

## CARACTERIZAÇÃO DOS INDIVÍDUOS QUE REALIZARAM PRÁTICA/TENTATIVA DE AUTOEXTERMÍNIO EM ITAPECERICA, MINAS GERAIS, BRASIL

## CHARACTERIZATION OF THE INDIVIDUALS WHO EXECUTED AND/OR ATTEMPTED SELF-EXTERMINATION IN ITAPECERICA, MINAS GERAIS, BRAZIL

## CARACTERÍSTICAS DE LAS PERSONAS QUE REALIZARON LA PRÁCTICA O INTENTO DE AUTO EXTERMÍNIO EM ITAPECERICA, MINAS GERAIS, BRASIL

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### RESUMO

**Objetivo:** Analisar as características dos indivíduos que realizaram a tentativa e/ou efetivação do autoextermínio no município de Itapeçerica, Minas Gerais, Brasil. **Método:** Pesquisa de natureza exploratória e descritiva. Foi realizada análise dos dados através das declarações de óbitos e notificações por suicídio, segundo o Sistema de Informação de Mortalidade (SIM) e o Sistema de Notificação e Agravos (SINAN) em que foram contempladas todas as variáveis, no período de 2013 a 2015. **Resultados:** a maioria dos óbitos ocorreram no sexo masculino, solteiros, de cor branca, na faixa etária entre 31-50 anos, sendo que o método mais utilizado foi o enforcamento. Em relação às tentativas, predominou-se o sexo feminino, de cor branca, faixa etária entre 31-50 anos e o método mais utilizado, foi o medicamento. **Conclusão:** Neste estudo, foi possível caracterizar as vítimas acometidas pelas tentativas e pelo ato consumado do autoextermínio, no entanto observou-se incompletude no preenchimento dos documentos analisados, principalmente em relação ao nível de escolaridade nas Declarações de Óbitos (DO's) que constava como 'ignorado'.

**Descritores:** Epidemiologia; Saúde pública; Suicídio.

### ABSTRACT

**Objective:** To analyze the characteristics of individuals who attempted and/or carried out self-extermination in the municipality of Itapeçerica, Minas Gerais, Brazil. **Method:** Exploratory and descriptive research. Data analysis was performed through the death and suicide reports, according to the Mortality Information System (MIS) and the SINAN (Diseases and Notification Information System), in which all variables were considered, in the period from 2013 to 2015. **Results:** most deaths occurred in males, single, white, in the age group between 31-50 years, and the most commonly used method was hanging. Regarding the attempts, there was predominance of females, white, age group between 31-50 years and the most used method was the medicine. **Conclusion:** This study allowed characterizing the victims affected by the attempts and consummation of the self-extermination, however, the analyzed documents were incomplete, mainly in relation to the level of schooling in the Declarations of Deaths (DO's), appearing as 'Ignored'.

**Descriptors:** Epidemiology; Public health; Suicide.

### RESUMEN

**Objetivo:** Analizar las características de las personas que realizaron el intento y/o la realización de auto-extermínio en el municipio de Itapeçerica, MG. **Método:** Pesquisa de naturaleza exploratoria y descriptiva. Se realizó el análisis de datos de certificados de defunción y notificaciones para el suicidio de acuerdo con el Sistema de Información de Mortalidad (SIM) y el Sistema de Notificación y Enfermedades (SINAN), donde se contemplan todas las variables. **Resultados:** La mayoría de las muertes ocurrieron en los hombres, solteros, de raza blanca, con edades comprendidas entre 31-50 años y el método más utilizado fue el colgante. En cuanto a los intentos, predominó el sexo femenino, raza blanca, con edades comprendidas entre 31-50 años y el método más utilizado fueron las medicinas. **Conclusión:** Como resultado de este estudio, fue posible caracterizar las víctimas acometidas por tentativas e por ato consumado do autoextermínio, sin embargo fue observado incompletitud en los documentos analizados, principalmente en relación a el nivel de enseñanza en los Certificados de Defución (CD's) que figurava como "desconocido".

**Descriptores:** Epidemiología; Salud pública; Suicidio.

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#### How cite this article:

Vieira VAS, D'alessandro FCS, Silva FMR, Coelho KR, Quadros KAN. Characterization of the individuals who executed and/or attempted self-extermination in itapeçerica, minas gerais, brazil. Revista de Enfermagem do Centro-Oeste Mineiro. 2017;7:e1681. <https://doi.org/10.19175/recom.v7i0.1681>

## INTRODUCTION

Suicide is a phenomenon that can be defined as a self-inflicted violence, in which an individual has knowledge of its result. It is also defined as an voluntary death act performed by the individual itself, intentionally, ending with its own life<sup>(1-3)</sup>. Suicide can relate to the psychological aspects of the person or to the social beliefs and customs, defined by the very choice of death; it is a way that the individual has to get rid of some problem, without the courage to face the challenges offered by life<sup>(4)</sup>.

However, the person who attempts self-extermination does not always intend to die, it desires a quiet life that does not offer suffering, without pain and anguish<sup>(5)</sup>. In this way, a helping behavior can contribute to change an individual's thinking. In some cases, the self-extermination attempt is consummated, but some factors may hamper the act to take effect, such as execution failure or help, depending on the case<sup>(1)</sup>.

Suicide is now considered a major global public health problem and, according to researches conducted over the last five decades, deaths from attempted suicide have increased 60%, and their worldwide rate is estimated at around 16 deaths per 100 thousand inhabitants. However, by 2020, the number of suicides could reach more than 1.5 million individuals, and attempts could be up to twenty times greater than the number of self-exterminations. Brazil is among the 10 countries where deaths due to self-extermination are high, representing 0.8% of the total deaths of Brazilians and 6.6% of deaths from external causes<sup>(6-8)</sup>.

In recent years, the death rate due to suicide has increased considerably among the young population, and it is already the third largest number of deaths among individuals of both genders in the age group between 15 and 34 years. However, the elderly male represents the highest risk group. In addition, it is estimated that ten self-extermination attempts that need medical care occur for each suicide case. However, for each reported case of attempt, there are four other cases that were not documented<sup>(8)</sup>.

Nevertheless, in view of the possible impact of suicide on public health, as well as its high rate registered in recent years and the presence of risk factors, the National Plan for

Suicide Prevention (PNPS) 2013-2017 was created. This plan adopts some measures directed to the general population, the selection of specific risk groups and people with increased risk, also contemplating an improvement in the annotations of the suicide acts, as well as the reduction of self-harmful and suicidal behaviors<sup>(9)</sup>.

Although there is an effort and progress in relation to the public policies aimed at coping, especially at suicide prevention, health professionals still face a great challenge to identify characteristics that can help to prevent this aggravation that affects the whole society. Therefore, investigating the characteristics of the individuals who attempt or who actually commit the act of suicide becomes relevant.

Thus, by knowing the profile of these individuals, health professionals, especially the nursing team, will be able to create more adequate and targeted coping strategies for the prevention of new cases of suicide deaths.

This study aimed to analyze the characteristics of the individuals who attempted and/or committed suicide in the city of Itapeçerica, Minas Gerais (MG).

## METHODS

Exploratory and descriptive research, focusing on the investigation of the attempts and effectuations of self-extermination in the city of Itapeçerica/MG. The municipality is located in the center-west region of the state of Minas Gerais, with a population of 21,377 inhabitants, divided into 10,603 men and 10,774 women<sup>(10)</sup>.

All individuals residing in Itapeçerica who attempted and/or achieved self-extermination in the period from 2013 to 2015 participated in the study. This period was chosen because the necessary data in the period prior to the current municipal management was not available for consultation. Data were collected from the Municipal Health Department of Itapeçerica-MG, through the Mortality Information System (MIS) and the Diseases and Notification Information System (SINAN), with data sources that contemplated the following variables: gender, age, marital status, schooling, occupation, place of occurrence, date of registration, neighborhood where they lived, Family Health Strategy (FHS) to which they belong and means used to attempt/achieve self-extermination.

The exclusion criterion was the notifications and statements of residents of Itapecerica/MG that committed the act in other municipalities.

A descriptive analysis was carried out, using relative and absolute frequency distribution tables, organized and analyzed in the Excel program, according to the study variables, to characterize the individuals who tried and/or carried out the self-extermination from the conference of all the Death Certificates (DC's), as well as self-extermination notifications.

The work began after the assessment and approval by the Human Research Ethics Committee (CEP) of the State University of Minas Gerais (UEMG) through the opinion number: 1,756,711, CAAE 57235316.6.0000.5115, respecting the regulations described in Resolution # 466, of December 12, 2012, of the National Health Council (CNS). The research used only secondary data and did not need to use the informed consent form (ICF). In addition, an authorization was obtained from the Municipal Health Department to access death certificates and self-extermination notifications.

## RESULTS AND DISCUSSION

The number of analyzed documents totaled 56, being 22 Death Certificates and 34 Notifications. According to the research inclusion and exclusion criteria, three notification documents were excluded because they occurred outside the municipality. Based on the data collected and organized according to the table, the analysis began.

In the period from 2013 to 2015, 22.7% of the 22 Death Declarations due to suicide were women, and 77.3% represented the male gender, showing that men are more affected by self-extermination in relation to women. The highest numbers of these DCs were issued in the year 2015 with 10 deaths declared from suicide. According to gender, the total number of deaths due to self-extermination in men is three times higher in relation to women. According to studies, men also use more harmful methods such as firearms and hanging, while women use less harmful methods such as poisons and medications, and the number of attempts among women is higher<sup>(1,11)</sup>.

This study corroborates other scientific studies, which show that suicide prevails among males<sup>(2,6,11)</sup>. There is less occurrence of

consummation of self-extermination among women, which can be attributed to the low incidence of alcoholism, religiosity, malleable attitudes toward social propensities and the importance of their role throughout life. Women perceive early signs of risk for diseases such as depression, suicide and mental illness, as well as seek help when in crisis and participate in social support networks<sup>(12-14)</sup>.

Regarding suicide reports, the female sex represented 61.3%, while the male sex, only 38.7%. The female sex is more affected by this aggravation, but they reach less success in the consummated act. Men have a lower frequency of attempts, however, they have high mortality rates because they use more aggressive and lethal methods, thus corroborating other studies<sup>(8,14-15)</sup>.

According to the literature, men use methods that are more violent than women because of a greater suicidal intent, because they are aware of more aggressive means and are not so worried about the body image, while women use excessive doses of dangerous substances<sup>(2,8,12,14)</sup>.

Regarding the skin color of the individuals who died, 72.7% were white, 9.1% were black, 18.2% were *pardos*, and the white men prevailed, with 70.6%. Regarding the notifications, the data show that 74.2% were white and 6.5%, black. Observing the prevalence of 89.5% of white women who attempted suicide in the studied period.

Other studies show that the profile of the victims affected by self-extermination are white individuals<sup>(2,8,12)</sup>. However, it differs from another study, in which the *pardo* race prevailed<sup>(6)</sup>.

Regarding the frequency of death certificates and suicide notifications, according to the age range, the most individuals were between 31 and 50 years old with a 50% rate. In the notifications, the same age group prevails, with 45.2% of the analyzed documents.

The data found in this study confirm the result in which the frequencies of the self-extermination cases occur among younger individuals<sup>(12)</sup>.

Among individuals aged 15-44 years, death by self-extermination ranks third among the most frequent causes of death, whose population at highest risk consists of elderly men. However, self-extermination rates have risen among young individuals, thus being considered the highest risk group<sup>(13)</sup>.

Regarding the methods used by the individuals to carry out the attempts and the effectiveness of the deaths, the notifications contained the following methods: medications (70.9%), pesticides (3.2%), rodenticides (3.2%), insecticides (6.5%), solvents (3.2%), alcohols (3.2%) and uninformed (6.5%).

The aforementioned result resembles other studies that showed that the most ingested substance was the medication<sup>(8,12-13)</sup>. Attempts to self-extermination by medication intake are frequent, presenting a higher rate in data analysis and may be occurring due to easy access to medications, thus justifying the choice of this method. In this way, one way to prevent it is to decrease the access to these means<sup>(12-13)</sup>.

The lethality of the means used directly relates to the gender preference to choose the suicide act. Moreover, there is evidence that the decision to take one's own life occurs shortly before the performing the act, especially in younger individuals. This suggests protection for those individuals who use impulsivity to commit the act, so access to lethal methods among individuals at risk should be restricted<sup>(12)</sup>.

As for the methods used in suicide attempts, the use of drugs was frequent, followed by pesticides used domestically or in rural areas, agricultural products and solvents. Therefore, one condition that may favor the acquisition of chemical products by the population is the lack of control over their access, distribution and commercialization in the municipalities<sup>(13)</sup>.

In the death certificates, the most used methods were hanging (90.9%) and use of pesticides (9.1%). According to other studies, the main causes of self-extermination deaths in Brazil are: hanging, firearm injuries, and pesticide auto-intoxication. This large number leads the responsible health unit to invest in the prevention of this act, through health promotion. However, in order to create effective strategies for suicide prevention, professionals need to be aware of the causes of death<sup>(16)</sup>.

The presented data allow concluding that the notifications and death declarations occurred in a diversified form within the municipality, but the three FHSs with the highest incidence of cases were: Antônio Paulino, Lázaro Medeiros and Maria Lúcia Cardoso, all located in peripheral neighborhoods.

Suicidal behavior always says something, including where it occurs, such as at home, that combines elements that point the scene to the

family, that is, the act tends to occur where there are remarkable memories with loved ones<sup>(17)</sup>, and where there is availability and accessibility to the methods<sup>(6,14)</sup>. This study confirms this citation, presenting 13 death certificates and 27 notifications for the individuals' residences.

We identified that the education variable directly affects the individual's quality of life, generating stress and increasing the risk of suicide. This variable can be a protective factor for the act of self-extermination, since it is linked to socioeconomic issues<sup>(12,18)</sup>.

Regarding marital status, the present study presents singles as the individuals with the highest occurrence of death from self-extermination. Literature points to a higher risk of suicide among unmarried, widowed and divorced persons<sup>(2,8)</sup>. These behaviors are related to the difficulties of love relationship, feelings of isolation and low self-esteem that culminate in the ideation and subsequent attempt of suicide<sup>(13)</sup>.

The act of taking one's own life does not usually have a single cause or reason, but can result from a number of related factors, including biological, genetic, psychological, social, cultural, and environmental factors, hindering the understanding of how exposures to the same risk factors involve different behaviors depending on the involved subjects<sup>(6)</sup>.

## FINAL THOUGHTS

This study indicates that the prevalence of suicide deaths occurred in white males aged between 31 and 50 years, being hanging the most commonly used method, which was more frequent among single people and with ignored schooling. In the attempts, women prevailed, also white, in the same age group as the deaths from suicide, the most used method was the medication intake, the item education was ignored. In both the DC's as the notifications, the place of occurrence that prevailed was the individuals' residences.

The attempt of self-extermination as well as the consummated act occurs because of several factors, necessitating, therefore, public policies that improve the population's quality of life, covering all the aspects that lead the individual to a biopsychosocio-spiritual well-being.

This study allowed characterizing the victims affected by the attempts and the

consummated act of self-extermination. Nevertheless, the analyzed documents were incomplete, especially in the DC's, which contained level of education as 'ignored'. There is a gap in the registers of these documents since access to them was not possible in the years prior to 2013.

A limiting factor of this study was the inadequate completion of the analyzed documents, as well as the impossibility of verifying the rate of self-extermination in the municipality and the causes that led the individuals to commit such practice, because the medical records were not accessible.

Therefore, other suicide-related researches should be conducted so that health professionals can know which factors lead the individual to attempt self-extermination, and thus develop follow-up strategies for these individuals in FHSs, in an attempt to intervene before the individual comes to commit such act.

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**Note:** There was no financing. Nursing conclusion course work of the University of the State of Minas Gerais – UEMG, Divinópolis Unit/MG.

**Received in:** 22/12/2016

**Final version resubmitted on:** 14/08/2017

**Approved in:** 15/08/2017

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