



Prevalence of suicide attempts among adolescents and young people*


Erasmus de Carvalho Oliveira¹

 <https://orcid.org/0000-0003-0579-1297>


Tatiane Scolastici Meucci¹

 <https://orcid.org/0000-0001-9228-5872>

Lisabelle Mariano Rossato²

 <https://orcid.org/0000-0003-3375-8101>

Ana Márcia Chiaradia Mendes-Castillo³

 <https://orcid.org/0000-0002-0367-1606>

Lucía Silva⁴

 <https://orcid.org/0000-0002-6353-7580>

Objective: to characterize the suicide attempts among adolescents and young people in a Brazilian city. **Method:** this is a quantitative, retrospective, exploratory, and descriptive study, carried out at the Family Health Support Center. Data were collected from 55 files of compulsory notification of individuals between 12 and 25 years old, notified as suicide attempt by the Center for Epidemiological Surveillance, during the study period. The organization and analysis of the data were performed by means of descriptive statistics. **Results:** the sample was mainly composed of individuals aged 22 to 25 years old, white-skinned women, students, single women, living in urban areas, with suicide attempted at home, at night, by poisoning. **Conclusion:** this profile is similar to the profile of attempts among adults highlighted in the literature, indicating the importance for the professionals to implement prevention strategies also among children and adolescents, in order to avoid not only attempts but also suicide among this population.

Descriptors: Suicide Attempted; Suicide; Poisoning; Death; Violence; Adolescent.

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¹ Universidade Nove de Julho, Faculdade Marechal Rondon, São Manuel, SP, Brazil.

² Universidade de São Paulo, Escola de Enfermagem, São Paulo, SP, Brazil.

³ Universidade Estadual de Campinas, Faculdade de Enfermagem, Campinas, SP, Brazil.

⁴ Universidade Federal de São Paulo, Escola Paulista de Enfermagem, São Paulo, SP, Brazil.

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Prevalência de tentativas de suicídio entre adolescentes e jovens

Objetivo: caracterizar as tentativas de suicídio entre adolescentes e jovens em um município brasileiro. Método: trata-se de estudo quantitativo, retrospectivo, descritivo exploratório, realizado no Núcleo de Apoio à Saúde da Família. Foram coletadas informações de 55 fichas de notificação compulsória de pessoas entre 12 e 25 anos de idade, notificadas como tentativa de suicídio pelo Núcleo de Vigilância Epidemiológica, no período estudado. A organização e a análise dos dados foram realizadas por meio de estatística descritiva. Resultados: evidenciou-se uma amostra composta principalmente por pessoas de 22 a 25 anos de idade, mulheres, da raça branca, estudantes, solteiras, residentes em zona urbana, com tentativa de suicídio no próprio domicílio, no período noturno, por envenenamento. Conclusão: este perfil assemelha-se ao perfil das tentativas entre adultos, apontado na literatura, sinalizando a importância de os profissionais programarem estratégias de prevenção inclusive entre crianças e adolescentes, a fim de se evitar, futuramente, não somente as tentativas, mas também o suicídio entre essa população.

Descritores: Tentativa de Suicídio; Suicídio; Envenenamento; Morte; Violência; Adolescente.

Prevalencia de intentos de suicidio entre adolescentes y jóvenes

Objetivo: caracterizar los intentos de suicidio entre adolescentes y jóvenes en un municipio brasileño. Método: estudio exploratorio cuantitativo, retrospectivo, descriptivo, realizado en el Centro de Apoyo a la Salud de la Familia. Se recopiló información de 55 registros de notificación obligatoria de personas entre 12 y 25 años, notificadas como intento de suicidio por el Centro de Vigilancia Epidemiológica, durante el período estudiado. La organización y el análisis de los datos se realizaron con estadística descriptiva. Resultados: se compuso una muestra principalmente de personas de 22 a 25 años, mujeres, blancas, estudiantes, solteras, que viven en áreas urbanas, con intento de suicidio en el hogar, por la noche, por envenenamiento. Conclusion: este perfil es similar al perfil de los intentos entre adultos, señalado en la literatura, lo que indica la importancia de los profesionales para implementar estrategias de prevención incluso entre niños y adolescentes, para evitar, en el futuro, no solo intentos, sino también suicidios entre esta población.

Descriptorios: Intento de Suicidio; Suicidio; Envenenamiento; Muerte; Violencia; Adolescente.

Introduction

In Brazil, although the Statute of Children and Adolescents defines an adolescent as an individual between 12 and 18 incomplete years old and the Statute of Youth considers Young individuals those aged between 15 and 19 years old, the most recent Brazilian public policies point out the age range limits between 10 and 24 years old for health priority actions, even in the specific recommendations for adolescents⁽¹⁾.

The Ministry of Health, federal manager of the Unified Health System (*Sistema Único de Saúde, SUS*) in Brazil, received a specific determination from the Statute of Children and Adolescents (*Estatuto da Criança e do Adolescente, ECA*) to promote the right to life and health for this population. However, sometimes the reach of comprehensive health of these individuals is threatened by violence⁽¹⁾.

Suicide is one of the types of violence that affects all age ranges, including adolescents and young individuals, being classified as self-provoked violence, intentionally, in the sense that the individuals end their own life, being considered a public health problem worldwide. Regarding the suicide attempt, it differs by the outcome that does not cause death after the attempt⁽²⁾.

In Brazil, 55,649 deaths due to suicide were identified between 2011 and 2015, representing a rate of 5.5/100,000 inhabitants. As for the suicide attempts specifically, the focus of the present study, 48,204 occurrences from 2011 to 2016 were entered into the Notifiable Diseases Information System (*Sistema de Informação de Agravos de Notificação, Sinan*), with 25.9% of the cases affecting female individuals and 19.6% in male individuals aged 10 to 19 years old⁽³⁾.

In Brazil, an increase in the suicide rates among adolescents and youths is observed, representing the third greater cause of death among the 15-to-29-year-old male population, and the eighth greater cause of death among the female population in the same age range⁽⁴⁾. Besides Brazil, this increase has also been reported in studies carried out in several countries, such as China⁽⁵⁾, South Africa⁽⁶⁾, France⁽⁷⁾, United States⁽⁸⁾, and Peru⁽⁹⁾.

This world overview, which signals the increase in the suicide rates among children and adolescents, is concerning, as it points to a contrary direction⁽¹⁰⁾ to the achievement of the agreement established by the World Health Organization in the sense of reducing suicide rates by 10% until 2020⁽²⁾.

Another important point to be considered is the fact that most of the adults with mental disorders report their first symptoms of depressive or anxious condition before 24 years of age⁽¹¹⁾.

Recognizing that younger individuals have this kind of mental distress, as well as the suffering that can be

related to family, social, economic, cultural, and individual factors⁽¹⁰⁾, which expose them to a greater risk of suicide behavior, is essential for the prevention policies. A study whose objective was to know the main diagnoses in a general outpatient clinic that offers medical and nursing consultations to adolescents between 10 and 18 years of age with health problems in Portugal has evidenced that mental and behavior disorders were the most prevalent among the girls and in the group of adolescents aged 14 to 18 years old. Mental disorders represented the second group in the most prevalent diagnoses among the adolescents followed-up by this outpatient clinic, pointing to the importance of offering health care specific to this population⁽¹²⁾.

Stressor factors such as recent disagreements, poor school performance, breaking up affective relationships⁽¹³⁾, and the dissatisfaction related to overweight and slimness⁽¹⁴⁾ are associated with the high risk for the development of suicidal behavior among adolescents and young individuals.

Other studies showed that there is an inverse relationship between suicidal behavior in this population and family protection factors such as support, cohesiveness, and adaptation in the family in face of moments of crisis and adversities. In this sense, risk factors related to family structure and functioning can be predictors of suicide attempts in this population^(7,9,13).

Given the above, the importance of professional care for mental disorders in adolescents and young individuals is highlighted, decreasing mortality risk and future morbidity⁽¹¹⁾.

In this sense, it is believed that, by knowing the profile of adolescents and young individuals who attempted suicide, health professionals may recognize those at greater risk, designing more contextualized prevention and intervention strategies, referring these young individuals to specialized care.

Therefore, the objective of this study was to characterize the suicide attempts among adolescents and young individuals in a municipality in the inland of São Paulo.

Method

This is a quantitative, retrospective, and exploratory-descriptive study, conducted at the Family Health Support Center (*Núcleo de Apoio à Saúde da Família, NASF*), established in a health facility that holds several services offering qualified support to the primary care network of the Municipal Health Secretariat of Botucatu, a municipality in the Midwest region of São Paulo, Brazil.

Data were collected from April 2015 to February 2016, by Nursing students from a private university located in the city of São Manuel/SP, 20 km away

from Botucatu, under the supervision of professors, with approval by the Research Ethics Committee, via Plataforma Brasil (CAAE: 21828813.2.0000.5411).

It is emphasized that the students involved in the data collection of this study participated in a university extension project in the field of suicide prevention. Knowing the profile of the attempts presented in this article, as well as the suicides involving adolescents and young individuals, was one of the strategies used to get them closer to this scenario, so as to sustain the planning of the process of caring for the mourning families⁽¹⁵⁾, carried out later, and also to stimulate the NASF team to discuss strategies for suicide prevention among children and adolescents, in the scope of primary health care.

To do so, one of the research authors and coordinator of the extension project conducted a training moment with the students to guide data collection of the relevant data from the compulsory notification forms of suicide attempts, available in the Center for Epidemiological Surveillance (*Núcleo de Vigilância Epidemiológica*, NUVE) for archiving in the NASF.

A total of 55 forms were included in the sample from notifications of occurrences involving individuals aged 12 to 25 years old, classified as suicide attempts in 2015, both for intoxication and self-inflicted violence.

Data were collected by means of consulting the aforementioned forms, with the aid of pre-elaborated instruments, with information on gender, age, skin color/race, marital status, schooling, usual occupation, housing area, place of occurrence of the attempts, period of the day and month of the year in which the attempt occurred, means of aggression, toxic agents used, and recurrence.

The information was organized in an electronic database, developed in Microsoft Office Excel. Then, the data were analyzed by means of descriptive statistics, based on the calculations of the absolute and relative frequencies of the variables under study.

Results

Of a total of 55 suicide attempt notifications among adolescents and young individuals in 2015, it was verified that, regarding gender, 58.18% of the cases occurred with female individuals and 41.82% with male individuals.

Regarding the age range, it was evidenced that the highest prevalence of suicide attempts (32.73%) occurred among young adults belonging to the age range from 22 to 25 years old, and the lowest prevalence from 12 to 15 years old (14.54%), indicating that the suicide attempt rates increased according to the age of the studied population (Figure 1).

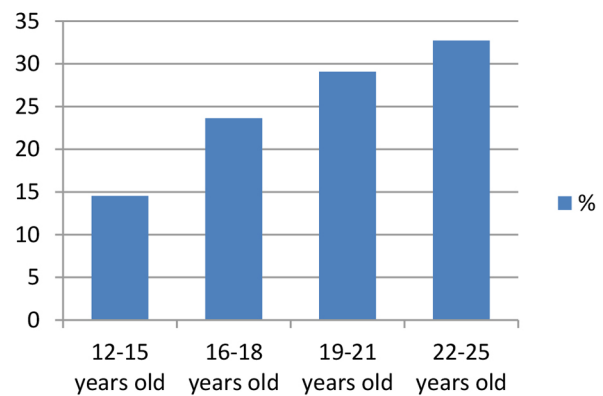


Figure 1 - Distribution by age of the adolescents and young individuals who attempted suicide. Botucatu, SP, Brazil, 2015

Regarding the skin color/race of the adolescents and young individuals, 91.56% were white-skinned, followed by 5.97% of black-skinned individuals and by 2.47% of brown-skinned people, according to the information that made up the notification form, filled up by the physician responsible for the case. As for marital status, 80% were single, 16.37% were in a stable union, and 3.63% of the forms lacked this information.

Data regarding the schooling level of this population were collected, and they are presented as follows: 10.91% had complete elementary school, 47.27% had incomplete elementary school, 12.73% complete high school, 25.45% incomplete high school, and 3.64% incomplete higher education.

The most prevalent occupations of the adolescents and young individuals under study were as follows: students (29.09%) and housewives (16.36%), while 23.64% were unemployed (Figure 2).

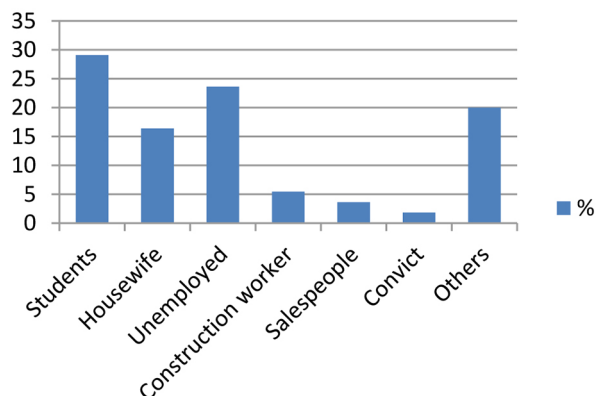


Figure 2 - Distribution by occupation of the adolescents and young individuals who attempted suicide. Botucatu, SP, Brazil, 2015

As for the housing area of the adolescents and young individuals, it was observed that 94.05% lived in the urban area and 5.95% lived in the rural area. And

regarding the place of occurrence of the suicide attempts, it was verified that 92.72% happened inside their own house, 3.64% on a public street, 1.82% in collective housings, and other places of occurrence not detailed in the notification form totaled 1.82% of the cases.

It was evidenced that the period in which there were most attempts was the night hours with 41.82% of the recorded cases, followed by 27.27% in the afternoon, 20% in the morning, and 10.91% at dawn.

Regarding the month in which the suicide attempt occurred, the following distribution was verified: January (20%), February (10.90%), March (10.90%), April (5.46%), May (0%), June (7.28%), July (3.64%), August (5.46%), September (5.46%), October (9.10%), November (10.90%), and December (10.90%).

The most commonly used means of aggression were poisoning (80%), use of sharps (9.09%), hanging (5.45%), and others (3.64%). In 1.82% of the cases, this information was not available on the notification form.

Among the exogenous intoxications (poisonings), in 78.18% of the notification forms there was no mention of the toxic agent used, in 20% of the cases, medications were used and, in 1.82% of the occurrence, the adolescents used agrochemicals.

In the present study, 25.45% of the cases were classified as recurrent and 74.55% as non-recurrent.

Discussion

Suicide attempts are complex events that involve social, economic, cultural, and biological determinants^(2,3,16). The experience of going through an affective breakup, the presence of family conflicts, anxiety, and depression are factors strongly associated with the risk of suicide⁽¹⁶⁻¹⁷⁾.

A study conducted in South Korea that examined the predictor factors to the suicide attempts among adolescents with a depression diagnosis evidenced that almost half of the depressed adolescents had already attempted suicide and that, of these, most were girls⁽¹⁸⁾. Although we lack information regarding the diagnosis of depression in the notification forms of the adolescents who made up the sample of our study, we also observe that most of the occurrences were evidenced among female individuals.

According to the results of this research, the older the adolescents and young individuals are, the higher the rates of suicide attempts. In general, it is observed that the death rates due to suicide also rise as age increases^(2,7). Likewise, this relationship is pointed out by other authors⁽¹¹⁾ when they assert the existence of greater prevalence of this event among older adolescents and younger adults.

It is possible to evidence the predominance of the white race among the adolescents and young people, both in this research and in others that sought to characterize the profile of the population that attempts suicide⁽³⁾.

Most of the adolescents and young individuals characterized in our study were single, a marital status expected for this age range, in the context studied. However, better detailing this matter, such as the existence of affective relationships, could contribute to predicting the role of social support for the prevention of suicide attempts in this population.

Most of the adolescents and young people studied in this survey had incomplete elementary education. It is also highlighted that the literature associates low schooling level with suicide attempts not only among adolescents and young people but also in the other age groups⁽³⁾.

Our research revealed a greater proportion of students, given the age of the adolescents and young individuals, as well as a considerable percentage of those identified as unemployed. In this sense, it is considered important to highlight that the literature already shows an association of socioeconomic factors such as unemployment and suicide rates among adolescents, in which the highest levels of unemployment and social inequality were associated with higher rates of suicide⁽¹⁹⁾.

Our study verified that the highest rates of suicide among adolescents and young individuals occur in the urban area, and in the individuals' homes, as identified in a national survey on cases of suicide attempts notified to the Sinan between 2011 and 2016⁽³⁾.

We have not so far located other studies that portrayed the period of the day when suicide attempts commonly occur. Most of the attempts among adolescents and young individuals in this research occurred at night, possibly due to the fact that there are fewer people in common areas of the house, the place with the highest occurrence of these attempts.

The research indicates greater prevalence of suicide attempts in January, the period in which the adolescents are normally on school vacation. Significant prevalence values were also found in the months of February, March, November, and December, in equal proportion.

Most of the occurrences identified in this research were due to poisoning. Although most of the compulsory notification forms do not mention the toxic agent used in the suicide attempt, some of them indicated that it was by means of ingestion of medications and agrochemicals. In this regard, it is worth mentioning that the World Health Organization emphasizes the restriction to the means that the individuals might use to try to take their own life, such as agrochemicals and fire guns; this is one of the most effective strategies for preventing suicide⁽²⁾.

It is also worth mentioning the fact that more than one-fourth of the adolescents and young individuals are classified as recidivist regarding suicide attempts, an event that is not discussed in the literature, considering this specific age group, but this may represent harm to innovation and the economy of society. In general, more than 31.3% of the suicide attempts among women and 26.4% of the suicide attempts among men were repetitive, in a survey conducted by the Ministry of Health⁽³⁾.

In general, the following are highlighted as limitations in the present research study: the possibility of under-notification of the suicide attempts among adolescents and young individuals, as well as poor content regarding some variables, such as marital status, place of occurrence, and means of aggression, where there was no information available in all the notification forms surveyed. With the publication of the National Policy for the Prevention of Self-mutilation and Suicide, the public power intends to strengthen the notifications of suspect or confirmed cases of self-provoked violence, performed not only by the health services but also by teaching institutions⁽²⁰⁾.

The phenomenon of attempted suicide among adolescents has been better explored in recent years, especially with a focus on epidemiological studies, which allow understanding the quantitative diagnosis of the problem. Studies that seek to deepen the understanding of this event can be carried out by giving the adolescents, their families, and the multi-professional teams the opportunity to speak, allowing for interventions according to the family and cultural context and enhancing professional training in this field.

Conclusions

The profile of adolescents and young adults who attempted suicide in the city under study is mainly characterized by women, white-skinned people, students, single, living in the urban area, who attempted suicide at their own house, by poisoning, similar to the profile of the attempts among adults pointed out in the literature. It was also evidenced that, the older the individual, the greater the prevalence of suicide attempts, highlighting the need for the professionals to plan prevention strategies even among children and adolescents, in order to avoid, in the future, not only the attempts but also suicide among these young individuals. For this, it is essential that there is articulated work in a system of health care networks for this population, involving the family; health, education, and social assistance professionals; and community programs, so that the protection of the life and health of children, adolescents, and young people is a commitment embraced by all segments of society.

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Author's Contribution

Study concept and design: Erasmo de Carvalho Oliveira and Lucía Silva. Obtaining data: Erasmo de Carvalho Oliveira, Tatiane Scolastici Meucci and Lucía Silva. Data analysis and interpretation: Erasmo de Carvalho Oliveira, Tatiane Scolastici Meucci, Lisabelle Mariano Rossato, Ana Márcia Chiaradia Mendes Castillo and Lucía Silva. Statistical analysis: Erasmo de Carvalho Oliveira, Tatiane Scolastici Meucci and Lucía Silva. Drafting the manuscript: Erasmo de Carvalho Oliveira, Tatiane Scolastici Meucci, Lisabelle Mariano Rossato, Ana Márcia Chiaradia Mendes Castillo and Lucía Silva. Critical review of the manuscript as to its relevant intellectual content: Lisabelle Mariano Rossato, Ana Márcia Chiaradia Mendes Castillo and Lucía Silva.

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Corresponding Author:

Lucía Silva

E-mail: silva.lucia@unifesp.br

 <https://orcid.org/0000-0002-6353-7580>

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