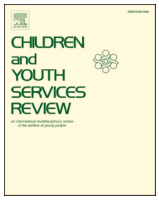
Children and Youth Services Review 158 (2024) 107465

Contents lists available at ScienceDirect

Children and Youth Services Review

journal homepage: www.elsevier.com/locate/childyouth



Suicidal behavior and deliberate self-harm: A major challenge for youth residential care in Spain

Alexander Muela [a,*], Jon García-Ormaza [b,c,d], Eneko Sansinenea [a]

[a] Department of Clinical and Health Psychology and Research Methodology, University of the Basque Country UPV/EHU, Spain
[b] Biobizkaia Health Research Institute, Bilbao, Bizkaia, Spain
[c] Bizkaia Mental Health Network, Osakidetza Basque Health Service, Zamudio Hospital, Zamudio, Spain
[d] Department of Neurosciences, University of the Basque Country UPV/EHU, Leioa, Bizkaia, Spain

ARTICLE INFO

Keywords:
Suicide
Youth suicide
Deliberate self-harm
Residential child care
Out-of-home placement

ABSTRACT

The aim of this study was to characterize and determine the incidence of suicidal behavior and deliberate self-harm among youth in residential care in Spain, and to explore the perceived knowledge and competence of direct care professionals with regard to recognizing and managing suicide risk. The sample comprised 185 adolescents aged between 12 and 18 years ($M = 15.41$, SD = 1.58; 49.7 % male, 49.2 % female, and 1.1 % non-binary) and 225 direct care professionals ($M_{age} = 34.58$, $SD = 13.72$). We found a high rate of suicidal behavior (36.2 % of adolescents reported suicidal ideation and 26.5 % had made a lifetime suicide attempt), and only a third of young people who had thoughts about suicide had sought help. Half of the adolescent sample had engaged in deliberate self-harm. Among direct care professionals, there was a perceived lack of knowledge with respect to recognizing and managing suicide risk behavior. Adolescents in residential care are a risk population that should be targeted with specific interventions aimed at preventing suicidal behavior. Training for professionals is also needed to ensure they have the skills required to ask young people about suicidal thoughts or intentions and to engage them with appropriate support services.

1. Introduction

Suicide among adolescents and youth is a global public health problem (World Health Organization, 2021). Although suicide is uncommon during childhood and puberty, rates increase with age and peak in early adulthood. Data for our country, Spain, indicate that among young people aged 15–29 years, suicide is the leading cause of non-natural death and the second leading cause of all deaths, after malignant tumors (Nacional & de Estadística, 2022).

Adolescents and youth who have entered residential care present a number of risk factors for suicidal behavior, insofar as many of them have experienced childhood trauma and show signs of psychopathology (Muela, Balluerka, Amiano, Caldentey, & Aliri, 2017) or poor social adjustment, including an insecure attachment style, low self-esteem, poor social skills, risk behaviors, low social connectedness, and poor school integration (Águila-Otero, Bravo, Santos, & Del Valle, 2020; Muela, Balluerka, & Torres, 2013, Muela, Torres, & Balluerka, 2012). However, little research has been conducted in Spain with the aim of determining the extent of the problem of suicidal behavior in the context of youth residential care. Furthermore, it is unknown whether professionals in this setting perceive themselves as being competent to deal with and prevent suicidal behavior among the young people they work with. Consequently, the aim of the present study was to characterize and determine the incidence of suicidal behavior in the context of youth residential care in Spain, and to explore the perceived competence of direct care professionals with regard to recognizing and managing it.

1.1. Suicidal behavior in adolescence and youth

Suicide can be defined as a deliberate act carried out with the aim of taking one's life and resulting in death. Recent *meta*-analyses and systematic reviews (Glenn et al., 2019; Roh, Jung, & Hong, 2018) report suicide rates across both sexes and for young people aged 15–19 years of around 3.8 per 100,000 individuals, although there is considerable heterogeneity across countries. Suicidal behavior includes thoughts about suicide (suicidal ideation), talking to others about a wish to die,

* Corresponding author at: Department of Clinical and Health Psychology and Research Methodology, University of the Basque Country UPV/EHU, Spain.
E-mail addresses: alexander.muela@ehu.eus (A. Muela), jon.garciaormaza@osakidetza.eus, jon.garcia@ehu.eus (J. García-Ormaza), eneko.sansinenea@ehu.eus (E. Sansinenea).

https://doi.org/10.1016/j.childyouth.2024.107465
Received 13 February 2023; Received in revised form 15 January 2024; Accepted 16 January 2024
Available online 17 January 2024

self-harm behaviors engaged in with the aim taking one's own life, and attempted suicide. A broader definition of suicidal behavior would also include deliberate self-harm (DSH), that is, direct self-destruction or alteration of body tissue carried out without the intention of ending one's life, and whose primary function is to mitigate psychological suffering or communicate it to others. Although DSH (also referred to as non-suicidal self-injury) has been closely linked to suicidal behavior, and while it is true that many people who commit suicide will have previously engaged in self-harm, there are considered to be important differences between suicidal behavior and DSH (Walsh, 2012). Both suicidal behavior and deliberate self-harm (DSH) are more common among young people than is completed suicide (Nock et al., 2008).

While government statistics do not record suicide attempts, research has estimated that in the 15–24-year old age group, there are 100–200 attempts for every completed suicide (Miller, 2021). As occurs in general suicide data across all age groups, the pattern in the youth population is for more suicide attempts among females (3–9 times more), whereas males show higher rates of completed suicide (3–4 times higher) (Glenn et al., 2019).

Although suicide in the youth population is a complex and multi-causal phenomenon (Glenn et al., 2019), it generally occurs when certain life stressors and mental health factors converge to leave a young person with a sense of hopelessness, despair, and social isolation. Research suggests that the most important predictor of completed suicide in youth is a history of suicide attempts (Gvion & Apter, 2016), while DSH is considered one of the main predictors for attempted suicide (Ougrin, Tranah, Stahl, Moran, & Asarnow, 2015). Although the majority of adolescents who think about suicide or who engage in DSH will not attempt to take their own life, the risk of a suicide attempt is higher when both factors are present (Mars et al., 2019). A recent longitudinal study (Mars et al., 2019) found that approximately 1 in 5 (21 %) adolescents who reported both suicidal thoughts and DSH at age 16 reported having attempted suicide when followed up at age 21, compared with just 1 % of those who did not report either suicidal thoughts or DSH at age 16.

1.2. Suicidal behavior in adolescents and youth who have entered the child welfare system

Only a small number of studies have explored suicidal behavior in adolescents and youth who have entered the child welfare system, but it is generally considered that the incidence of suicidal behavior and death by suicide is higher than in the non-child welfare population. In a comparison of young people in care and non-care populations, Evans et al. (2017) found in the former a higher prevalence of both suicidal ideation (24.7 % *vs*. 11.4 %) and suicide attempts (3.6 % *vs*. 0.8 %). An earlier study by Pilowsky and Wu (2006) similarly observed higher rates of attempted suicide (4 times higher) among young people with a lifetime history of foster care. With regard to completed suicide, research has found that the rate of death by suicide is between 2 and 6 times higher among young people with a history of being in the child welfare system (Christoffersen, Møhl, DePanfilis, & Vammen, 2015; Katz, Au, Singal, Brownell, Roos, Martens, Chateau, Enns, Kozyrskyj, & Sareen, 2011; Rhodes et al., 2012; Vinnerljung, Hjern, & Lindblad, 2006).

To our knowledge, no comparative studies of this kind have been conducted in Spain, although researchers have drawn attention to the problem of suicidal behavior in the youth residential care population. Bonet, Palma, and Santos (2020) reported high rates of suicidal ideation in a sample of 61 adolescents in residential care, while a study by Águila-Otero et al. (2020) involving 353 young people in therapeutic residential care found that almost a quarter had a lifetime history of attempted suicide, with females being twice as likely as males to report this.

1.3. The present study

It is clear from the above review that suicidal behavior is a serious public health problem that affects a considerable number of young people. Children and adolescents who have entered the child welfare system are recognized as being a high-risk group for this behavior (Ruch et al., 2021), and those in residential care are an especially vulnerable population (Muela et al., 2017, 2021).

The latest data for Spain (de la Infancia, 2021) show that a total of 16,177 young people are in some form of residential care, and 13,303 of these are aged between 11 and 17 years. Recent research in our country has drawn attention to the problem of suicidal behavior in this population, highlighting the need to target resources and strategies to address it (Águila-Otero et al., 2020; Bonet et al., 2020; Tavares-Rodrígues, González-García, Bravo, & Del Valle, 2019). We believe, however, that in order to develop effective interventions, further studies are needed to provide a fuller picture of the problem. The study by Águila-Otero et al. (2020) is probably the most detailed attempt so far to examine the profile of Spanish youth in care, including the incidence of suicidal behavior, although it focused exclusively on young people in therapeutic residential units, who account for just 6 % of the total population of children and adolescents in the child protection system. Accordingly, there is a need for more information about the youth care population as a whole, exploring a broad range of variables such as attempted suicide, the number of attempts and the methods used, suicidal ideation and suicide plans, the incidence of mental health problems and DSH, and help seeking.

We are also unaware of any research in Spain focusing on professionals in the youth residential care sector and which explores their knowledge, attitudes, and beliefs about suicidal behavior, their perceived competence in recognizing and managing suicide risk, or their awareness of community resources aimed at suicide prevention. Given that professionals' ability to identify a young person at risk and to intervene appropriately is crucial for avoiding a tragic outcome, it is important to understand more about their perceived knowledge and competence in this regard.

The aim of this study was therefore to characterize and determine the incidence of suicidal behavior in the context of youth residential care in Spain, and to explore the perceived knowledge and competence of professionals with regard to recognizing and managing it. We believe that the findings will help to develop more effective suicide prevention policies and interventions for young people in residential care.

2. Method

2.1. Participants

The youth sample comprised 185 adolescents aged between 12 and 18 years ($M = 15.41$, SD = 1.58; 49.7 % male, 49.2 % female, and 1.1 % non-binary) who were currently placed in 25 residential care units in the Basque Country (northern Spain). The majority (69.7 %) of these units were classified as general, while the remainder (30.3 %) provided therapeutic residential care. General residential care units are designed to provide a safe environment in which to promote the wellbeing and support the physical, psychological, social, and educational development of young people who do not require more specialist programs to address their psychosocial and behavioral needs (Spanish Government (2015), 2015). By contrast, therapeutic residential care implies a "multidimensional living environment designed to enhance or provide treatment, education, socialization, support, and protection to children and youth with identified mental health or behavioral needs in partnership with their families and in collaboration with a full spectrum of community-based formal and informal helping resources" (Whittaker et al., 2015, p. 24).

Regarding nationality, 58.4 % of the adolescents were Spanish. Of the 41.6 % who were foreign nationals, 55.8 % were originally from North Africa, 15.6 % from South America, 7.8 % from sub-Saharan Africa, 6.5 % from Central America, and the remainder from countries in eastern and south-eastern Europe, the Caribbean, and Asia. Overall,

29.2 % of the total sample were unaccompanied foreign minors, while 12.4 % were foreign minors with one or more family members resident in Spain.

Table 1 shows the sociodemographic characteristics of the adolescents who took part in the study.

The study sample also included 225 direct care professionals (M_{age} = 34.58 years, SD = 13.72; 69.7 % male, 29.9 % female, 0.4 % non-binary) currently employed in either a general (67.7 %) or therapeutic (32.3 %) residential care unit for children and adolescents, located in a total of five provinces across northern Spain.

To check that the sample was large enough to detect effects of reasonable magnitude when applying the statistical tests required by the study objectives (see Data analysis section below), we used the G*Power software (Faul, Erdfelder, Lang, & Buchner, 2007) to calculate the sample size required for an alpha of 0.05 and power of 0.80. The calculation confirmed that the sample was sufficient.

2.2. Instruments

2.2.1. Suicidal behavior and deliberate self-harm in adolescents

Lifetime suicidal behavior and DSH in adolescents was assessed with the Adolescent Suicidal Behavior Assessment Scale (SENTIA; Díez-Gómez, Pérez-Albéniz, Ortuño-Sierra, & Fonseca-Pedrero, 2020), a self-report tool that explores the presence of suicidal ideation, suicide communication, and suicide planning and attempts. The SENTIA comprises a total of 16 items with a dichotomous (yes/no) response format, but given the objectives of the present study we only used five of these items. The incidence of suicidal ideation was explored with the item "*Have you ever thought about taking your life*?", while for suicide attempts we used the item "*Have you tried to take your own life*?". In the event that a young person answered yes to the latter question, the questionnaire then asked them to indicate the number of attempts made and the method used. Deliberate self-harm was assessed with the item "*Have you ever deliberately hurt yourself (self-harm: cutting, piercing skin, etc.) without intending to die*?", and if they answered yes, they were asked to describe their reasons for doing so. Finally, help seeking was explored through two items: "*Have you tried to ask for help when faced with thoughts of suicide*?" and "*Have you thought that you can't ask anyone for help (with these thoughts about taking your life)*?". Internal consistency for these items in the present sample was 0.81 (Cronbach's alpha).

2.2.2. Mental health problems

In line with Fried (2022), we consider that mental health problems are best conceptualized as complex, biopsychosocial processes that unfold in individuals over time. For the purposes of the present study, we asked the clinical and/or educational staff of the residential care units to indicate whether the adolescents who participated had, at the time of the study, a diagnosed mental health problem and/or were receiving psychiatric or psychological treatment of any kind.

Table 1
Sociodemographic characteristics of adolescents (n = 185).

Variable	*n*	% (unless otherwise specified)
Gender		
Male	92	49.7
Female	91	49.2
Non-binary	2	1.1
Age, years [mean (SD)]		15.41 (1.58)
12–14	54	29.2
15–16	81	43.8
17–18	50	27.0
Nationality		
Spanish	108	58.4
Other	77	41.6
Residential care unit		
General	129	69.7
Therapeutic	56	30.3

2.2.3. Perceived knowledge among professionals about suicidal behavior

Knowledge about suicidal behavior among direct care professionals, that is, their perceived ability to recognize and manage a suicide risk, was explored with a questionnaire created ad hoc for the present study. The questionnaire comprised eight items (e.g., "*I know how to recognize the warning signs for suicide in a young person*"), for each of which the professional had to rate their perceived level of knowledge using a 5-point Likert-type scale ranging from 1 ("Very low") to 5 ("High"). Internal consistency in the present sample was 0.89 (Cronbach's alpha).

2.2.4. Perceived self-efficacy among professionals with respect to suicidal behavior

The perceived self-efficacy of professionals with regard to recognizing and managing a suicide risk was similarly assessed with a questionnaire created ad hoc for the present study. The questionnaire comprised seven items (e.g., "*I am confident in my ability to ask and/or talk to a young person about suicidal thoughts*"), for each of which the professional had to rate their perceived level of competence using a 5-point Likert-type scale ranging from 1 ("Very low") to 5 ("High"). They also had the option of answering "Not sure/do not wish to answer". Internal consistency in the present sample was 0.93 (Cronbach's alpha).

2.3. Procedure

We began by contacting child protection services across several provinces of northern Spain, explaining the research objectives and inviting them to take part. Those who accepted and who granted approval for the research to go ahead contacted the managers of youth residential care units in their area, explaining the purposes of the study and requesting their collaboration. Those who agreed were then contacted directly by the research team in order to provide further details and proceed with the study. All participants (both adolescents and professionals) gave informed consent prior to any data collection.

Adolescents who met the inclusion criterion (age 12–18 years) and who agreed to participate completed the SENTIA individually (one at a time) in a private room within the care unit where they were residing. All responses were given electronically via a computer as the questionnaire was hosted online. For each respondent we also recorded their age, gender, and nationality. Research suggests that the online approach is as reliable as face-to-face methods, whether in normative or clinical populations (Chandler & Shapiro, 2016; Hauser & Schwarz, 2016). Furthermore, an online questionnaire is particularly useful for assessing stigmatized behaviors such as suicide and self-harm, insofar as it minimizes the social desirability that can bias the results obtained through face-to-face and/or group test administrations (Fox et al., 2020). Although recent research suggests that asking young people about suicide does not increase their risk of suicide (Fox et al., 2020), we nevertheless took steps to ensure their emotional wellbeing. Specifically, a member of the care unit staff was available both during and after completing the questionnaire to offer emotional support as necessary. In the case of unaccompanied foreign minors with a limited grasp of written Spanish, a native speaker of their first language was on hand to act as a translator whenever necessary. Similarly, any adolescents with a recognized intellectual disability were assisted by their key worker in the event of any comprehension problems when responding to the questionnaire.

The procedure for gathering data from professionals was the same, that is, they completed the online questionnaire (electronically via a computer) on an individual and one-by-one basis in a private room within their place of work. All responses were anonymous.

The study was approved by the Human Research Ethics Committee of

the lead author's university.

2.4. Data analysis

For the bivariate analysis of nominal variables, we used Pearson's chi-squared test to compare observed and expected frequencies. The strength of relationships and their significance was evaluated by calculating, respectively, Cramer's *V* coefficient and the standardized residuals. For quantitative variables, the Student's *t* test was used to examine differences between means for the different criterion variables. The effect size associated with any differences between means was assessed by calculating Cohen's *d*. For the comparison of more than two groups, we performed one-way ANOVA, using partial eta squared (η^2p) to estimate effect size. For dichotomous variables, we also computed Pearson correlation coefficients for two-way contingency tables.

All data analyses were performed using SPSS 26.0.

3. Results

Table 2 shows the frequency of suicidal behavior, DSH, and mental health problems among the 185 adolescents.

3.1. Suicidal ideation

Suicidal ideation was reported by 36.2 % of the adolescents. Results from the Pearson χ^2 test revealed significant differences by gender ($\chi^2(1) = 24.82$; $p = .0001$; Cramer's $V = 0.37$), and the standardized residuals indicated that the proportion of females who reported suicidal ideation was higher than expected. More than half of females (53.8 %) reported lifetime suicidal ideation, compared with just 18.5 % of males. There were no significant differences in the frequency of suicidal ideation by age group ($\chi^2(2) = 2.97$; $p = .226$; Cramer's $V = 0.13$), nationality ($\chi^2(1) = 0.75$; $p = .388$; Cramer's $V = 0.06$), or type of residential care unit ($\chi^2(1) = 2.57$; $p = .109$; Cramer's $V = 0.11$).

It is important to note that among those adolescents who reported suicidal ideation, 62.7 % did not seek help with these thoughts, and 53.7 % felt they could not ask anyone for help. These proportions did not differ significantly by age, gender or nationality.

3.2. Suicide attempts

Around a quarter of adolescents (26.5 %) had attempted suicide at some point. The average number of attempts was three, and the most common method involved use of a sharp object (37.1 %), followed by poisoning (27 %), jumping from height (18 %), and the potentially most lethal methods, namely hanging (6.7 %) and drowning (5.6 %). It can be seen in Fig. 1 that suicidal behavior becomes notably more frequent from age 13, reaching a peak around 16 years. Importantly, we found that two of every three adolescents (68.7 %) who reported suicidal ideation also said they had attempted suicide.

Regarding gender, suicide attempts were reported significantly more often by females ($\chi^2(1) = 22.56$; $p = .0001$; Cramer's $V = 0.35$), and the analysis of standardized residuals indicated that the proportion of females who had attempted suicide was greater than expected. Of the total number of adolescents who reported a suicide attempt, 77.6 % were female, 20.4 % were male, and 2 % were non-binary, in other words, females were over three times more likely than males to attempt suicide.

There were no significant differences in the frequency of suicide attempts by age group ($\chi^2(2) = 1.99$; $p = .37$; Cramer's $V = 0.10$), nationality ($\chi^2(1) = 0.02$; $p = .89$; Cramer's $V = 0.01$), or type of residential care unit ($\chi^2(1) = 0.44$; $p = .51$; Cramer's $V = 0.05$). Neither were there statistically significant differences in the total number of suicide attempts between general and therapeutic residential care units ($t(45) = 0.33$; $p = .74$; $d = 0.11$), between Spanish and foreign nationals ($t(45) = -1.08$; $p = .29$; $d = 0.32$) or across age groups, $F(2,44) = 0.37$; $p = .69$; $\eta^2p = 0.02$.

Table 2
Suicidal behavior, deliberate self-harm, and mental health problems among adolescents.

	Total (*n* = 185)	Male (*n* = 92)	Female (*n* = 91)	Non-binary (*n* = 2)
Variable	*n* (%)	*n* (%)	*n* (%)	*n* (%)
Suicidal ideation	67 (36.2)	17 (18.5)	49 (53.8)	1 (50)
Asked for help with thoughts of suicide	25 (37.3)	4 (23.5)	20 (40.8)	1 (100)
Thought they could not ask anyone for help	36 (53.7)	7 (41.2)	29 (59.2)	0 (0)
Suicide attempt	49 (26.5)	10 (10.9)	38 (41.8)	1 (50)
Deliberate self-harm	93 (50.3)	26 (28.3)	65 (71.4)	2 (100)
Mental health problems	64 (34.6)	25 (27.2)	37 (40.7)	2 (100)

3.3. Deliberate self-harm (DSH)

Half of the sample of adolescents had engaged in DSH at some point. As in the case of suicidal ideation and suicide attempts, the incidence of DSH increased from age 13 and peaked around 16 years (see Fig. 1). With respect to the reasons given for self-harm, the large majority of adolescents (92 %) referred to it as an emotion regulation strategy (i.e., relieving tension and stress, coping with anxiety and negative feelings, distraction from unpleasant memories); only a small proportion described their self-harm in terms of sensation-seeking (5.3 %) or attention-seeking (2.7 %). Notably, the pattern in reporting of DSH differed by gender. Among males, the peak incidence of DSH was reached around age 14 (see Fig. 2), whereas among females the peak occurred at 16 years (see Fig. 3).

We also observed a significant and positive relationship between DSH and both suicidal ideation ($r = 0.55$; $p = .0001$) and suicide attempts ($r = 0.52$; $p = .0001$). Overall, 95.7 % of adolescents who reported suicidal ideation and 93.9 % of those who said they had attempted suicide also reported engaging in DSH. Females were also significantly more likely to report DSH ($\chi^2(1) = 36.10$; $p = .0001$; Cramer's $V = 0.44$), and the analysis of standardized residuals indicated that the proportion of females who had engaged in DSH was greater than expected. Of the total number of adolescents who reported having self-harmed, 69.9 % were female, 28.0 % were male, and 2.1 % were non-binary, in other words, two of every three adolescents in our sample who self-harmed were female.

There were no significant differences in the frequency of DSH by age group ($\chi^2(2) = 0.001$; $p = .99$; Cramer's $V = 0.01$), nationality ($\chi^2(1) = 1.97$; $p = .16$; Cramer's $V = 0.10$), or type of residential care unit ($\chi^2(1) = 1.52$; $p = .22$; Cramer's $V = 0.09$).

3.4. Mental health problems and suicidal behavior

Around a third of the adolescents in our sample (34.6 %) were receiving psychiatric and pharmacological treatment for a diagnosed mental health problem. No differences in the proportion of diagnosed mental health problems were observed by gender ($\chi^2(1) = 2.90$; $p = .23$; Cramer's $V = 0.14$), nationality ($\chi^2(1) = 3.26$; $p = .07$; Cramer's $V = 0.15$) or age group ($\chi^2(2) = 4.49$; $p = .11$; Cramer's $V = 0.17$). However, adolescents in general residential care units were less likely to have a diagnosed mental health problem than were their peers in therapeutic units ($\chi^2(1) = 18.10$; $p = .0001$; Cramer's $V = 0.34$).

Importantly, adolescents with a diagnosed mental health problem were more likely to report suicidal ideation ($\chi^2(1) = 27.67$; $p = .0001$; Cramer's $V = 0.42$), to have engaged in DSH ($\chi^2(1) = 15.82$; $p = .0001$; Cramer's $V = 0.32$), and to have attempted suicide ($\chi^2(1) = 21.23$; $p = .0001$; Cramer's $V = 0.37$) than were their peers without such a problem. It should be noted, however, that 48.4 % of adolescents with a diagnosed mental health problem had not made a suicide attempt, while 16.7 % of those without a diagnosis of this kind had nevertheless

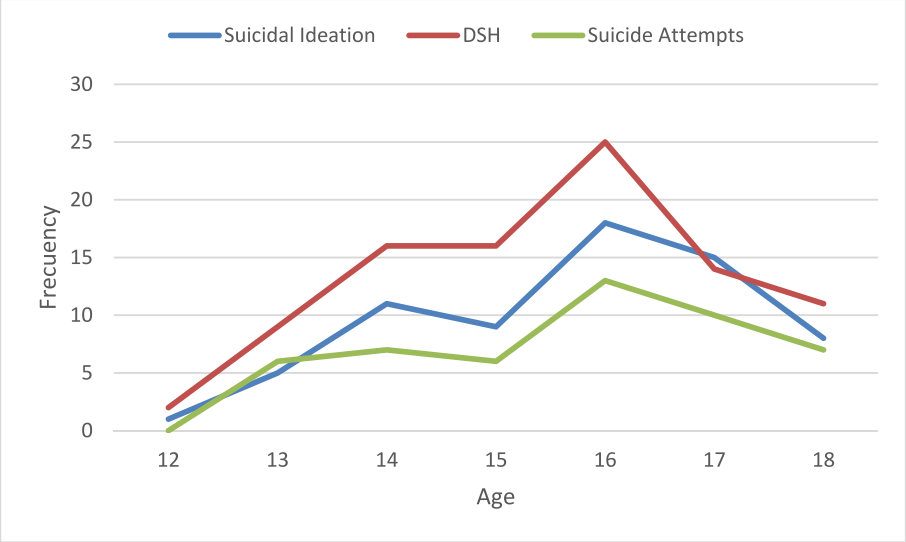


Fig. 1. Suicidal behavior and deliberate self-harm in the total sample.

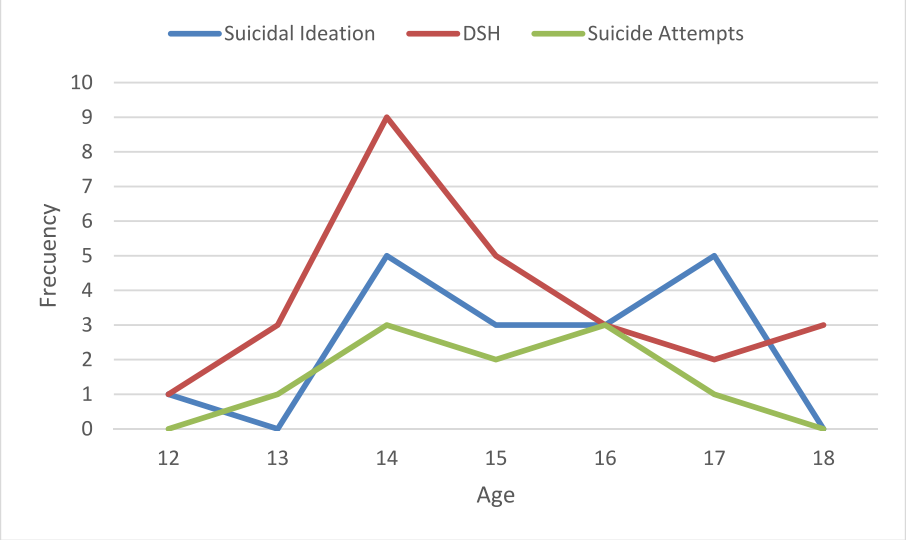


Fig. 2. Suicidal behavior and deliberate self-harm in males.

attempted suicide.

3.5. Perceived knowledge and self-efficacy of professionals with respect to suicidal behavior

Overall, only 22.8 % of the direct care professionals we surveyed considered that they had a fairly high or high level of knowledge with regard to recognizing and managing suicide risk behavior. It can be seen in Table 3 that the areas where perceived knowledge was lowest concerned knowing what action is required when there is a risk of suicide, how to ask and/or talk to a young person about suicidal thoughts, what to do in the event that a youth in their unit died by suicide, and how to recognize the warning signs for suicide risk. Perceived knowledge was greater with respect to offering help and support when a young person was identified as a suicide risk and knowing where to refer them for specialist help.

In contrast to the results for perceived knowledge, almost two-thirds of professionals (63.9 %) considered themselves to have a fairly high or high level of competence when it came to recognizing and managing suicide risk behavior. It can be seen in Table 4 that professionals were least confident about their ability to take appropriate action if a young person in their unit dies by suicide, or to intervene when a youth is at risk of suicide. Perceived competence was highest with respect to comforting and containing a young person who is emotionally distressed.

4. Discussion

The aim of this study was to characterize and determine the incidence of suicidal behavior in the youth residential care context in Spain, and to explore the perceived knowledge and competence of direct care professionals with regard to recognizing and managing suicide risk.

Suicidal behavior appears to be common in this population, insofar as 36.2 % of the adolescents in our sample reported suicidal ideation and 26.5 % had made a lifetime suicide attempt. This percentage for suicidal ideation is higher than the estimated prevalence reported previously in the residential care context (Evans et al., 2017). Although the factors associated with the development of suicidal thoughts are considered to be distinct from those involved in the transition from thoughts to attempts, around a third of adolescents with suicidal thoughts

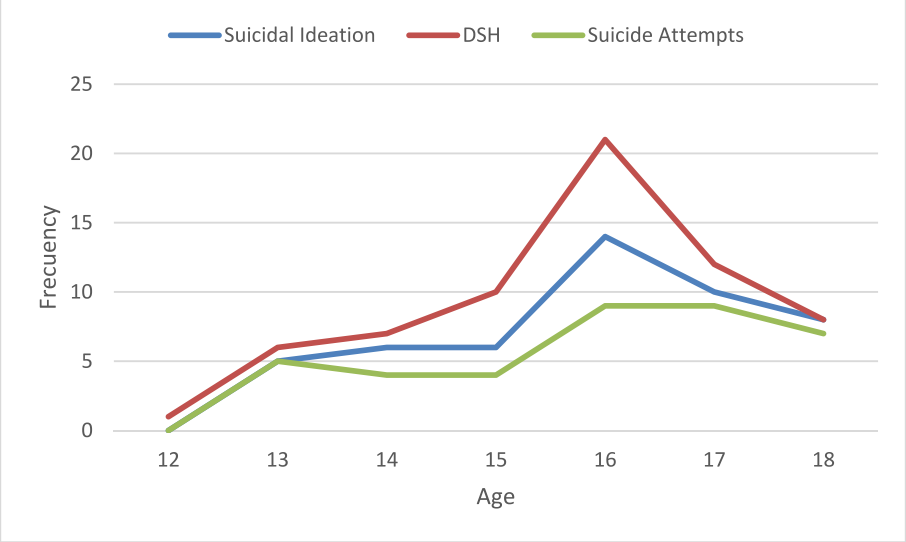


Fig. 3. Suicidal behavior and deliberate self-harm in females.

Table 3
Perceived level of knowledge among professionals about suicidal behavior.

	Very low (%)	Low (%)	Average (%)	Fairly high (%)	High (%)
I know how to recognize the warning signs for suicide in a young person.	11.6	36.2	43.5	7.7	1
I know how to ask and/or talk to young people about suicidal thoughts.	19.3	41.1	32.4	5.8	1.4
I know what action is required when there is a risk of suicide.	23.7	38.2	30	7.2	1
I know how to comfort and contain a young person who is emotionally distressed.	3.9	13	34.8	44.4	3.9
I know how to offer help and support when a young person is at risk of suicide.	13	28	38.6	18.4	1.9
I know how and where to refer a young person for specialist professional help.	13	19.3	26.1	33.8	7.7
I know what action is required if a young person in my unit attempts suicide.	13.1	26.2	29.1	25.7	5.8
I know what action is required if a young person in my unit dies by suicide.	33.8	25.6	24.2	12.1	4.3

nevertheless go on to attempt suicide (Mars et al., 2019). Suicidal ideation should therefore be regarded as a warning sign for the risk of more serious suicidal behavior, especially if it occurs in the presence of other psychosocial factors (academic pressures, bullying, poor social adjustment, mental health problems, etc.) and/or DSH (Mars et al., 2019). In these circumstances, the ability of a young person to seek help becomes crucial, and it is therefore of concern that among the adolescents we surveyed who reported suicidal ideation, only one in three (37.3 %) had sought help with these thoughts and more than half (53.7 %) felt that they could not ask anyone for help. These findings may reflect the stigma that is still associated with mental health problems in general, and with suicide in particular, as well as widespread myths or misconceptions about these issues. For instance, it is possible that adolescents equated their having suicidal thoughts as a sign of *weakness* or *mental illness*, or as something dangerous and uncontrollable. It might also be that they lacked trust in community services that could potentially provide help or support (Muela et al., 2021). In our view, these results highlight the need to foster a culture of health promotion and protection within youth residential care units, destigmatizing suicidal behavior and encouraging young people to adopt a more proactive attitude toward coping with their difficulties.

A striking finding of the present study is the high rate of lifetime suicide attempts (26.5 %). This draws attention both to the extent of serious suicidal behavior in the residential care context, as well as to the need to develop structured prevention strategies, insofar as the most important predictor of completed suicide in youth is a history of suicide attempts (Gvion & Apter, 2016). In the present sample, suicidal behavior became notably more frequent from age 13, with the proportion of adolescents who reported suicidal ideation and attempts peaking around 16 years. These results are in line with epidemiological data from other countries showing that rates of death by suicide for youth involved in the child welfare system increase exponentially from around 12 years of age (Ruch, Munir, Steelesmith, Bridge, & Fontanella, 2023). Together these findings underline the need to design early intervention strategies for identifying youth at risk and preventing suicide within the residential care population.

Importantly, half of the adolescents in our sample reported having engaged in DSH, primarily as an emotion regulation strategy. This is a high percentage, comparable with that reported in clinical populations (Brown & Plener, 2017). It should be remembered that DSH is an important risk factor for suicide, with research indicating that those who self-harm are 2–4 times more likely to experience suicidal thoughts or to attempt suicide (Klonsky, May, & Glenn, 2013). Effective management of DSH should therefore be a core aim of youth residential care, and may include psychoeducation to help young people develop more adaptive emotion regulation strategies, as well as measures to prevent social learning or emotional contagion of self-harm behaviors.

As in a number of previous studies (Bresin & Schoenleber, 2015; Glenn et al., 2019; Miranda-Mendizábal et al., 2019), we also found that compared with their male peers, young females were more likely to report suicidal ideation (3 times more), to have attempted suicide (almost 4 times more), and to have engaged in DSH (2.5 times more). While one might conclude that more resources should therefore be targeted at young females in care, rates of completed suicide are reported to be higher among males (Glenn et al., 2019; Miranda-

Table 4
Perceived self-efficacy among professionals with respect to suicidal behavior.

	Very low (%)	Low (%)	Average (%)	Fairly high (%)	High (%)	Not sure/ did not wish to answer (%)
I am confident in my ability to recognize the warning signs for suicide in a young person.	7.7	5.9	20.5	49.5	14.1	2.3
I am confident in my ability to ask and/or talk to a young person about suicidal thoughts.	7.7	2.3	22.7	39.1	25.9	2.3
I am confident in my ability to take appropriate action when there is a risk of suicide.	7.7	5.9	29.1	36.4	19.1	1.8
I am confident in my ability to comfort and contain a young person who is emotionally distressed.	7.7	0.5	11.8	24.1	48.6	7.3
I am confident in my ability to offer help and support when a young person is at risk of suicide.	7.8	4.1	16.9	33.3	33.3	4.6
I am confident in my ability to take appropriate action if a young person in my unit attempts suicide.	0	5.4	19.6	30.4	39.2	5.4
I am confident in my ability to take appropriate action if a young person in my unit dies by suicide.	7.8	11	22.8	34.7	19.6	4.1

Mendizábal et al., 2019). Consequently, and despite our findings, we believe that structured prevention strategies are appropriate, provided that certain aspects are tailored by gender. Among males, greater emphasis would need to be placed on developing their help-seeking skills, limiting access to lethal weapons, raising their awareness of warning signs, enhancing their coping skills, and teaching them how to build a more effective social support network. In the case of females, a primary focus of intervention would be on developing more adaptive emotion regulation strategies so as to minimize their use of self-harm behaviors.

Various studies have highlighted the high prevalence of mental health problems among young people in residential care (Muela et al., 2017), and this was reflected in the present results, especially among adolescents in therapeutic care units. In line with the literature (Gili et al., 2018), we found that adolescents with a diagnosed mental health problem were more likely to report suicidal ideation, to have engaged in DSH, and to have attempted suicide. Specifically, 51.6 % of adolescents with a diagnosed mental health problem had attempted suicide, a figure similar to that reported in other recent studies (Ruch et al., 2021). These results provide further support for the consideration of mental health problems as an important risk factor for suicidal behavior (Gili et al., 2018) and show the need for early detection of such problems, as well as the systematic use of tools to screen for suicide risk. It should also be noted that among adolescents in our sample without a diagnosed mental health problem, 16.7 % had nevertheless attempted suicide. This underscores the multifactorial and biopsychosocial nature of suicidal behavior and the need to take into account a range of factors (e.g., mental distress, hopelessness, social connectedness, beliefs about suicide) so as to capture the complexity of the process from ideation to action (Klonsky, Saffer, & Bryan, 2018). Interestingly, we found no difference in the frequency of suicidal behavior between adolescents in general versus therapeutic residential care units. This shows that such behavior is not limited to those young people with more serious psychological or behavioral problems and highlights the importance of implementing suicide prevention strategies across all levels of the residential care system, not least as it is estimated that between 30 % and 80 % of adolescents who enter the child welfare system have mental health problems, developmental delay or other issues requiring input from health services (Bronsard et al., 2016; Burns et al., 2004).

Reducing the number of deaths by suicide is a priority objective of the World Health Organization (2021). In our view, the key to preventing suicidal behavior in the residential care context is to ensure that young people have access to adequate psychotherapeutic and social and educational support. Although adolescents involved in the residential care system in Spain do have access to mental health services, our results suggest that more needs to be done to prevent suicidal behavior. The evidence from other countries paints a similar picture. For example, Ruch et al. (2021) found that 48 % of youth in the U.S. child welfare system who died by suicide used some kind of health care service in the month before their death, and almost 90 % did so in the preceding six months. These results suggest that existing psychiatric and psychological interventions may be failing to address some of the mechanisms underlying suicidal behavior; in fact, a *meta*-analysis of 50 years of suicide research (Franklin et al., 2017) concluded that traditional risk factors, including psychiatric diagnoses, are limited in their ability to predict suicidal behavior, and hence they are not a firm basis for treatment and prevention strategies. Accordingly, it has been argued that more focused approaches are needed, for example, cognitive-behavioral therapy aimed specifically at suicide prevention, which has been associated with a 50–60 % reduction in suicide attempts (Bryan & Rudd, 2018).

Turning to the direct care professionals we surveyed, our results indicate a perceived lack of knowledge with respect to recognizing and managing suicide risk behavior. This was most notable with respect to recognizing the warning signs for suicide, knowing how to ask and/or talk to a young person about suicidal thoughts, and knowing what action to take when there is a risk of suicide. This highlights the need for professionals to receive specific training on these issues. It is noteworthy, however, that despite their perceived lack of knowledge, the majority of professionals we surveyed reported feeling relatively confident about their ability to respond in situations of suicide risk. In our view, this apparent incongruence between perceived knowledge and confidence could be due to the fact that the residential care units in which they work have established protocols for managing suicidal behavior. Thus, while professionals as individuals may consider they lack knowledge, they also feel sufficiently confident about their ability to respond according to the institutional protocol, for example, referring a young person to specialist services in the event that a suicide risk is detected. It should be emphasized, however, that protocols of this kind are not primarily designed as preventive measures but rather serve as a guide for staff in the event that suicidal behavior is enacted. In this

respect, our results regarding a perceived lack of knowledge highlight the importance of distinguishing professionals' ability to implement response protocols from their need for training in suicide prevention strategies, which would enhance their capacity to intervene proactively. One way of addressing this need would be through the implementation of gatekeeper suicide prevention programs, a core goal of which is to educate professionals about common myths and misconceptions about suicide and suicidal behavior, the warning signs they need to look out for, and the resources and support services that are available. These programs also aim to equip professionals with the skills needed to ask young people about suicidal thoughts and/or intentions, to persuade them to seek help, and to direct them to a suitable specialist service. A good example of such a program is Question, Persuade, and Refer (Institute, 2022), which is listed in the Evidence-Based Practices Resource Center of the Substance Abuse and Mental Health Services Administration (SAMHSA), as well as being designated a *program with evidence of effectiveness* by the Suicide Prevention Resource Center (SPRC). A final point to note here concerns the high rate of DSH we observed among the adolescents surveyed. This underlines the need within residential care facilities to establish strategies for detecting and managing these behaviors, both to help the young person concerned and also to prevent social learning and emotional contagion within the unit. These strategies would need to be developed and implemented in collaboration with specialist mental health services.

The present study has a number of limitations, the most important of which concerns the representativeness of the sample. Although we checked that the sample size was sufficient for the statistical analyses conducted, the results should nevertheless be interpreted with caution until they are corroborated in larger samples covering a wider geographical area. Indeed, because all the adolescents we surveyed were in residential care in the Basque Country, it is unclear whether the findings are extrapolatable to the rest of Spain. However, because the Basque Country is geographically and demographically diverse, we believe that the results are likely to be relevant to youth residential care populations in other regions of the country. A further limitation is that DSH was assessed via a single item. Future studies should therefore aim for a more precise assessment of this variable through instruments such as the Deliberate Self-Harm Inventory (Gratz, 2001) or the Inventory of Statements About Self-Injury (Klonsky & Glenn, 2009). A further task for research in the adolescent residential care setting would be to examine more closely the relationship between suicidal behavior and variables such as mental distress, hopelessness, the perception of being a burden, social connectedness, and beliefs about suicide. Identifying the key factors associated with suicidal behavior and DSH would provide a framework for risk assessments that could be carried out when a young person enters residential care and, where necessary, at intervals during their stay. This would help to target early preventive intervention at the most at-risk adolescents.

5. Conclusions

This study found high rates of suicidal behavior and DSH among adolescents in residential care. The fact that only a third of young people who reported suicidal ideation had sought help with these thoughts highlights the importance of specific psychoeducational initiatives to address this. Early intervention is also key, insofar as suicidal behavior became notably more frequent from age 13, with the proportion of adolescents who reported suicidal ideation and attempts peaking around 16 years.

As regards direct care professionals, the results indicated a perceived lack of knowledge with respect to recognizing and managing suicide risk behavior, as well as scope for improvement in their perceived competence in dealing with this issue.

In summary, adolescents in both general and therapeutic residential care settings are a risk population that should be targeted with specific interventions aimed at preventing suicidal behavior. Ensuring that professionals have the skills required to enquire about suicidal thoughts or intentions and to direct a young person at risk toward appropriate specialist services is likewise key to effective suicide prevention.

6. Ethics approval statement

The study was approved by the Ethics Committee for Research on Human Beings of the University of the Basque Country.

Funding statement

This research was funded by a grant from the Basque Government (IT1450-22).

CRediT authorship contribution statement

Alexander Muela: Conceptualization, Investigation, Methodology, Formal analysis, Writting – original draft, Writing – review & editing. **Jon García-Ormaza:** Conceptualization, Investigation, Supervision, Writting – original draft, Validation. **Eneko Sansinenea:** Data curation, Funding acquisition, Project administration, Resources, Supervision, Validation, Visualization, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

References

Águila-Otero, A., Bravo, A., Santos, I., & Del Valle, J. F. (2020). Addressing the most damaged adolescents in the child protection system: An analysis of the profiles of young people in therapeutic residential care. *Children and Youth Services Review, 112*, Article 104923. https://doi.org/10.1016/j.childyouth.2020.104923

Bonet, C., Palma, C., & Santos, G. G. (2020). Effectiveness of emotional intelligence therapy on suicide risk among adolescents in residential care. *International Journal of Psychology and Psychological Therapy, 20*(1), 61–74.

Bresin, K., & Schoenleber, M. (2015). Gender differences in the prevalence of nonsuicidal self-injury: A meta-analysis. *Clinical Psychology Review, 38*, 55–64. https://doi.org/10.1016/j.cpr.2015.02.009

Bronsard, G., Alessandrini, M., Fond, G., Loundou, A., Auquier, P., Tordjman, S., & Boyer, L. (2016). The prevalence of mental disorders among children and adolescents in the child welfare system: A systematic review and meta-analysis. *Medicine, 95*(7). https://doi.org/10.1097/MD.0000000000002622

Brown, R. C., & Plener, P. L. (2017). Non-suicidal self-injury in adolescence. *Current Psychiatry Reports, 19*(3), 1–8. https://doi.org/10.1007/s11920-017-0767-9

Bryan, C. J., & Rudd, M. D. (2018). *Brief cognitive-behavioral therapy for suicide prevention*. Guilford Publications.

Burns, B. J., Phillips, S. D., Wagner, H. R., Barth, R. P., Kolko, D. J., Campbell, Y., & Landsverk, J. (2004). Mental health need and access to mental health services by youths involved with child welfare: A national survey. *Journal of the American Academy of Child & Adolescent Psychiatry, 43*(8), 960–970. https://doi.org/10.1097/01.chi.0000127590.95585.65

Chandler, J., & Shapiro, D. (2016). Conducting clinical research using crowdsourced convenience samples. *Annual Review of Clinical Psychology, 12*, 53–81. https://doi.org/10.1146/annurev-clinpsy-021815-093623

Christoffersen, M. N., Møhl, B., DePanfilis, D., & Vammen, K. S. (2015). Non-suicidal self-injury: Does social support make a difference? An epidemiological investigation of a Danish national sample. *Child Abuse & Neglect, 44*, 106–116. https://doi.org/10.1016/j.chiabu.2014.10.023

Díez-Gómez, A., Pérez-Albéniz, A., Ortuño-Sierra, J., & Fonseca-Pedrero, E. (2020). SENTIA: An adolescent suicidal behavior assessment scale. *Psicothema, 32*, 382-389. https://doi:10.7334/psicothema2020.27.

Evans, R., White, J., Turley, R., Slater, T., Morgan, H., Strange, H., & Scourfield, J. (2017). Comparison of suicidal ideation, suicide attempt and suicide in children and young people in care and non-care populations: Systematic review and meta-analysis of prevalence. *Children and Youth Services Review, 82*, 122–129. https://doi.org/10.1016/j.childyouth.2017.09.020

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175–191. https://doi.org/10.3758/BF03193146

Fox, K. R., Harris, J. A., Wang, S. B., Millner, A. J., Deming, C. A., & Nock, M. K. (2020). Self-injurious thoughts and behaviors interview–Revised: Development, reliability, and validity. *Psychological Assessment, 32*(7), 677–689. https://doi.org/10.1037/pas0000819

Franklin, J. C., Ribeiro, J. D., Fox, K. R., Bentley, K. H., Kleiman, E. M., Huang, X., … Nock, M. K. (2017). Risk factors for suicidal thoughts and behaviors: A meta-analysis of 50 years of research. *Psychological Bulletin, 143*(2), 187–232. https://doi.org/10.1037/bul0000084

Fried, E. I. (2022). Studying mental health problems as systems, not syndromes. *Current Directions in Psychological Science, 31*(6), 500–508. https://doi.org/10.1177/09637214221114089

Gili, M., Castellví, P., Vives, M., de la Torre-Luque, A., Almenara, J., Blasco, M. J., … Roca, M. (2018). Mental disorders as risk factors for suicidal behavior in young people: A meta-analysis and systematic review of longitudinal studies. *Journal of Affective Disorders, 15*(8), 152–162. https://doi.org/10.1016/j.jad.2018.10.115

Glenn, C. R., Kleiman, E. M., Kellerman, J., Pollak, O., Cha, C. B., Esposito, E. C., … Boatman, A. E. (2019). Annual research review: A meta-analytic review of worldwide suicide rates in adolescents. *Journal of Child Psychology and Psychiatry, 61*(3), 294–308. https://doi.org/10.1111/jcpp.13106

Gratz, K. L. (2001). Measurement of deliberate self-harm: Preliminary data on the Deliberate Self-Harm Inventory. *Journal of Psychopathology and Behavioral Assessment, 23*, 253–263. 10.1023/A:1012779403943.

Gvion, Y., & Apter, A. (2016). Evidence-based prevention and treatment of suicidal behavior in children and adolescents. In R. C. O'Connor, & J. Pirkis (Eds.), *The international handbook of suicide prevention* (pp. 301–322). John Wiley & Sons.

Hauser, D. J., & Schwarz, N. (2016). Attentive Turkers: MTurk participants perform better on online attention checks than do subject pool participants. *Behavior Research Methods, 48*, 400–407. https://doi.org/10.3758/s13428-015-0578-z

Instituto Nacional de Estadística, INE [Spanish Statistical Office] (2022). https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176780&menu=resultados&idp=1254735573175#!tabs-1254736194710/.

Katz, L. Y., Au, W., Singal, D., Brownell, M., Roos, N., Martens, P. J., Chateau, D., Enns, M. W., Kozyrskyj, A. L., & Sareen, J. (2011). Suicide and suicide attempts in children and adolescents in the child welfare system. *Canadian Medical Association Journal*, cmaj-110749. https://doi.org/10.1503/cmaj.110749.

Klonsky, E. D., & Glenn, C. R. (2009). Assessing the functions of non-suicidal self-injury: Psychometric properties of the Inventory of Statements About Self-injury (ISAS). *Journal of Psychopathology and Behavioral Assessment, 31*, 215–219. https://doi.org/10.1007/s10862-008-9107-z

Klonsky, E. D., May, A. M., & Glenn, C. R. (2013). The relationship between nonsuicidal self-injury and attempted suicide: Converging evidence from four samples. *Journal of Abnormal Psychology, 122*(1), 231–237. https://doi.org/10.1037/a0030278

Klonsky, E. D., Saffer, B. Y., & Bryan, C. J. (2018). Ideation-to-action theories of suicide: A conceptual and empirical update. *Current Opinion in Psychology, 22*, 38–43.

Mars, B., Heron, J., Klonsky, E. D., Moran, P., O'Connor, R. C., Tilling, K., … Gunnell, D. (2019). Predictors of future suicide attempt among adolescents with suicidal thoughts or non-suicidal self-harm: A population-based birth cohort study. *Lancet Psychiatry, 6*(4), 327–337. https://doi.org/10.1016/S2215-0366(19)30030-6

Miller, D. N. (2021). *Child and adolescent suicidal behavior: School-based prevention, assessment, and intervention*. The Guilford Press.

Miranda-Mendizábal, A., Castellví, P., Parés-Badell, O., Alayo, I., Almenara, J., Alonso, I., … Alonso, J. (2019). Gender differences in suicidal behavior in adolescents and young adults: Systematic review and meta-analysis of longitudinal studies. *International Journal of Public Health, 64*(2), 265–283. https://doi.org/10.1007/s00038-018-1196-1

Muela, A., Torres, B., & Balluerka, N. (2012). Estilo de apego y psicopatología en adolescentes víctimas de maltrato infantil [Attachment style and psychopathology in adolescent victims of child maltreatment]. *Infancia y Aprendizaje, 35*(4), 451–469. https://doi.org/10.1174/021037012803495294

Muela, A., Balluerka, N., & Torres, B. (2013). Ajuste social y escolar de jóvenes víctimas de maltrato infantil en situación de acogimiento residencial [Social and school adjustment of child abuse victims in residential care]. *Anales de Psicología, 29*(1), 197–206. https://doi.org/10.6018/analesps.29.1.124941

Muela, A., Balluerka, N., Amiano, N., Caldentey, M. A., & Aliri, J. (2017). Animal-assisted psychotherapy for young people with behavioural problems in residential care. *Clinical Psychology & Psychotherapy, 24*(6), 1485–1494. 10.1002/cpp.2112.

Muela, A., Balluerka, N., Sansinenea, E., Machimbarrena, J. M., García-Ormaza, J., Ibarretxe, N., … Baigorri, P. (2021). A social-emotional learning program for suicide prevention through animal-assisted intervention. *Animals, 11*(12), 3375. https://doi.org/10.3390/ani11123375

Nock, M. K., Borges, G., Bromet, E. J., Cha, C. B., Kessler, R. C., & Lee, S. (2008). Suicide and suicidal behavior. *Epidemiologic Reviews, 30*(1), 133–154. https://doi.org/10.1093/epirev/mxn002

Observatorio de la Infancia [Spanish National Observatory on Childhood] (2021). https://observatoriodelainfancia.mdsocialesa2030.gob.es/estadisticas/estadisticas/home.htm.

Ougrin, D., Tranah, T., Stahl, D., Moran, P., & Asarnow, J. R. (2015). Therapeutic interventions for suicide attempts and self-harm in adolescents: Systematic review and meta-analysis. *Journal of the American Academy of Child & Adolescent Psychiatry, 54*(2), 97–107. https://doi.org/10.1016/j.jaac.2014.10.009

Pilowsky, D. J., & Wu, L. T. (2006). Psychiatric symptoms and substance use disorders in a nationally representative sample of American adolescents involved with foster care. *Journal of Adolescent Health, 38*(4), 351–358. https://doi.org/10.1016/j.jadohealth.2005.06.014

QPR Institute (2022). Available from http://www.qprinstitute.com/.

Rhodes, A. E., Boyle, M. H., Bethell, J., Wekerle, C., Goodman, D., Tonmyr, L., … Manion, I. (2012). Child maltreatment and onset of emergency department presentations for suicide-related behaviors. *Child Abuse & Neglect, 36*(6), 542–551. https://doi.org/10.1016/j.chiabu.2012.04.006

Roh, B. R., Jung, E. H., & Hong, H. J. (2018). A comparative study of suicide rates among 10–19-year-olds in 29 OECD countries. *Psychiatry Investigation, 15*(4), 376–383. 10.30773/pi.2017.08.02.

Ruch, D. A., Munir, A., Steelesmith, D. L., Bridge, J. A., & Fontanella, C. A. (2023). Characteristics and precipitating circumstances of suicide among youth involved with the US child welfare system. *Children and Youth Services Review, 144*(January), Article 106749. https://doi.org/10.1016/j.childyouth.2022.106749

Ruch, D. A., Steelesmith, D. L., Warner, L. A., Bridge, J. A., Campo, J. V., & Fontanella, C. A. (2021). Health services use by children in the welfare system who died by suicide. *Pediatrics, 147*(4). https://doi.org/10.1542/peds.2020-011585

Spanish Government (2015). *Ley Orgánica 26/2015 modificación del sistema de protección a la infancia y a la adolescencia* [Law 26/2015 on modification of the child and adolescent protection system.

Tavares-Rodrígues, A., González-García, C., Bravo, A., & Del Valle, J. F. (2019). Evaluación de necesidades de jóvenes en acogimiento residencial en Portugal [Needs assessment of young people in residential care in Portugal]. *Revista de Psicología Social, 34*, 354–382. https://doi.org/10.1080/02134748.2019.1576325

Vinnerljung, B., Hjern, A., & Lindblad, F. (2006). Suicide attempts and severe psychiatric morbidity among former child welfare clients: a national cohort study. *Journal of Child Psychology and Psychiatry, 47*(7), 723–733. https://doi.org/10.1111/j.1469-7610.2005.01530.x

Walsh, B. W. (2012). *Treating self-injury: A practical guide*. Guilford Press.

Whittaker, J. W., Del Valle, J. F., & Holmes, L. (Eds.). (2015). *Therapeutic residential care with children and youth: developing evidence-based international practice*. Jessica Kingsley Publishers.

World Health Organization. (2021). *Suicide worldwide in 2019*. World Health Organization.

Further reading

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432. https://doi.org/10.1111/j.1467-8624.2010.01564.x.