Original

Sílvia Gayete[1]
Anna Giné[1]
Sandra Marcos[1]
Mª Adela Vidal[3]
Cristina Ventura[1,2]
Susana Ochoa[1,4]

Sociodemographic and Clinical Profile of People Attended in the "Catalonia Suicide Risk Code" Program

[1] Unitat de Docència, Recerca i Innovació. Parc Sanitari Sant Joan de Déu
[2] Centre de Salut Mental de Cornellà. Parc Sanitari Sant Joan de Déu.
[3] Secretaria de dirección de salud mental. Parc Sanitari Sant Joan de Déu.
[4] CIBERSAM

ABSTRACT

Introduction. Suicide is an issue with a great impact on public health. For this reason, the Catalonia Suicide Risk Code (CSRC) protocol was developed in 2015. The aim of this paper is to examine the sociodemographic and clinical profile of patients for whom this protocol was activated between 2016 and 2017 in our reference population.

Methodology. Retrospective descriptive study of recorded data on Suicide Risk Code of our population attended (n=246 in 2016 and n=391 in 2017) in the mental health outpatient services of the Parc Sanitari Sant Joan de Déu being attended previously in the emergency services of any of the hospitals of reference.

Results. The most prevalent profile in both 2016 and 2017 was woman between 40 and 55 years of age with stressful life events. The most prevalent method used was substance abuse.

Conclusions. The data suggest that the health care task should be adjusted to the highest risk profile observed in our reference population, considering stressful live events as significant risk factors which should be taken into account.

Keywords. Suicide, Suicide Attempt, Suicide Risk, Prevention, Risk Factor

Actas Esp Psiquiatr 2022;50(2):114-19

PERFIL SOCIODEMOGRÁFICO Y CLÍNICO DE LAS PERSONAS ATENDIDAS EN EL PROGRAMA "CÓDIGO RIESGO SUICIDIO DE CATALUÑA"

RESUMEN

Introducción. El suicidio es un problema de un gran impacto en la salud pública. Por esta razón, el protocolo del Código de Riesgo Suicidio se desarrolló en Cataluña en 2015. El objetivo de este trabajo es examinar el perfil sociodemográfico y clínico de los pacientes para los que se activó este protocolo entre 2016 y 2017 en nuestra población de referencia.

Metodología. Estudio descriptivo retrospectivo de datos registrados sobre el Código de Riesgo de Suicidio de nuestra población atendida (n = 246 en 2016 y n = 391 en 2017) en los centros de salud mental de adultos del Parc Sanitari Sant Joan de Déu que han sido previamente atendidos en urgencias de alguno de los hospitales del área de referencia.

Resultados. El perfil más frecuente en 2016 y 2017 fue el de una mujer entre 40 y 55 años con acontecimientos vitales estresantes. El método más utilizado fue el abuso de sustancias.

Conclusiones. Los datos sugieren que la tarea asistencial debería ajustarse al perfil de mayor riesgo observado para nuestra población de referencia, considerando los acontecimientos vitales estresantes como factor de riesgo significativos que deben ser considerados.

Palabras clave. *Suicidio, Tentativa Suicidio, Riesgo Suicidio, Prevención, Factor Riesgo.*

INTRODUCTION

Suicide is an issue of great impact on public health. Data from the World Health Organization (WHO) approximately 800,000 people commit suicide per year worldwide[1]; suicide is the second highest cause of death of those between 15

Coautoria: Sílvia Gayete, Anna Giné y Sandra Marcos.
Unitat de Docència, Recerca i Innovació. Parc Sanitari Sant Joan de Déu
Sant Boi de Llobregat 08830 Barcelona (Spain)
e-mails: silvia.gayete@pssjd.org anna.gine@pssjd.org
s.marcos@pssjd.org

and 29 years. In addition, it is estimated that the number of suicide attempts is about 10-20 times higher than the number of those who commit suicide[2]. Specifically, in Spain, in 2017 the total number of deaths due to suicide was 3,679 people[3]. That is why, in recent decades, efforts have been made by health professionals to detect and prevent self-harm behavior.

The WHO defines a suicide attempt as any act by which an individual causes himself or herself an injury or damage with a variable degree of intention to die[4]. A key parameter in the prevention of suicide is the detection of suicidal ideation, which is defined as thoughts of ending one's life that can vary in severity according to the concretion of the suicide plans and the intention to carry them out.

It is known that the greatest predictor of suicide is the presence of a previous attempt, since 35-50% of patients repeat the suicide attempt[5]. Notwithstanding this useful indicator for the detection and prevention of this phenomenon, it is still felt that the real risk to patients is underestimated[2].

Spain was one of the European countries that lacked a national suicide prevention action plan in 2002[2]. However, in recent years, strategies to ease suicide risk detection and speed up linkage to the specialized mental health services of these patients have been implemented in several regions of the country.

In Spain, the first comprehensive plan for suicide prevention (Suicide Behavior Prevention Program) was launched in 2005, led by Carmen Tejedor at the Sant Pau and Santa Creu Hospital (Barcelona)[5]. It was designed for the uptake of patients who had presented self-injurious behavior in the past 48 hours as noted by the ambulatory health-care services. This pilot test, developed with the support of the European Alliance Against Depression (EAAD), was the precedent for the implementation in Catalonia, in 2015, of the Catalonia Suicide Risk Code (CRSC—Codi Risc Suicidi Catalunya—from its acronym in Catalan) protocol. In Spain, other strategies for the prevention and treatment of suicidal behavior have been developed[6], although there were promote for the hospitals but not for whole autonomous community.

Catalonia Suicide Risk Code (CSRC)

CSRC is a Catalonian Health Department protocol implemented in 2015[7]. It is a set of assistance and preventive actions focused on those people who, at the time of contacting the public health system, present a significant risk of suicide. It is designed to improve accessibility and follow-up for these patients at the health services during the critical period after the suicide attempt.

These people arrive to the psychiatric emergency departments with a high suicide risk because of whether suicidal ideation or suicide attempts.

Its goals are to: (a) reduce mortality by suicide, (b) increase the survival of the population attended for suicidal behavior, and (c) prevent suicide attempt recurrence.

CSRC emphasizes assisting the person during the period immediately after the attempt, since it is a critical stage of transition in which the risk of this behavior's recurring is especially high.

For the activation of the protocol and the optimal decision making, it is essential to make a proper assessment of suicide risk. In the case of CSRC, this is done using the MINI suicide scale, which includes a list of risk factors that allow refining of the characteristics and prognosis of the patient.

CSRC is divided into three phases. Phase 1, when suicide risk is detected and assessment first attention is carried out by a specialist in the psychiatric emergency room of a hospital setting. In phase 2, the patient must be attended to an outpatient service within ten days after discharge from the hospital or emergency room. Finally, phase 3 is a longitudinal follow-up of at least 12 months' duration, during which the level of self-harm risk must be reevaluated periodically.

Considering the implementation of the CSRC program in Catalonia, a description of the profile of patients attended will be of help for the assessment and treatment addressed in the program. In this line, taking into account the information collected in our institution[8], the aim of this study is to describe the users' sample of our reference population for which the CSRC was activated in the years 2016-2017.

METHODOLOGY

Design

A retrospective descriptive was carried out considering sociodemographic and clinical profile of patients of the CSRC protocol.

Participants

Parc Sanitari Sant Joan de Déu (PSSJD) has nine adult mental health outpatient services in the province of Barcelona (Castelldefels, Cerdanyola-Ripollet, District of Ciutat Vella

in Barcelona, Cornellà del Llobregat, El Prat del Llobregat, Esplugues del Llobregat, Gavà, Viladecans, and Vilanova i la Geltrú), whose reference population is about 662,195 inhabitants. The sample consists of men and women over 18 years of age for whom CSRC was activated in emergency departments of the reference hospital throughout 2016 and 2017, and who belong to the reference population of the adult mental health outpatient services of PSSJD.

Materials

Clinicians of the mental health outpatient services of PSSJD who attend people registered in the CSRC collected the following variables: age, gender, diagnosis according to ICD-9, number of attempts, types of attempt, risk of suicide level upon activation, diagnosis of prior mental health disorder, substance use, family history of suicide, and psychosocial risk factors. Moreover, number of completed suicides was recorded.

Procedure and design

Data collection was retrospective retrieve by the CSRC computer system of the Generalitat de Catalunya which can be accessed in the mental health centers of the PSSJD. Data analysis was made retrospectively. By means of the collection and assessment of the sociodemographic and clinical variables, a profile comparison was conducted between the CSRC registered patients of 2016 and 2017. The protocol of this study was approved by the Sant Joan de Déu Ethics Committee (PIC-61-71). The information was provided by an external professional who is in charge of data centralization and it was delivered to the researchers in a completely anonymous way.

In this data, information about exitus during the year of activation of the CSRC was recorded.

RESULTS

The sample comprised 259 episodes and 246 patients in 2016, and 422 episodes and 391 patients in 2017. As shown in Table 1, 62.6% of the sample in 2016 (246 patients) and 63% in 2017 (391 patients) were women. Likewise, the most prevalent age interval was 40 to 55 years old, of which 67% in 2016 and 59.3% in 2017 were women; 13% in 2016 and 15.4% in 2017 lived alone, and 24% in 2016 and 27% in 2017 had social problems such as isolation, lack of support, and/or financial problems. Only 4.1% in 2016 and 3% in 2017 had a family history of consummated suicide; 63.8% in 2016 and 62% in 2017 suffered from stressful life events (e.g. work, marital, family...); and 36.2% in 2016 and 35% in 2017 suffered from a previous mental disorder.

Table 1 Sociodemographic data of the sample (2016-2017)

	2016 (n=246)	2017 (n=391)
Sex:		
- Female	154 (62,6)	248 (63,4)
- Male	92 (37,4)	143 (36,6)
Age:		
- 18-24	26 (10,6)	49 (12,5)
- 25-39	58 (23,6)	92 (23,5)
- 40-55	105 (42,7)	164 (41,9)
- 56-65	26 (10,6)	43 (11,0)
- ≥ 66	31 (12,6)	43 (11,0)
Stressful life events:		
- Yes	157 (63,8)	241 (61,6)
- No	87 (35,4)	150 (38,4)
- No data	2 (0,8)	–

As shown in Table 2, a total of 157 (63.8%) in 2016 and 255 (65.2%) in 2017 did not have a previous mental health diagnosis. Focusing on cases that suffered from a previous mental disorder (89 in 2016 and 136 in 2017), it was found that 69% in 2016 and 61% in 2017 were women. The most prevalent diagnosis, 40% in 2016 and 43.4% in 2017, was affective disorders (bipolar and depressive), followed by 20% adjustment disorders in 2016 and 21.3% personality disorders in 2017. Of these, 86% in 2016 and 81.6% in 2017 made a suicide attempt. Regarding the method, 64% in 2016 and 50% in 2017 used substance abuse.

Of the total sample, people who made more than one attempt were analyzed (33 in 2016 and 50 in 2017). Most of them (88% in 2016 and 70% in 2017) were women. Some 70% in 2016 and 64% in 2017 made two attempts and the predominant diagnosis was adjustment disorder. People who attempted suicide more than three times were women.

In the episodes analyzed (259 in 2016 and 422 in 2017), the suicide risk level was low at discharge in 52.5% of people in 2016 and 35% in 2017, which generally coincides with a diagnosis of adjustment disorder. Some 26% in 2016 and 18% in 2017 presented a moderate risk at discharge with diagnoses of adjustment disorder and depressive disorder in 2017 and psychotic disorder and substance abuse disorder in 2016.

The attempt manner used was substance abuse for 69.5% of the sample in 2016 and 61.3% in 2017. Some 7.7% in 2016 and 6.8% in 2017 of attempts were made with

Table 2 Diagnostic data of the sample (2016-2017)

	2016 (n=246)	2017 (n=391)
No prior mental health disorder:	157 (63,8)	255 (65,2)
Prior mental health disorder:	89 (36,2)	136 (34,8)
- Psychotic disorder	14 (15,7)	15 (11,0)
- Affective disorder	36 (40,4)	59 (43,4)
- Personality disorder	16 (18,0)	29 (21,3)
- Adjustment disorder	18 (20,2)	28 (20,6)
- Substance abuse	1 (1,1)	2 (1,5)
- Others	4 (4,5)	3 (2,2)

sharp instruments; 5% in 2016 and 3.3% in 2017 were with hanging and/or precipitation. For 17% of the sample in 2016 and 12.3% in 2017, there was no apparent risk of repeated attempts.

In the sample analyzed, during the 2016 one woman died. She was diagnosed with adjustment disorder, had a previous mental disorder, and used substance abuse as a suicide method. Among the patients recorded in the CSRC during 2017, two women and one man died, with diagnoses of bipolar disorder (method: sharp instruments), depressive disorder (method: solid or liquid substance poisoning), and personality disorder (method: solid or liquid substance poisoning) respectively. All of them suffered from a previous mental disorder and made a single attempt with a high level of risk.

DISCUSSION

Through the study of the CSRC users' sample in our reference population, we analyzed the sociodemographic and clinical profiles, comparing 2016 and 2017. First, it was observed that both sociodemographic and clinical data analyzed were consistent throughout both years, representing a stable population profile.

Regarding the sample sociodemographic data, there was a main profile of women between 40 and 55 years of age with stressful life events associated with the attempt. This profile is similar to that found by others researchers (2,9,10)

When considering the clinical profile, it was found that approximately 3-4 out of 10 cases had a prior diagnosed mental disorder. Those people who are already being previously attended in adult outpatient mental health services, and consequently with a previous mental health diagnosis recorded in their medical history, are receiving integral attention which includes the risk of suicide. In this line, the service attention of these patients was delivered from the mental health centers. If, despite this, they go to the emergency department, urgent care is scheduled at their outpatient service. It is probable that our sample presents a low percentage of people with a previous mental health diagnosis for this reason.

The CSRC program was created in order to detect and assist people at risk of suicide and to refer them to specialized mental health care. So, those people who do not have contact with the mental health network, and therefore usually do not have any mental health diagnosis in their medical history, should go to the emergency department when presenting ideation or autolytic attempts. Consequently, many of the new cases do not have a previously diagnosed mental disorder.

According to the data in our sample and in agreement with other studies, it is observed that stressful life events represent, in the presence or absence of a previous mental disorder, a key risk factor of suicide (10,11).

Despite the high number of people attended in the emergency hospitals without a previous diagnosis of mental health, patients who consummated suicide did suffer from a mental health disorder, in line with other studies (12,13). Regarding patients who had a previous mental health disorder, the most prevalent diagnosis was affective disorder for both years. Similar results were found in recent studies (13-15). Moreover, the most prevalent method used was substance abuse, consistent with other findings in our region (10,16).

The increase in cases detected in 2017 compared to 2016 stands out. Possibly, because CSRC was implemented in 2015, the protocol was not as well established in the mental health network and consequently had a lower number of cases. Instead, in 2017 it was already a program better known by mental health professionals and used in all services.

Data provided by this study suggests on a healthcare level, that the preventive and health promotion task should adjust more specifically to the higher risk profile observed for our reference population. Therefore, it is considered that this task will have special relevance for the primary care field, influencing the exploration of these patients, as also suggested in literature (17). Our data suggests that

situations where life events are present increase the risk of suicide, so in the context of pandemic by Covid-19 attention to suicide risk should be highly considered (18,19).

However, this study has several limitations. Firstly, since it is a retrospective study in which data were collected by different professionals during daily clinical practice (at the time of the code activation), accuracy and consistency in data compilation cannot be guaranteed. Secondary, the nosological classification used in the CSRC protocol was ICD-9, despite there being newer editions of the same manual. In spite of this, it is estimated that data are sufficiently reliable since they were obtained through a computerized assistance protocol validated by the Catalonia Generalitat (Regional Administration) and completed by professionals of the mental health field. Finally, the information about deaths for suicide was only available during the year of activation of CSRC.

Due to the early implementation of the protocol, greater knowledge of the instrument is required by the professionals who use it in their healthcare practice. Likewise, we consider that it would be valuable to monitor linkage to services and clinical factors of the patients for whom CSRC has been activated. It would also be of interesting to learn whether there is a reduction of the self-harm risk level in the follow-up after specialized clinical intervention. Similarly, it would be appropriate to replicate this work in order to observe possible changes in the patient profile and/or attempts over time in other institutions of mental health.

CONCLUSIONS

The main sociodemographic profile of patients for whom CSRC was activated between 2016 and 2017 in our reference population was: women between 40 and 55 years of age with stressful life events associated with the attempt. Among patients who had a previous mental health disorder, the most prevalent diagnosis was affective disorder and the most prevalent method used was substance abuse. Stressful life events represent a key risk factor of suicide.

CONFLICT OF INTEREST

None.

FUNDING

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

REFERENCES

1. Organización Mundial de la Salud (OMS). Suicidio. [Internet]. [Consultado 22 Mar 2021]. Disponible en: https://www.who.int/es/news-room/fact-sheets/detail/suicide

2. Bobes J, Giner J, Sainz J. Suicidio y Psiquiatría: Recomendaciones preventivas y de manejo del comportamiento suicida. Madrid: Editorial Triacastela; 2011

3. Instituto de Estadística de Cataluña. Suicidios: Por sexo y provincias. [Internet]. [Consultado 22 Mar 2021]. Disponible en: https://www.idescat.cat/pub/?id=aec&tn=616&tlang=es&tt=2017

4. World Health Organization (WHO). Preventing Suicide: a Global Imperative. WHO; 2014.

5. Tejedor C, Faus G, Díaz A, Pérez V, Solà I. Resultados del programa de prevención de la conducta suicida. Distrito de la Dreta de l'Eixample de Barcelona. Actas Esp Psiquiatr. 2011;39(5):280-7.

6. Grupo de Trabajo de la Guía de Práctica Clínica de Prevención y Tratamiento de la Conducta Suicida. [Internet]. [Consultado 23 Mar 2021]. Disponible en: https://portal.guiasalud.es/wp-content/uploads/2019/01/GPC_481_Conducta_Suicida_Avaliat_compl.pdf

7. Scientia: Dipòsit d'Informació Digital del Departament de Salut. Atenció a les Persones en Risc de Suïcidi: Codi Risc Suïcidi (CRS). [Internet]. [Consultado 23 Mar 2021]. Disponible en: https://scientiasalut.gencat.cat/handle/11351/1654?locale-attribute=es

8. Ventura C, Aparicio S, Vidal MA, García-Pedrajas C, Villaescusa R. El código de riesgo suicidio: una herramienta para la detección, prevención y tratamiento de la conducta suicida. Libro de Actas del X Congreso Internacional y XV Nacional de Psicología Clínica. 2017;330.

9. Pérez V, Elices M, Prat B, Vieta E, Blanch J, Alonso J, et al. The Catalonia Suicide Risk Code: A secondary prevention program for individuals at risk of suicide. J Affect Disord. 2020;268:201-5.

10. Burón P, Jiménez-Trevino L, Saiz PA, García-Portilla MP, Corcoran P, Carli V, et al. Reasons for Attempted Suicide in Europe: Prevalence, Associated Factors, and Risk of Repetition. Arch Suicide Res. 2016;20(1):45-58.

11. Bagge, CL, Glenn, CR, Lee, HJ. Quantifying the impact of recent negative life events on suicide attempts. Journal of Abnormal Psychology. 2013;122(2):359–68.

12. Hubers, AAM, Moaddine S, Peersmann SHM, Stijnen T, Van Duijn E, Van der Mast RC, et al. Suicidal ideation and subsequent completed suicide in both psychiatric and non-psychiatric populations: a meta-analysis. Epidemiology and psychiatric sciences. 2018;27(2):186.

13. Bachmann S. Epidemiology of suicide and the psychiatric perspective. Int J Environ Res Public Health. 2018;15(7):1425.

14. Plesnipbar BK, Zalar I, Mertik M, Zalar B. Suicide and suicide attempt descriptors by multimethod approach. Psychiatr Danub. 2018;30(3):317-22.

15. Hawton K, Casañas I, Comabella C, Haw C, Saunders K. Risk factors for suicide in individuals with depression: A systematic review. J Affect Disord. 2013;147(1-3):17-28.

16. Villar-Cabeza F, Castellano-Tejedor C, Sánchez-Fernández B, Verge-Muñoz M, Blasco-Blasco T. Perfiles psicológicos del adolescente con conducta suicida. Rev Psiquiatr Infanto-Juvenil. 2017;34(1):7-18.

17. Cross WF, West JC, Pisani AR, Crean HF, Nielsen JL, Kay AH, et al. A randomized controlled trial of suicide prevention training for primary care providers: A study protocol. BMC Med Educ. 2019;19(1).

18. Gunnell D, Appleby L, Arensman E, Hawton K, John A, Kapur N et al. Suicide risk and prevention during the COVID-19 pandemic. The Lancet Psychiatry. 2020;7(6):468-471.

19. McIntyre R, Lee Y. Preventing suicide in the context of the COVID -19 pandemic. World Psychiatry. 2020;19(2):250-251.