notable is the inadequacy of the ecological approach to explain the individual response to macrosocial constraints. For the author, the ecological approach is not robust enough to identify how pressures in the social sphere (integration and regulation) can determine behavioral responses at the individual level (suicide). For Mueller[11], the causal link between the macrosocial level and individual behavior remains a methodological challenge not yet fully overcome in social research.

There is no doubt, however, that reflection on Durkheim's work can offer answers for public managers and civil society in the face of the continuous growth of suicide events, beyond the simplistic conclusions about the conjunctural influence of economic crises or endemic violence in contemporary society[9,10].

Material and methods

To answer the research objectives, the scoping review model was adopted to aggregate articles published between January 2000 and December 2024 on contemporary suicide trends in Brazil. The scoping review model offers an overview of a research topic, based on existing evidence, without the concern of evaluating the internal validity of the methodological choice of each included article[12]. The procedures adopted in carrying out the scoping review on contemporary suicide trends in the general population and adolescents in Brazil followed the precise indications of Tricco et al.: identifying the work in the title as a scoping review, explicitly stating the objective, presenting the problematization of the topic and the motivation for the review, explicitly stating the research question for the literature review, informing the sources of evidence and eligibility criteria, presenting a synthesis of results in light of the research question and the review of selected works, and making policy recommendations and pointing to new investigations and public policy interventions on the topic[13].

Based on these procedures, the search was guided by time parameters and adherence to the central concern of the literature review: to identify the trend of overall mortality due to suicide and mortality in the adolescent population due to suicide in Brazil according to quantitative studies with an ecological approach using time series. In this work, time series are defined as sequences of quantitative data relating to specific moments and studied according to their distribution over time. This analysis methodology is used for different purposes and by diverse fields of knowledge[14].

Scoping review, by questioning the available scientific knowledge, allows for the strengthening of arguments in favor of public policy actions[15,16]. It identifies the origin, scope, and nature of available publications, lists gaps, and opens space for new investigations[17]. Considering the analysis of the Brazilian panorama, the SciELO, PubMed, and LILACS repositories were chosen as sources for the scoping review. In all three repositories, full articles, in English or Portuguese, were selected, using the keywords: "Suicide", "Brazil", "Trend", and "Mortality".

To conduct the search, the following article attributes were considered as inclusion criteria: 1) it addresses the temporal trend of suicide at the national level (and not regional, state, or municipal) between two points in time; 2) it focuses on age and gender data, and not specific social groups, such as the indigenous population; 3) it was published by an author from any field of knowledge; 4) it was published with an abstract in English; 5) it is the result of ecological studies with quantitative time-series data; 6) it uses multiple sources of information, in addition to the Mortality Information System (SIM) of DataSUS of the Ministry of Health (MS); 7) it used the codes X66-X84 (intentionally self-inflicted injuries) and Y87.0 (sequelae of an intentionally

self-inflicted injury) from the International Classification of Diseases, tenth version (ICD-10); and 8) was published between 2000 and 2024. Articles based on cohort studies, which analyzed the average variation in overall or adolescent mortality between two points in time, or which measured the specific effects of the COVID-19 pandemic on suicide deaths in Brazil were excluded from the review.

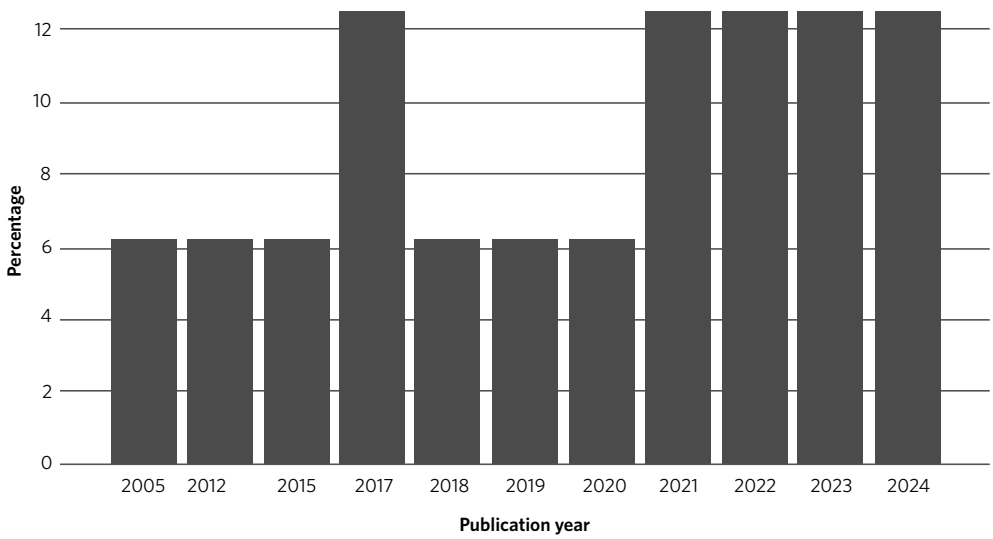
Results

The final bibliographic search, after excluding redundancies, resulted in a total of 71 articles in the three repositories that address the trend of suicide in Brazil after 2000. It is worth remembering that important national journals have their publications available in the three repositories chosen for this scoping review (SciELO, PubMed, and LILACS). After a complete reading of the English abstracts and methodologies, 15 articles were included that met the 8 eligibility criteria, by directly analyzing and reporting the trend in the variation of the overall suicide mortality rate, and 6 articles that address the subject in the adolescent population (10-19 years), using Brazil after 2000 as the unit of analysis.

In this process, the high proportion of articles (87%) on mortality trends in the population that show a positive variation in the overall suicide mortality rate over the last three decades in Brazil is initially noteworthy. This significant majority indicates a change from the idea of stability or decline in the suicide mortality rate in the country, disseminated with enormous success by the pioneering article by Yunes and colleagues in 1999[18]. It is surprising, as shown below, that in recent years, only two articles listed in the search demonstrate that the overall suicide mortality rate has declined over the last three decades in Brazil.

Graph 1 shows that most articles addressing suicide trends between two points in time in the general Brazilian population were published after 2019, especially after 2021 (the last year of the COVID-19 pandemic).

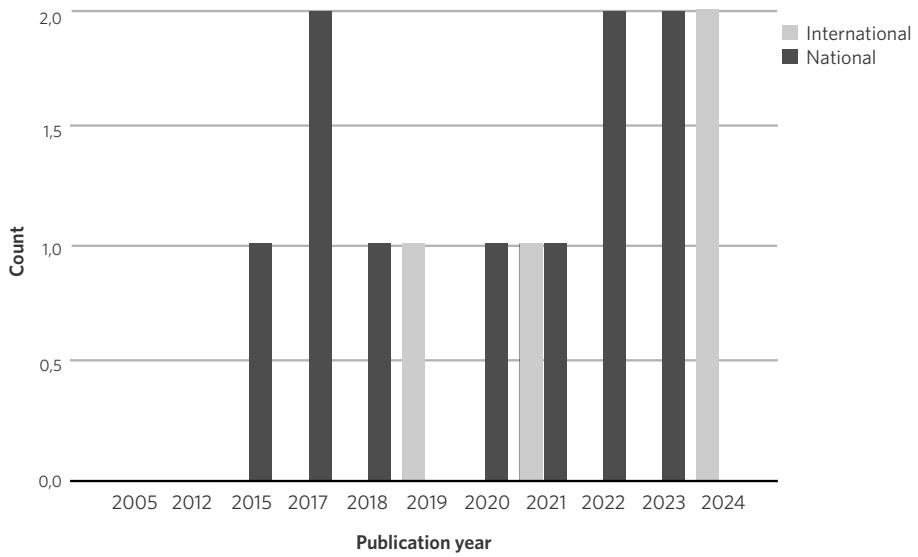
Graph 1. Annual distribution of articles, in the PubMed, SciELO and LILACS databases, on trends in overall suicide mortality in Brazil – 2005-2024 (n = 17)



Source: Author's own elaboration.

The pandemic period saw a notable acceleration in the publication of studies on the topic of suicide mortality in Brazil and promoted an increase in the presence of articles by Brazilian authors in high-impact international journals, as shown in *graph 2*. During this period, the topic of suicide in Brazil clearly returned to the agenda of interest of large multinational scientific publications, particularly from 2021 onwards..

Graph 2. Frequency of articles in the PubMed, SciELO, and LILACS databases on the trend of overall suicide mortality in Brazil by journal nationality and year – 2005-2024 (n = 17)



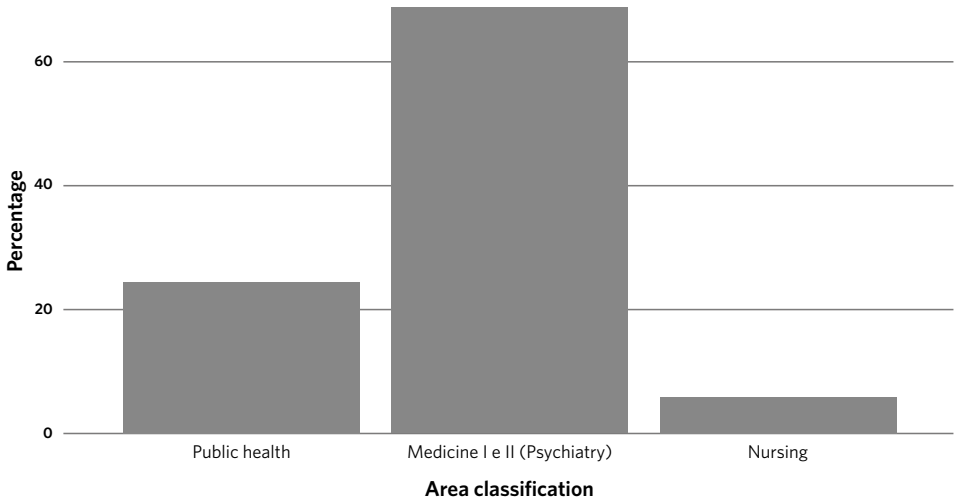
Source: Author's own elaboration.

In this context, the extremely high concentration of publications on suicide trends in Brazil within the biomedical field – medical degrees I and II (psychiatry) – and in public health, as shown in *graph 3*, is striking. Paradoxically, no publications from the social sciences and humanities on this topic were identified in the search conducted in non-biomedical repositories, such as SciELO.

The paradox is obviously due to the observation of the scarce influence of Durkheim's sociological agenda, with its quantitative methodological bias, on the production of Brazilian social and human sciences compared to the international relevance of the design adopted by the author of 'Suicide'[4]. With regard to the field of public health, it can be considered that the pursuit of methodological triangulation

proposed by Minayo and collaborators[19] for research on suicide in the field, with a strong qualitative orientation, may have influenced the scarcity of scientific production with statistical methods by social scientists on the subject in Brazil.

Graph 3. Distribution by CAPES area of knowledge of publications on the trend of general and adolescent mortality due to suicide in Brazil, in the PubMed, SciELO and LILACS databases, between 2005 and 2024 (n = 16)



Source: Author's own elaboration.

Suicide in the general population

Table 1 shows the diversity of methodological approaches for analyzing the variation in the overall suicide mortality rate between two points in time in Brazil. Unexpectedly, the discrepancies in the percentage variations are notable when considering the proximity of the periods studied by the articles. The works of Bonadiman et al.[20] and Malta et al[21]. are particularly noteworthy for their argument that the overall suicide mortality rate in the country has been declining in the first decades of the 21st century. Bonadiman et al.[20] state that the standardized overall suicide mortality decreased by 27% between 2000 and 2012. Malta et al.[21] find a reduction from 7.3 to 6.1 deaths per 100,000 inhabitants between 1990 and 2019. Both articles share the use of the Global Burden of Disease (GBD) methodology. For decades, international literature has drawn attention to the non-trivial difficulties of CGD methodology estimates when confronted with nationally produced epidemiological and demographic data[22]. It should be noted, however, that the article by Soares Filho and colleagues[23] offers a relevant contribution to the use of the CGD model to estimate informational losses due to failures in data collection from the SIM, even though they maintain that suicide mortality in Brazil is increasing.

Indeed, the bibliographic research identified two articles with historical series dating back to the 1980s that already pointed to an increase in the overall suicide mortality rate during that period and in the 1990s and 2000s. The article by Mello-Santos and colleagues[24] demonstrates that, between 1980 and 2000, this growth was on the order of 21%. Men

committed suicide 2.3 to 4 times more often than women, with adults over 65 years of age showing the highest rates of death resulting from intentional self-harm. Minayo et al.[25] similarly identify the progressive increase in deaths by suicide, especially among males of all ages, whose rates evolved from 6.2/100,000 in 1980 to 9.3/100,000 in 2006. The mortality rate of Brazilian women, however, showed a residual decrease from 2.6/100,000 in 1980 to 2.3/100,000 in 2006[25].

Based on more recent time series, the text by Palma and colleagues[26], using the regression model based on the Poisson distribution, also reveals that, between the years 2000 and 2017, the overall suicide mortality rate increased by 51%, from 3.5 to 5.3 per 100,000 inhabitants.

The article by Alves and co-authors[27] converges with the conclusions of Palma and colleagues, although the reported variation is more parsimonious: 46%. It also reports that, from 2011 to 2022, 147,698 deaths resulting from intentional self-harming behavior were recorded in Brazil. Considering only the year 2022, adult males (25-59 years) and elderly people (> 60 years) were the age groups most affected by suicide, reaching rates of 9.59 and 8.60/100,000 respectively. From a longitudinal perspective, between 2011 and 2022, the indigenous population exhibited the highest suicide rates (16.58/100,000), and young people showed the greatest percentage increase in that rate[27].

The article by Cruz and colleagues[28] also identifies the increase in the overall suicide rate between 2011 and 2019 when analyzing the Yellow September Program (PSA) implemented in 2015 in Brazil. According to the authors, the results of the PSA were ineffective in reducing suicide deaths due to the absence of multisectoral actions, professional training, and expansion of the care network[28].

With this same concern, McDonald and colleagues[29] argue that, at first glance, the total age-standardized suicide rate in Brazil in 2016 would be low compared to the global average rate (6.0 in Brazil versus 11.2 per 100,000). However, when the frequency of suicide is added to deaths of undetermined intent (considered by some researchers as a hidden source of suicides), the Brazilian rate increases to 10.3 per 100,000, considerably closer to the global average. The authors argue that the suicide rate increased from 2000 to 2017[29].

According to *table 1*, the median positive change in suicide mortality in the general Brazilian population, calculated from the combination of the aforementioned estimates with the changes reported by the studies of Abuabara et al.[30], Duarte et al.[31], Figueiredo[32], Machado and Santos[33], Martini et al.[34], Pinto[35], Ribeiro and Moreira[36] and Mejía and Pivatto[37], was expressively high: 27.5%.

Table 1. Variation in the overall suicide mortality rate according to articles with complete information – (n = 15)

Authorship	Analysis period	Initial mortality rate	Final mortality rate	Variation (%)	Analysis model
Malta et al.[21]	1990-2019	7.3	6.07	- 8	Global Burden of Disease (GBD) Model
Mejía, Pivatto[37]	2010-2021	4.8	6.7	39	Descriptive analyses of suicide data and regression models with Poisson distribution.
Alves et al.[27]	2011-2022	5.0	7.3	46	Joinpoint regression analysis
Cruz et al.[28]	2011-2019	5.0	6.41	28	Time series regression analysis
Pinto et al.*[35]	2004-2014	4.6	5.7	24	Time series regression analysis

Table 1. Variation in the overall suicide mortality rate according to articles with complete information – (n = 15)

Authorship	Analysis period	Initial mortality rate	Final mortality rate	Variation (%)	Analysis model
Figueiredo et al.**[32]	2012-2017	7.1	7.84	10	Regression models with Poisson distribution.
Palma, Santos, Ignotti[26]	2000-2017	3.5	5.3	51	Regression models with Poisson distribution.
Mc Donald et al.*[29]	2000-2017	4.6	6.5	42	Joinpoint regression analysis
Duarte***[31]	2000-2015	5.8	7.2	24	Simple linear regression
Martini et al.[34]	2000-2016	3.8	5.4	42	Descriptive analyses of suicide data
Ribeiro, Moreira[36]	1996-2015	4.3	5.47	17	Descriptive analyses of suicide data
Abuabara et al.[30]	2000-2013	4.7	5.7	21	Time series regression analysis
Bonadiman et al.[20]	2000-2012	7.2	5.7	-21,7	Global Burden of Disease (GBD) Model
Machado, Santos[33]	2000-2012	4.9	6.2	26	Descriptive analyses of suicide data
Minayo et al.*[25]	1980-2006	4.4	5.8	32	Time series analysis and trend analysis using polynomial regression
Mello-Santos et al.[24]	1980-2000	3.3	4.0	21	Descriptive analyses of suicide data

Source: Author's own elaboration.

*Calculation for the population over 10 years old; **Calculation for the population over 25 years old; ***Calculation for the population aged 20-64 years.

Suicide among adolescents

Regarding suicide among adolescents (10-19 years old) in recent decades, *table 2* shows that the topic was specifically addressed by six studies during the bibliographic search period. Similar to the literature on the general population, some discrepancies are also found concerning conclusions about the magnitude of the variation in the suicide mortality rate within this age group. However, no study states that suicide mortality among adolescents is stable or declining. The Brazilian situation is aligned with the international trend[38].

Indeed, suicide among adolescents is a critical public health problem, with increasing rates of suicidal behavior observed in recent years. International research indicates that factors such as social media use, psychiatric disorders, and substance abuse contribute significantly to the prevalence of suicides in this age group[39].

In this scenario, Jaen-Varas and co-authors[42] identify a 13% variation in the mortality rate in Brazil in the 10-19 age group between 2006 and 2015. However, if the six major Brazilian cities (Porto Alegre, Recife, Salvador, Belo Horizonte, São Paulo, and Rio de Janeiro), the particular focus of the study, are considered, the rate rises to 24%. Another finding of the article, in line with international evidence, is the association between indicators of inequality and unemployment and high suicide rates among adolescents[42].

Cicogna and colleagues[43] argue that there has been a significant increase in suicide

mortality among adolescents in Brazil, particularly in the male population. This increase was 47% between 2000 and 2015, data which, according to the authors, may be associated with the increased institutional capacity to produce epidemiological information. In this sense, they warn of the possibility that the improvement in the coverage of the Mortality Information System (SIM), mainly in the North and Northeast regions, may have interfered with the data collected, causing an increase in notifications, and not in the real number of deaths resulting from intentional self-harm behavior in the period they analyze[43].

Pinto and co-authors[35] highlight the 19% growth, between 2004 and 2012, in suicide mortality rates in Brazil and in all regions. They also emphasize that the 10-19 age group was the most vulnerable during this period, followed by the 20-59 age group and those over 60 years old[35].

Fernandes and colleagues[44] also defend the idea of the accelerated 32% expansion of suicide among adolescents between 1997 and 2016. The article demonstrates the discrepant patterns of suicide mortality according to sex, macro-regions, Federative Units (UF) and locations where the event occurred. Mortality among adolescents increased in males, in the age groups of 10 to 14 years and 15 to 19 years, in the North and Northeast regions and in the UFs of Alagoas, Amazonas, Bahia, Ceará, Maranhão, Mato Grosso do Sul, Minas Gerais, Pará, Paraíba, Piauí, Sergipe and Tocantins. There was an increase in the proportion of deaths at home and in non-hospital health establishments[44].

The data collected by Mejía and Pivatto[37] demonstrate, through descriptive analysis of extraordinary quality, that the suicide mortality rate in the 10-19 year old population showed the greatest variation (77%) between 2010 and 2021 compared to all other age groups.

Finally, the article by Corassa and colleagues[45] confirms that the variation in suicide mortality between 2000 and 2022 was equally significant (120%). The text also shows that the largest percentage increase occurred in the 10-14 year old age group (140%). It particularly highlights the 176% increase in suicide rates among women in this age group, varying from 0.61 in 2000 to 1.68 deaths per 100,000 girls in 2022[45]. Evidencing a scenario of positive variation in the mortality rate in the country, the text thus identifies the alarming expansion of suicide in the female adolescent group and the increasing use of more lethal means[45]. In the case of the adolescent population, the article demonstrates that hanging was the most frequent method (65.9% of total deaths), followed by poisoning (15.7%) and firearms (10.8%). Among men, hanging was responsible for 70.5% of suicide deaths, followed by firearms (12.3%), while among women, hanging was responsible for 52.7% of deaths, followed by poisoning (30.8%)[45].

Table 2. Variation in the suicide mortality rate among adolescents (10-19 years old) according to the selected articles – (n = 6)

Authorship	Analysis period	Initial mortality rate	Final mortality rate	Variation (%)	Analysis model
Jaen-Varas et al.[42]	2006-2015	2.34	2.64	13	Descriptive analyses of suicide data
Pinto et al.[35]	2004-2014	2.0	2.38	19	Time series regression analysis
Cicogna et al.[43]	2000-2015	1.71	2.51	47	Simple linear regression
Fernandes et al.[44]	1997-2016	1.98	2.61	32	Prais-Winsten regression

Table 2. Variation in the suicide mortality rate among adolescents (10-19 years old) according to the selected articles – (n = 6)

Authorship	Analysis period	Initial mortality rate	Final mortality rate	Variation (%)	Analysis model
Mejía, Pivatto[37]	2010-2021	2.2	3.9	77	Descriptive analyses of suicide data
Corassa et al.[45]	2000-2022	2.1	4.62	120	JointPoint regression analysis and redistribution of causes *garbage*

Source: Author's own elaboration.

Conclusions and recommendations

Suicide in contemporary society involves a multifaceted set of factors that cannot be overcome or mitigated by simple solutions. The pattern of complexity and resilience in the dynamics of suicide poses extraordinary challenges to public health policy managers and social protection programs.

The literature reviewed in this scoping review points, on the one hand, to the impact of changes in the pattern of wealth accumulation in contemporary capitalist society, spearheaded by the neoliberal agenda and the fiscal austerity agenda, which have resulted in the reduction of the State's functions in promoting Social Welfare and, in advanced societies, in irreversible deindustrialization. The combination of the neoliberal agenda with accelerated integration into the project of capital globalization has destroyed the way of life, especially of the working class, in both advanced and peripheral economies, leading to an escalation of deaths from despair. In this context, the significant increase in suicide mortality is one of the main indicators of the effect of macroeconomic changes[10].

Contemporary studies, on the other hand, have also drawn attention to the mortifying effects of moral harassment, structural inequality of class, gender, and ethnic/racial categorization, which were left out of Durkheim's pioneering reflection. Contemporary studies in sociology and mental health reiterate, in this sense, the importance of social integration as a crucial variable of individual well-being. For example, people with more frequent contact with family, friends, and neighbors, and involved with voluntary organizations, civic organizations, and clubs, are less prone to suicide than those who live isolated due to new modes of sociability[11].

The complexity of social determinants makes it especially relevant to understand the dynamics of the recent suicide trend in the general population in Brazil according to scientific production with time series analysis. In this review of the Brazilian case, the lack of consensus in the literature on the magnitude of the expansion of the general and adolescent mortality rate due to suicide in Brazil should be highlighted, ratifying what Guimarães and colleagues affirm[46]. This discrepancy in quantification, due to the notable methodological influence of studies based on CGD, may have weakened the motivation of managers to include the subject on the priority agenda of the Unified Health System (SUS).

In this context, the Ministry of Health's recognition of the continuous increase in the suicide rate among adolescents (10-19 years old) between 2010 and 2021 should be highlighted[3]. The Ministry of Health also underlines striking differences between adult men and women. According to vital statistics from

DataSUS, in the male group, the suicide mortality rate increases progressively with age, reaching its peak among elderly people over 70 years old. In turn, according to the Ministry of Health, in women, the risk is higher among adolescents aged 15 to 19, followed by stabilization and decline in the mortality rate as they advance in age[3].

The Ministry of Health's position is a clear warning that Brazilian society has failed to provide a framework for dignified and meaningful lives for some of its members, leading them to suicide, as indicated by contemporary literature in the field of social sciences on the subject[10]. There is no doubt that, after a long period of little relevance given to the subject due to the omnipresence of the research agenda on violence, the field of public health faces the challenge of revisiting the complexity of issues related to suicide highlighted by Emile Durkheim and contemporary followers.

In this sense, it is important to consider, following the proactive perspective of Palma and colleagues[26], that 90% of suicide cases can be prevented through public/institutional policies, including the provision of listening, support and inclusion. The dimension of belonging, reinforced in expressions of support and recognition, is fundamental to actions addressing the issue[26].

Even so, Guimarães[47] highlights that reducing deaths from intentional self-harming behavior is an extremely complex task, also requiring increased access to mental health care, greater space for debate on the topic in civil society, and the development of communication guidelines for the media in general in order to avoid the glamorization of suicide.

It is important, as highlighted, to bring to the forefront, in academic research and government actions, the influence of factors such as ethnicity, housing and working conditions, sexual violence, psychological suffering, the deficit or absence of mental health care offered by the SUS (Brazilian Unified Health System), and mortifying social isolation, as highlighted in a study on vulnerable social groups in the country[48].

Palma and colleagues[49] also rightly point out that events such as suicide are hidden and downplayed, especially when their numbers are considered to have a low impact. In this sense, it is relevant to note, in this review, that most of the analyses published in articles are in favor of considering the situation of suicide in Brazil as a critical and expanding event since the 1990s among adolescents, young people, the elderly, and the female population. With regard to the adolescent population, it is worth remembering the record of Oliveira and colleagues[50] that, in the Northeast, the home was the main place of occurrence, and hanging/strangulation was the main method used, minimizing the condition of street life or life in a socio-educational unit[50].

In contrast to the expansive scenario observed in Brazil, several countries in Western and Southern Europe recorded a decline in suicide rates among 15-19 year-olds in the 1990s and 2000s[51]. This exemplary drop was the result of the complex interaction of cultural factors, socioeconomic conditions, public health initiatives, including prevention programs and expanded primary care coverage[51].

Successful care and prevention policies have therefore required universal measures aimed at adolescents in general and specific initiatives aimed at high-risk groups[50]. However, they offer little evidence on the effectiveness of pharmacological treatments, such as the use of antidepressants. On the other hand, restricting access to the means of committing suicide has been an important preventive measure, as has understanding the new factors that contribute to suicide among young people, especially digital media. As Bertuccio and co-authors point out[51], the massive diffusion of social media has introduced new challenges for public policy action and research on risk factors for illness among adolescents. Recent evidence indicates that social media induces feelings of loneliness, depression, and outcomes associated with suicide. With the known risk factors, research into this contemporary phenomenon will help

to understand suicide and suicidal behaviors, especially among younger people[52].

Authorship contributions

Costa NR (0000-0002-8360-4832)* contributed to the conception and planning, data analysis and interpretation, drafting, critical review of the content, and approval of the final version of the manuscript. Silva PRF (0000-0003-0811-4080)*, Uhr D (0000-0001-5162-6108)*, and Magalhães RM (0000-0003-1225-6719)* contributed to the data analysis and interpretation, drafting, critical review of the content, and approval of the final version of the manuscript. ■

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