

Suicide mortality profile in the state of Ceara, during COVID-19, INTEGRASUS- 2020 to 2021

Suicide mortality profile in the state of Ceara, during COVID-19, INTEGRASUS- 2020 to 2021

Perfil de mortalidad por suicidio del estado de Ceará, durante el COVID-19, INTEGRASUS-2020 a 2021

RESUMO

Objetivo: Identificar o perfil de óbitos por suicídios no estado do Ceará. Métodos: Trata-se de um estudo descritivo com abordagem quantitativa, realizado no sistema IntegraSUS da Secretaria da Saúde do Estado do Ceará, no período de janeiro de 2020 a fevereiro de 2021. Resultados: Constatou-se 1.004 casos de suicídios. Verificou-se que a mortalidade foi maior, nas pessoas do sexo masculino (810), raça parda (843), lesão autoprovocada (895). Conclusão: A partir dos dados, nota-se a construção do perfil de suicídio possibilitando ações de planejamento de promoção da saúde que evitem os casos de suicídio.

DESCRIPTORES: Enfermagem Forense; Registros de mortalidade; Suicídio; Vigilância em Saúde Pública.

ABSTRACT

Objective: To identify the profile of deaths from suicide in the state of Ceará. Methods: This is a descriptive study with a quantitative approach, carried out in the IntegraSUS system of the Health Department of the State of Ceará, from January 2020 to February 2021. Results: It found 1,004 suicide cases. mortality was higher in males (810), mixed race (843), self-harm (895). Conclusion: Based on the data, the construction of the suicide profile is noted, enabling health promotion planning actions that avoid suicide cases.

DESCRIPTORS: Forensic Nursing; Mortality records; Suicide; Public Health Surveillance

RESUMEN

Objetivo: Identificar el perfil de las muertes por suicidio en el estado de Ceará. Métodos: Se trata de un estudio descriptivo con abordaje cuantitativo, realizado en el sistema IntegraSUS de la Secretaría de Salud del Estado de Ceará, de enero de 2020 a febrero de 2021. Resultados: se encontraron 1.004 casos de suicidio, la mortalidad fue mayor en el sexo masculino (810), raza parda (843), autolesiones (895). Conclusión: A partir de los datos, se observa la construcción del perfil suicida, posibilitando la planificación de acciones de promoción de la salud que prevengan los casos de suicidio.

DESCRIPTORES: Enfermería Forense; registros de mortalidad; Suicidio; Vigilancia de la Salud Pública.

RECEBIDO EM: 02/12/21 APROVADO EM: 05/02/22

Ananda Caroline Vasques Dantas Coelho

Nurse. Specialist in Health Management and Hospital Administration. Specialist in Occupational Nursing. Master's student in Collective Health at the State University of Ceará-UECE. Scholarship holder at the Ceará School of Public Health.

ORCID: 0000-0003-3874-2299

João Felipe Tinto Silva.

Bachelor of Nursing at the University Center of Science and Technology of Maranhão (UNIFACEMA). Caxias, Maranhão, Brazil.

ORCID: 0000-0003-3662-6673

Paulo Thiago Gomes da Silva.

Graduating in Bachelor of Medicine at the Catholic University of Pernambuco

ORCID: 0000-0002-3288-6833

Maria Janaina Alves de Azevedo.

Social Worker. Master in Collective Health - State University of Ceará. Specialist in Multiprofessional Residency in Family Health-Universidade Vale do Acaraú. Scholarship at the School of Public Health of Ceará, Brazil.

ORCID: 0000-0003-0835-2863

Gustavo Baroni Araujo.

Bachelor in Physical Education, postgraduate in Collective Health and Women's Health, Master's in Physical Education at Universidade Estadual de Londrina Universidade Estadual de Londrina, Brazil.
ORCID: 0000-0002-3162-7477

Ingrid Mikaela Moreira de Oliveira

Master by the Regional University of Cariri, Crato, Ceará, Brazil. Doctoral student in Clinical Care in Nursing and Health at the State University of Ceará, Fortaleza, Ceará, Brazil. Doctoral Student in Clinical Care in Nursing and Health at the State University of Ceará, Fortaleza, Ceará, Brazil.
ORCID: 0000-0002-8901-362X

Giuliano Araújo Henrique .

Health and Occupational Nursing - Faculdade de Guanambi. Specialization in primary care in family health - UFMS Faculdade de Tecnologia e Ciências FTC - BAHIA, Brazil.
ORCID: 0000-0001-9188-5462

Emmanuella Costa de Azevedo Mello.

Nurse, Master's Student in Decision and Health Models - UFPB.
ORCID: 0000-0001-9747-2992

Julio Cesar Pereira da Silva.

Nursing Student at Universidade Paulista – UNIP. ORCID.
ORCID: 0000-0003-4582-0478

Paloma Silva Pereira.

Nurse at Ceuma University, Imperatriz, Maranhão. Postgraduate student in Intensive Care
ORCID: 0000-0002-5314-0037

INTRODUCTION

Suicide is an act of violence motivated by a self-directed injury in which an individual against himself and the outcome of death. The World Health Organization lists suicide as one of the top ten causes of death globally.¹

There is a permanent discussion in the scientific community about the origin of suicide, where studies point to several sources in the biological, community, social dimensions, among others.²

Since 2019, until the present moment of this study in November 2021, we have experienced the consequent impacts of the COVID-19 pandemic, the fear of contamination of the virus, the loss of friends and family, financial problems and social isolation where all this mental suffering are seeds that can germinate and affect people's mental health to the point that some start suicidal ideation and end up committing suicide.³

In the COVID-19 pandemic scenario, measures to deal with and prevent suicide

should be adopted. In the United States, after being affected by disasters resulting in fatal losses of multiple victims, they adopt the "pulling together effect", that is, family, friends, colleagues, gather in groups and report their experiences about their perspectives, emotions and the way to deal with and give a new meaning to this suffering.⁴

The health care network focuses on assisting people in mourning, being called bereaved survivors who must be supported, welcomed, with a humanized and sensitized listening to the difficult time with various internal and external conflicts.

It is revealed, therefore, that although some individuals are considered centered at all stages of life, children, adults and the elderly present a balance and are considered apt in the context of Mental Health, are exposed to risk factors for ideation/suicide such as the stress caused by the pandemic in changing their routine, work. The daily news since 2019, on social media and television about time the disclosure of the expressive number of contaminated people or increase in deaths of so many lives on a

global level.⁵

The above assumptions, then, allow us to state on the subject the effects of the COVID-19 pandemic, which corroborate that the greater the measure of stress that individuals are exposed to, the greater the need for a health network with structured procedures to care for these patients.

The study aimed to identify the profile of suicide deaths in the state of Ceará, correlating with the problems resulting from the COVID-19 pandemic.

METHODS

This is a descriptive study with a quantitative approach, which aims to act on a human or social problem that is related to data quantification, to prove whether the theory is valid or not based on statistics.⁶

Initially, the search was carried out on the IntegraSUS platform of the Secretary of Health of the State of Ceará, from January 2020 to September 2021, online, with free access.⁷

We then used the access in the tabs:

Indicators -> Surveillance -> Mortality from Suicides, through the link: <https://integrasus.saude.ce.gov.br/#/indicadores/indicadores-vigilancia-saude/situacao-epidemiologica/mortalidade-suicidio>.

Then there was the election of variables having as dependent variable: suicide associated with independent variables: causes, sex, race/ethnicity. The last step consists of arranging the data in simple frequency tables for a better visualization and discussion of the findings.

The research could be approached with secondary data from the IntegraSUS database and, therefore, approval by the Research Ethics Committee was not paramount, but the ethical aspects were respected according to Resolution No. 462/2012 and Resolution No. 510/16.^{8,9}

RESULTS

In total, 1,004 cases of suicide were recorded in the state of Ceara. The triggering causes were classified as self-intoxication and self-inflicted injury, the latter being predominant with 895 cases (Table 1).

Adolescents residing in the city of Fortaleza presented 16 cases of suicidal ideation, of which the majority 15 young people committed suicide with the use of pesticides as the cause of self-intoxication. Thus, it is possible to observe the means or triggering factors that the health team must be aware of in order to provide care in cases of suicide attempts and suicide planning actions.¹⁰

In Brazil, the means used by young people in the period from 2009 to 2016 registered in the Information System of Notifiable Diseases-SINAN, showed variations, with the preponderant poisoning in females aged between 15 and 19 years old.¹¹

In France, the causative agent of 517 suicide attempts, that is, approximately 83.9% of young people under 15 years of age, were induced by the ingestion of medication for personal use by or acquired without permission and prescribed to family members, with a hospitalization rate of 92.6% of these survivors.¹²

There was a predominance of male sui-

Table 1 - Distribution of the number of suicides in Ceara from 2020 to 2021 by causes

Causes	N
Self Intoxication	109
Self-inflicted injury	895
Total	1.004

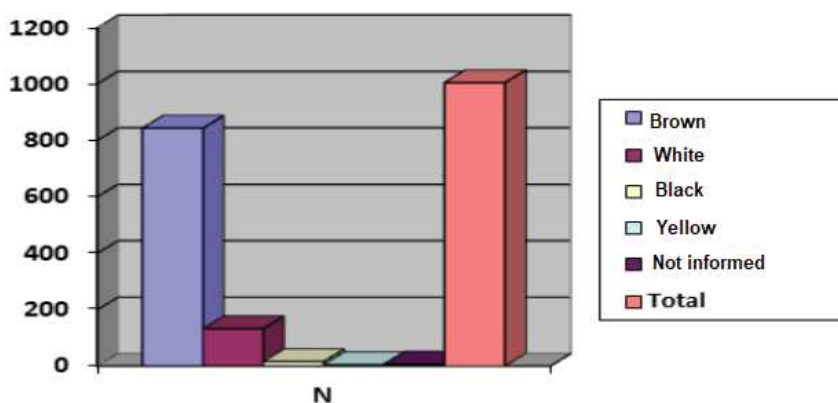
Source: IntegraSUS, 2021

Table 2 - Distribution of the number of suicides in Ceara from 2020 to 2021 by gender

Gender	N
Female	194
Male	810
Total	1.004

Source: IntegraSUS, 2021

Graph 1 - Distribution of the number of suicides in Ceara from 2020 to 2021 by race/ethnicity.



Source: IntegraSUS, 2021

des, with 810 cases in the Ceara population in the period from 2020 to 2021, according to (Table 2).

In the Federal District, as well as in Ceara, males had 51.2% the highest rates of 709 reported intoxications. It was observed that females make a number of suicide attempts in greater events than males, however men adopt means of greater lethality, thus justifying the higher prevalence in males.^{13,14}

Also, regarding the relationship of the variable sex to suicide, it corroborated the probability of males being three times more likely to occur when compared to females, being differentiated and characterized as completed suicide, having, therefore, as an outcome the death different from the number of attempts, the ideation in women.^{15,16}

In another country, as is the case of Ecuador, estimates of suicide in the period from 2001 to 2014 showed a greater tendency to commit suicide, in the age group of 15 to 24 years. This age group corresponds to the life cycle in the transition from teenager to

Table 3 - Suicide rate in Ceara per year.

	2020	2021
Rate	8,1%	*6,3%

Source: IntegraSUS, 2021

young adult. From this stage, the acquisition of greater responsibilities, the pressure and demand in high school or college studies, the search for jobs and a job market, these biological, behavioral and social changes can culminate in suicidal ideation or suicide.¹⁷

The brown race stood out, composing 843 records, followed by the white race 133 and black 16 cases of suicides, yellow 5 records and 7 not informed (Graph 1). The distribution according to race/ethnicity consists of a relevant analysis which is explored worldwide, bringing social and cultural reflections that demand multicausal factors. One can observe the erroneous statement related to the culture in which

the white race, because it is associated with better economic conditions, is not susceptible to suicide.¹⁸

In 2020, the suicide rate in Ceará was 8.1%. It is observed that for the year 2021, the data attributed to the survey were collected from January to September, and therefore, as the year is in progress, this rate may vary, but by itself, is high with 6.3% when compared and coincides with the national suicide rate in 2019 (Table 3).

In Brazil, 6.36/100 thousand inhabitants, in the period between 1997 and 2019 and, therefore, needs an intervention that eliminates or reduces this amount of extinct human lives.¹⁹

In addition to Integratus, the Health Information Systems (SIS) are databases composed of pertinent information on diseases and illnesses related to morbidity and mortality rates. The Mortality Information System (SIM) listed 106,374 deaths from suicide around 2007 and 2016.²⁰

DISCUSSION

From the analysis of the findings, it was possible to build a profile of suicide in Ceará before and during the first year of the COVID-19 pandemic, it was noted that the young Ceará population, the cause of death by self-harm, male, race/ethnicity; in brown color. The suicide rate in the state of Ceará presented significant data that require attention and monitoring in order to reduce and prevent cases through protective measures.

The strategy of tracing an epidemiological profile allows us to reflect on the current context in which people experience the COVID-19 pandemic and the impact on Mental Health that has repercussions on the ideation and completion of suicide, in addition, current data contribute to promoting the identification of suicide risk groups.²¹

Generally, cases of suicide are related to mental disorders, the main ones being: depression, bipolar disorder and drug abuse, as well as other risk factors, such as unemployment, feelings of shame, dishonor, heartbreaks, in addition to a history of mental

Generally, cases of suicide are related to mental disorders, the main ones being: depression, bipolar disorder and drug abuse, as well as other risk factors, such as unemployment, feelings of shame, dishonor, heartbreaks, in addition to a history of mental illness, which intensified in this period of the COVID-19 Pandemic

illness, which intensified in this period of the COVID-19 Pandemic.²²

During the COVID-19 pandemic period that began in 2020, universal strategies were developed for the entire population, with a view to improving mental health and reducing the risk of suicide in the population. In addition, professionals were trained to identify and provide care for people at risk of suicide, but these professionals also received this care, since, in a pandemic period, with few working professionals, there was great pressure from the public system on these health professionals.²³

Although the main theme is directly related to suicide, it was observed that the findings pervade suicide attempts, since the behavior of trying to commit suicide varies in the circumstances, but the frequency event triggers recurrence habits.¹²

Early identification of suicide applies to people who have already attempted suicide, or are considered to be at risk. Monitoring and designing interventions for these people should be part of health strategies that are planned and developed by health entities and professionals, which, for their effectiveness and efficiency, require the participation and collaboration of those involved.²³

Some of the suicide care strategies, such as the implementation of "Yellow October", which is intended for the entire month to intensify suicide prevention actions, is a means of guidance and greater monitoring with risk groups, as well as the National Policy on Mental Health and Suicide Prevention (Law No. 13.819/2019), which offer guidelines and protocols for this care.^{24,25,26}

However, although there are several guides, guidelines and protocols, it is important for professionals and public bodies to be aware of the epidemiological profile of their region and the context in which they are inserted, because there are different realities and the actions to be taken will depend on the local reality.

CONCLUSION

Integratus consisted of a relevant database for academic research that uses a des-

criptive methodology with a quantitative approach, thus making it possible, based on the findings, to guide researchers in studies in the analysis of the variables that characterize suicide.

The contribution of the study makes it possible to guide the actions in three aspects from the deepening of the study and according to the observations of the researchers. They were then proposed; 1- Suicide

Promotion, 2- Survivors and 3- Bereaved Families. Suicide prevention behaviors with educational approaches in communities, the multidisciplinary health team should then think about young people who had suicidal ideation, but will survive so that they are accompanied and guided to seek help in health services when they felt the need for help to deal with the suffering/problem they are experiencing and,

when suicide occurs, it is suggested to offer humanized care, welcoming and providing qualified listening to bereaved families.

It is important to point out that, improving studies on the subject consists of collecting more epidemiological data in order to warn the competent bodies and health professionals to take precautions both in care, and in the development of tools aimed at caring for groups at risk for suicide.²³

REFERENCES

- 1-World Health Organization.2020 Covid-19 and the need for action on mental health Geneva: OMS; [cited 2021 Mai 04]. Available from: <http://unsdg.un.org/sites/default/files/2020-05/UN-Policy-Brief-COVID-19-and-mental-health.pdf>.
- 2- Brasil.Ministério da Saúde. Cartilha de Prevenção ao Suicídio.Disponível em : https://www.arca.fiocruz.br/bitstream/iciict/41420/2/Cartilha_PrevencaoSuicidioPandemia.pdf 2021.
- 3-Ceará.Secretaria da Saúde.IntegraSUS:Ceará;2021 [cited 2021 Mai 04]. Available from: <https://indicadores.integrasus.saude.ce.gov.br/indicadores/indicadores-vigilancia-saude/situacao-epidemiologica/mortalidade-suicidio>.
- 4-Reger M. et al.(2020). Suicide Mortality and Coronavirus Disease 2019 - A Perfect Storm? JAMA Psychiatry, Disponível em: <https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2764584>. Acesso em: 08 de maio de 2021.
- 5-Golberstein, E. et al.2020 Coronavirus disease 2019 (COVID-19) and mental health for children and adolescents. JAMA pediatrics,
- 6-Knechtel, Metodologia da pesquisa em educação: uma abordagem teórico-prácticadialogada. Curitiba: Intersaberes, 2014.
- 7-Ceará.IntegraSUS.Indicadores. Disponível em: <https://integrasus.saude.ce.gov.br/#/home>: acesso em janeiro de 2022.
- 8-Brasil. Ministério da Saúde(2012).Resolução nº4 62/2012. https://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html
- 9-Brasil. Ministério da Saúde(2012).Resolução n 510/16. <http://conselho.saude.gov.br/resolucoes/2016/Reso510.pdf>
- 10-Gondim AP, et.al(2017). Suicide attempts by exposure to toxic agents registered in a Toxicological Information and Assistance Center in Fortaleza, Ceará, Brazil, 2013. Epidemiol Serv Saude. 2017 Jan-Mar;26(1):109-119.
- 11- Brasil. Ministério da Saúde(2021). SINAN. Disponível em : <https://datasus.saude.gov.br/> acesso em 24 de outubro de 2021.
- 12-Giraud P, et.al(2013). Tentativas de suicide: étude descriptive d'une cohorte de 517 adolescents de moins de 15 ans et 3 moi. Arch Pediatr. Jun;20(6):608-15.
- 13-Rebelo, Fernanda Maciel et al(2021). Intoxicação por agrotóxicos no Distrito Federal, Brasil, de 2004 a 2007 - análise da notificação ao Centro de Informação e Assistência Toxicológica. Ciência & Saúde Coletiva [online]. 2011, v. 16, n. 8 [Acessado 24 Outubro 2021] , pp. 3493-3502. Disponível em: <https://doi.org/10.1590/S1413-81232011000900017>
- 14-Cervantes DCA, Contreras M.L. Suicide attempt in teenagers: Associated factors. Rev Chil Pediatr. 2019 Dec;90(6):606-616.
- 15-Brasil. Ministério da Saúde. (2018). Novos dados reforçam a importância da prevenção do suicídio. Recuperado de <https://www.saude.gov.br/noticias/agencia-saude/44404-novos-dados-reforcam-a-importancia-da-prevencao-do-suicidio>.
- 16- Tureki, G., Brent, D. A., Gunnel, D., O'Connor, R. O., Oquendo, M. A., Pirkis, J., & Stanley, B. H. (2019). Suicide and suicide risk. Nat. Rev. Dis. Primer. 74(5), 1-22.
- 17-Gerstner RMF, Soriano I, Sanhueza A, Caffè S, Kestel D.(2018). Epidemiología el suicidio en adolescentes y jóvenes en Ecuador.Rev Panam Salud Publica. 2018 Oct 10;42:e100. Spanish. doi: 10.26633/RPSP.2018.100. PMID: 31093128; PMCID: PMC6385964.
- 18-Dantas AP, Azevedo UN, Nunes AD, Amador AE, Marques MV, Barbosa IR(2018). Analysis of suicide mortality in Brazil: spatial distribution and socioeconomic context. Rev. Bras. Psiquiatr. 2018;40(1):12-18.
- 19- Arruda VL, Freitas BHBM, Marcon SR, Fernandes FY, Lima NVP, Bortolini J. Suicide in young Brazilian adults: 1997-2019 time series. Cien Saude Colet. 2021 Jul;26(7):2699-2708. Portuguese, English. doi: 10.1590/1413-81232021267.08502021. Epub 2021 Apr 16. PMID: 34231683.
- 20- Brasil. Ministério da Saúde(2021). SINAN. Disponível em : <https://datasus.saude.gov.br/> acesso em 24 de outubro de 2021.
- 21-OPAS. Pandemia de Covid-19 aumenta fatores de risco para suicídio. 2020 [Acessado em 09 Novembro de 2021]. Disponível em: <<https://www.paho.org/pt/noticias/10-9-2020-pandemia-covid-19-aumenta-fatores-risco-para-suicidio>>
- 22-Castro SHL et al. Ações de saúde e geração de conhecimento nas ciências médicas 5 [recurso eletrônico] / Organizadores Luis Henrique Almeida Castro, - Ponta Grossa, PR: Atena, 2020.
- 23-Barbosa, B.A. & Teixeira, F.A.F.C. Perfil Epidemiológico e Psi-

cossocial do suicídio no Brasil. *Research, Society and Development*, v. 10, n. 5, e32410515097, 2021 (CC BY 4.0) | ISSN 2525-3409 | DOI: <http://dx.doi.org/10.33448/rsd-v10i5.15097>.

24- Franck, M.C., Monteiro, M.G., Limberger, R.P. Mortalidade por suicídio no Rio Grande do Sul: uma análise transversal dos casos de 2017 e 2018. *Epidemiol. Serv. Saúde* vol.29 no.2 Brasília maio 2020 Epub 24-Abr-2020. DOI: <http://dx.doi.org/10.5123/s1679-49742020000200014>.

25- Taveira, M.L, e Saraiva A. R. . (2021). Mortalidade por suicídio na população idosa do distrito federal, 2010 a 2019. *Saúde Coletiva (Barueri)*, 11(68), 7811–7824. <https://doi.org/10.36489/saudecoletiva.2021v11i68p7811-7824>.

26- Silva , A. L.G. et.al (2020). A utilização de álcool na população adolescente e sua relação com ideias suicidas. *Saúde Coletiva (Barueri)*, 10(58), 4053–4066. <https://doi.org/10.36489/saudecoletiva.2020v10i58p4053-4066>