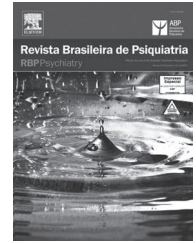




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ORIGINAL ARTICLE

Suicide mortality in São Gabriel da Cachoeira, a predominantly indigenous Brazilian municipality

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DESCRIPTORS

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Abstract

Objective: To describe the characteristics and the raw suicide mortality rates (RSMR) during the period 2000-2007 in the municipality with the largest proportion of self-reported indigenous people in Brazil, São Gabriel da Cachoeira (SGC), State of Amazonas. **Method:** A retrospective descriptive study was carried out using data from the Information Department of the Brazilian Unified Health System (DATASUS). We considered suicide the cause of death coded in the records as voluntary self-inflicted injuries according to the International Classification of Diseases and Related Health Problems, 10th revision. **Results:** Forty-four suicide cases were registered in this period. The average RSMR was 16.8 per 100,000 inhabitants (male, 26.6; female, 6.3). The highest rates were observed in the age groups 15-24 years and 25-34 years, with RSMR of 43.1 and 30.2 per 100,000 inhabitants, respectively. Most suicides occurred among indigenous people (97.7%), males (81.8%), and unmarried people (70.5%). In most cases, deaths occurred at home (86.4%), during weekends (59.1%) and mainly by hanging (97.7%). **Conclusion:** Suicide is a significant health and social problem in SGC. The suicide profile observed in this municipality was, as a whole, more similar to that observed in certain indigenous communities than that found in most urban and non-indigenous environments, demonstrating the sociocultural specificity of these events in Brazil.

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DESCRITORES:

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Mortalidade por suicídio em São Gabriel da Cachoeira, município brasileiro predominantemente indígena

Resumo

Objetivos: Descrever as características e as taxas brutas de mortalidade por suicídio (TBMS), no período de 2000-2007, no município brasileiro com a maior proporção de pessoas auto-declaradas indígenas, São Gabriel da Cachoeira (SGC), Estado do Amazonas, Brasil. **Método:** Estudo retrospectivo e descritivo, utilizando dados do Departamento de Informática do Sistema Único de Saúde (DATASUS). Foram considerados óbitos por suicídio os registros codificados como lesões autoprovocadas voluntariamente na Classificação Estatística Internacional de Doenças e Problemas Relacionados à Saúde, 10ª revisão. **Resultados:** Foram registrados 44 suicídios no período. A TBMS média foi 16,8 por 100.000 habitantes (masc., 26,6; fem., 6,3). As taxas mais elevadas foram observadas nas faixas etárias 15-24 e 25-34 anos, com TBMS 43,1 e 30,2 por 100.000 habitantes, respectivamente. A maioria dos suicídios ocorreu entre indígenas (97,7%), do sexo masculino (81,8%) e solteiros (70,5%). Os óbitos ocorreram em sua maioria em casa (86,4%), no final de semana (59,1%) e principalmente por enforcamento (97,7%). **Conclusão:** O suicídio é um importante problema social e de saúde pública em SGC. O perfil dos suicídios observados neste município como um todo foi mais próximo daquele encontrado em certos contextos indígenas do que o encontrado em ambientes urbanos e não indígenas, demonstrando as especificidades socioculturais desses eventos no Brasil.

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Introduction

In 2005, the raw suicide mortality rate (RSMR) in Brazil was 6.5 per 100,000 inhabitants, a low number when compared to other countries.¹ However, regional variations in RSMR are common in Brazil.^{2,3} During the period 1980-2006, the south region presented an average RSMR of 9.3 per 100,000 inhabitants, while the northeast presented an average of 2.7 per 100,000 inhabitants.² As observed in different countries,^{4,5} there are signals that some indigenous communities present RSMR highly different from those observed among non-indigenous people in Brazil.⁶ There is no epidemiological data available on suicide among indigenous people from the Brazilian Amazon living in urban environments. Given the lack of studies on this subject, the purpose of this article is to analyze the characteristics and rates of suicide in the municipality with the highest proportion of self-reported indigenous people in Brazil during the period 2000-2007.

Method

A quantitative, retrospective descriptive study was carried out in the municipality of São Gabriel da Cachoeira (SGC), situated in the Upper Rio Negro region, State of Amazonas, Northern Brazil (Figure 1). Approximately 76% of its 29,947 inhabitants self-reported themselves as indigenous people. The mortality data and the population estimates of SGC were obtained from the Information System on Mortality of Information Department of the Brazilian Unified Health System (DATASUS).⁷ All records coded as self-inflicted injuries (codes X60 to X84) and classified as death due to suicide in the International Classification of Diseases, 10th revision (ICD-10), were considered suicide cases.⁸ The sociodemographic description was performed from

the variables race/color, sex, marital status, and age. The clinical-epidemiological description was performed from the variables place of death (home, hospital etc.), basic cause of death, and day of the week (weekend, Friday through Sunday; and non-weekend, Monday through Thursday). Descriptive analyses were performed taking into account relative frequencies, absolute frequencies, and measures of central tendency. Data entry and analysis were made using the SPSS software, version 9.0.



Figure 1 Map of Upper Rio Negro region, State of Amazonas, Northern Brazil.

Results

Forty-four suicide cases were registered in this period. The average RSMR was 16.8 per 100,000 inhabitants (26.6 among males and 6.3 among females). The highest rates were observed in the age groups 15-24 and 25-34 years, with mortality rates of 43.1 and 30.2 per 100,000 inhabitants, respectively. The lowest rates were observed in the age groups 5-14 and 35-44 years, with rates of 6.1 and 18.8 per 100,000 inhabitants, respectively.

Most suicides occurred among indigenous people (97.7%), males (81.8%), and unmarried people (70.5%). Ages ranged from 12 to 40 years. The mean age was 22.5 and the modal value was 18 years (four cases). The mean age of females (17.0 years old) was lower than that of males (23.5 years old). In most cases, deaths occurred at home (86.4%) and by hanging (97.7%). Most suicides (59.1%) occurred during weekends.

Discussion

The average rate of suicide mortality in São Gabriel da Cachoeira from 2000 to 2007 was 16.8 per 100,000 inhabitants, which was three times higher than the registered rate for the general Brazilian population from 2001 to 2006. It was even higher than the rates for the State of Rio Grande do Sul and the city of Macapá, the two highest suicide rates during the same period.²

It is important to note that the occurrence of suicides in SGC involves low frequency events in a relatively small population and therefore requires prudence when making comparisons with data collected from larger populations, such as those from large cities, states or countries.

The RSMR of SGC are very close to those reported by the American Indian Health Service for indigenous peoples during the biennium 1998-1999 (19.3 per 100,000 inhabitants),⁵ as well as to the rates of the Sami of Norway for the period 1970 to 1998 (18.5 per 100,000 inhabitants).⁴ On the other hand, the rates observed in SGC are lower than those observed among the indigenous peoples of the Australian Northern Territory (36.7 per 100,000 inhabitants),⁹ the White Mountain Apache from 2001 to 2006 (45 per 100,000 inhabitants),¹⁰ the Guaraní Kaiowá and Nandeva from the state of Mato Grosso do Sul, Brazil, in 2005 (83.6),⁶ and the Inuit from Nunatsiavut-Canada from 1999 to 2003 (160 per 100,000 inhabitants).¹¹

Analyzing over-mortality between sexes in SGC, it was observed that RSMR were, approximately, 5 times higher among men from 2000 to 2007. Among indigenous populations, this difference is similarly high, typically reaching 4:1.^{4,6} In our study, the highest RSMR were observed among adolescent and young adults (ages 15 to 24 years), deviating from what is often observed in nationwide and international studies with non-indigenous peoples, in which despite the significant increase in the number of deaths among young people in the last few decades, it is observed that over 60% of all deaths by suicide is concentrated among people older than 45 years.^{2,9,12} The overall RSMR observed in the age group 15 to 24 years is very similar to those observed among indigenous peoples elsewhere, where such deaths are also more frequent in this age group and, as a rule, are among the three leading causes of mortality.^{5,9}

The sociodemographic and clinical-epidemiological characteristics of suicide in SGC is consistent with the patterns commonly described for many other indigenous societies, with a predominance of men and young and unmarried individuals,⁵ and hanging as the most common method of suicide.^{5,9} The methodological approach utilized in this study does not allow explanations of the epidemiological characteristics of suicide in SGC. However, hypotheses may be advanced based on ethnographic data regarding the impact of social and cultural changes on indigenous ways of life in the Upper Rio Negro.

A major change was the abolition of the initiation rites between childhood and adulthood in most parts of the region. Consequently, the social status of contemporary young people is unclear. They are not exactly children or adults, and it is undefined when they will in fact leave this liminal state. This transition occurred at the same time that formal education was introduced in the region by religious interests. Upon completion of high school, additional opportunities to study and/or to enter the limited regional labor market are not available to most young people.¹³ The uncertain status of the young population and the incompatibility between their aspirations and the realities of their life prospects are interesting aspects that may be explored in further studies of suicide in this indigenous context.

The indigenous peoples of the Upper Rio Negro have extensive knowledge of different plant extracts that may be used as lethal poisons. However, this type of knowledge is restricted to the elderly for cultural reasons. Additionally, access to these plants is hindered by the processes of urbanization and environmental degradation in the more populous indigenous lands of SGC. Furthermore, unlike what has been observed among the Guaraní Kaiowá of Mato Grosso do Sul,⁶ the indigenous peoples of SGC have no easy access to pesticides, which could be used to commit suicide, because their lands are not used for large-scale farming. The absence of these potential means of committing suicide may help explain the predominance of hanging as the primary method of suicide in SGC. On the other hand, the predominance of suicide by hanging at home (86.4%) could be associated with the high lethality of this method² and the lack of access to potentially emergency health services, especially in the peripheral areas of SGC.

It should be remembered that this study was based on secondary health data from a region where the public health system suffers deficiencies. Lack of completeness and accuracy in the reported suicides may explain, at least in part, the excessively high rate of suicides by hanging, since other methods of suicide (e.g., poisoning) were likely underreported.

Another notable trend is the high concentration of suicides during weekends. One hypothesis that warrants consideration in future studies is the possible association between alcohol consumption and suicide. Ethnographic research carried out in communities located in SGC showed that, although the traditional fermented alcoholic beverages (*caxiri*, a drink made from manioc) are important elements of the indigenous culture, this custom has undergone major changes due to the gradual adoption of industrialized alcoholic beverages. The increased acceptance of drinking in different social situations and the adoption of the work

week as a reference for patterns of behavior result in social moments, particularly on weekends, in which drinking is culturally sanctioned.¹³

Conclusions

Although suicide has been a significant health and social problem among the Brazilian indigenous people, especially in recent decades, this subject remains very little explored in the national literature. Although some official documents often mention indigenous suicide, Brazil still lacks clear public policies to confront this phenomenon.

This study, describing an unprecedented analysis of suicide mortality in the Brazilian municipality with the largest proportion of indigenous people, also demonstrated its singularity and the sociocultural diversity within which these events occur in Brazil.

Finally, it is important to emphasize that the literature shows that successful initiatives aiming at reducing suicide mortality in these populations require knowledge generated from the combined efforts of different disciplines, as well as collaborative strategies involving indigenous people, through the establishment of respectful and communicative relationships.^{14,15}

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Disclosures

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* Modest

** Significant

*** Significant: Amounts given to the author's institution or to a colleague for research in which the author has participation, not directly to the author.

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