European Psychiatry 37 (2016) 14–21

Contents lists available at ScienceDirect

European Psychiatry

journal homepage: http://www.europsy-journal.com

Original article

More than words: The association of childhood emotional abuse and suicidal behavior

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ARTICLE INFO

Article history:
Received 7 January 2016
Received in revised form 29 March 2016
Accepted 2 April 2016
Available online

Keywords:
Suicide
Child abuse
Violence
Miscellaneous

ABSTRACT

Background: All types of abuse and neglect have been associated with suicide attempts. However, the association between the level of each type of childhood trauma and suicidal behavior severity (including the progression from ideation to attempts), adjusting for their co-occurrence, is not yet clear.
Methods: We used a cross-sectional web-based survey collected from the Brazilian Internet Study on Temperament and Psychopathology (BRAINSTEP) to investigate the isolated effects of each type of childhood trauma on suicidal behavior severity. The sample consisted of 71,429 self-selected volunteers assessed with the Childhood Trauma Questionnaire (CTQ) and the following key question: "Have you ever thought about or attempted to kill yourself?" (Suicidal Behavior Questionnaire, SBQ-17).
Results: After adjusting for demographic variables, and childhood trauma subtypes, severe emotional abuse (EA) was associated with suicidal ideation and attempts, mainly for serious suicide attempts (OR, 22.71; 95% CI, 2.32–222.05). We found associations of smaller magnitude for severe emotional neglect (EN) with serious suicide attempts, and for severe physical neglect (PN) and sexual abuse (SA) with attempts without really meaning to die. No meaningful trend for physical abuse (PA) was found. Using as reference group ideators, EA was associated with serious suicide attempts, with a peak at the 95th percentile (OR, 4.39; 95% CI, 2.04–9.41). We found associations of smaller magnitude for PN and SA, and no meaningful trend for EN and PA.
Conclusions: Suicidal behavior was strongly associated with emotional abuse in childhood, even when compared with ideators, suggesting that it is a relevant factor for the progression from ideation to attempts.

1. Introduction

Suicide accounted for 1.4% of all deaths worldwide in 2012, making it the second leading cause of death among young adults globally [1]. For each suicide death, there are about 10 to 40 suicide attempts [2,3], which is a strong risk factor for further attempts [4–6]. Suicidal ideation and plans are important precursors of suicide and had a globally lifetime prevalence of 9.2% and 3.1%, respectively [7]. Therefore, others types of suicidal behavior are also a major cause of public health concern [8].

Most people who consider suicide do not go on to make a suicide attempt [9]. Anyway, one of the strongest predictors of incident suicide attempts was previous suicidal ideation. Regarding the course of suicidal ideation, Have et al. found that, among those with baseline suicidal ideation, 31.3% still endorsed these thoughts and 7.4% reported having made a suicide attempt 2 years later [10]. Most often cited risk factors for suicide – including depression, hopelessness, most mental disorders, and impulsivity – predict suicidal ideation but do not distinguish those who have made suicide attempts from those who have experienced ideation without attempts [9]. Three theories of suicide propose that the main factors causing suicide ideation are different from those who cause the progression to attempts [11]. Some factors have been identified as key points: acquired capability for suicide [12]; impulsivity, planning, access to means, imitation, volitional moderators [13]; dispositional (genetic), acquired (habituation), and practical contributors (knowledge of and access to lethal means) for increased capacity for suicide [14].

Research, focused only on suicide deaths, has two serious methodological problems: the need for large longitudinal studies due to low frequency of the outcome and the limited information in psychological autopsy studies [11,15]. Thus, the study of suicidal behavior is important alternative to understand and prevent this severe outcome [12].

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http://dx.doi.org/10.1016/j.eurpsy.2016.04.002
0924-9338/

Childhood maltreatment (CM) is a serious public health problem worldwide [16,17], affecting up to 33% of the population [18]. The main forms of CM (emotional, physical and sexual) are important risk factors for various disorders (e.g., depression, drug abuse, chronic pain), with high impact on the global burden of disease [17,19]. For instance, adverse childhood experiences contribute up to 67% of the risk for lifetime suicide attempts [20].

Two systematic reviews about types of CM and long-term health consequences have shown that all types of abuse and neglect were associated with suicide attempts [17,19]. However, most studies have not comprehensively adjusted for key confounders, including the co-occurrence of more than one type of maltreatment [17,19,21], since physical abuse, emotional abuse and emotional negligence frequently occur together [22]. Also, maltreatment has been typically considered a dichotomous measure, i.e., classifying subjects as maltreated or not [16,17,23]. As a result, it is not yet clear how the different levels and types of childhood trauma are associated to suicidal behavior.

Using a large web-based sample in which many well-known risk factors for suicidal behavior were replicated [5], we evaluated how each type of childhood maltreatment was associated with suicidal behavior severity (ideation, plan, attempt), adjusting for their co-occurrence. Moreover, in line with the ideation-to-action framework [9], we also compared attempters to ideators to analyze the association of each type of CM to the progression from suicide ideation to plans and attempts. We hypothesized that the emotional abuse would be more associated with suicidal behavior severity than the physical forms of maltreatment (abuse and neglect) based on our previous results on the association of child maltreatment with personality traits [24].

2. Methods

2.1. Data collection

The Brazilian Internet Study on Temperament and Psychopathology (BRAINSTEP) is a large web-survey aimed to study the relationship between several psychological, behavioral and psychopathological measures, and described in detail elsewhere [25]. The data for this study were collected from self-selected (a type of convenience sample) volunteers by the research platform on the Internet site www.temperamento.com.br, which was broadcast on national TV news programs and newspapers. This website is non-commercial and advertisement-free. We chose this approach because technology facilitates the reporting of behaviors that are sensitive and stigmatized [26], which is the case for suicidal behavior [8] and childhood trauma.

2.2. Sample

Volunteers answered the instruments anonymously on the Internet from January 15, 2011 to December 31, 2014. Subjects completed standardized questionnaires and scales, which included demographic data, lifetime suicidal behavior (Suicide Behavior Questionnaire-17; SDQ-17) [27,28], and the assessment of childhood abuse and negligence (Childhood Trauma Questionnaire; CTQ) [29].

To ensure and check for validity of the data, we used the following strategies: (1) at the end of the first page on demographics the question "Do you commit to answering the questions honestly?" to increase the validity of answers [30]; questions checking for attention within some of the instruments throughout the system (e.g., "Please mark the option 'sometimes' in this question"); (3) at the end of each phase, there was one direct question on level of sincerity and another on attention. Only those who committed to be honest in their answers stated being sincere and serious throughout the study and had correct answers in the attention validity items were included in the analyses. After validity checks (17.7% of the initial sample were excluded) and the exclusion of those < 18 (for ethical reasons) and > 50 years old (because of the influence of menopausal status on major depression on women [31], and of potential differences between Internet users and non-users), the final sample consisted of 71,429 volunteers.

All participants gave their electronic informed consent before completing the questionnaires. This form was elaborated to fulfil the requirements of the Brazil legislation (Resolution 196/1996) and the Code of Ethics of the World Medical Association (Declaration of Helsinki). Their participation was voluntary and they could cancel their participation at any moment without justification. The Institutional Review Board from PUCRS University approved the study protocol.

2.3. Measures

2.3.1. Suicidal behavior

Lifetime suicidal behavior was assessed by using the first item of the Suicidal Behavior Questionnaire (SBQ-17) [27,28], which evaluated suicidal behavior with the following key question: "Have you ever thought about or attempted to kill yourself?" There were seven possible answers: (1) "No", (2) "It was just a passing thought.", (3) "I briefly considered it, but not seriously.", (4) "I thought about it and was somewhat serious.", (5) "I had a plan for killing myself which I thought would work, and seriously considered it.", (6) "I attempted to kill myself, but I do not think I really meant to die." and (7) "I attempted to kill myself, and I think I really hoped to die". We adapted these answers to five new categories of suicidal behavior severity: (1) "No ideation", (2) and (3) to "Ideation", (4) and (5) to "Serious ideation", (6) to "Attempt" and (7) to "Serious attempt".

2.3.2. Childhood maltreatment

Childhood maltreatment was assessed with the Portuguese version of the Childhood Trauma Questionnaire (CTQ) [29], which is the most widely used instrument to screen for abuse and neglect that occurred during childhood. [22,29,32]. This instrument is composed by a 25-item questionnaire (five questions for each trauma domain) for which participants were required to rate the frequency of traumatic events in a 5-point Likert-type. The CTQ assesses emotional abuse (EA), physical abuse (PA), sexual abuse (SA), emotional neglect (EN), and physical neglect (PN). Emotional abuse refers to verbal assaults on a child's sense of worth or well-being, or any humiliating, demeaning, or threatening behaviour directed toward a child by an older person (e.g., People in my family called me things like "stupid", "lazy", or "ugly"). Physical abuse refers to bodily assaults on a child by an older person that pose a risk of, or result in, injury (e.g., "I got hit so hard by someone in my family that I had to see a doctor or go to the hospital"). Sexual abuse refers to sexual contact or conduct between a child and an older person, including explicit coercion (e.g., "Someone tried to touch me in a sexual way, or tried to make me touch them"). Emotional neglect refers to the failure of caretakers to provide basic psychological and emotional needs, such as love, encouragement, belonging and support (e.g., "There was someone in my family who helped me feel that I was important or special"). Physical neglect refers to failure to provide basic physical needs, including food, shelter, and safety (e.g., "I didn't have enough to eat). Each type of trauma scale is presented in scale ranging from 5 to 25" [33].

The total trauma (TT) score was calculated by adding the scores of specific traumas, scoring from 25 to 125. The categorical severity

of each type of trauma was classified as none, low, moderate and severe [34].

2.4. Statistical analysis

Most trauma subtype scores showed positive skewness (EN = 0.41, EA = 0.90, PN = 1.42, PA = 2.00, SA = 3.24) and kurtosis (EN = –0.59, EA = 0.23, PN = 2.03, PA = 4.64, SA = 11.79). Thus, non-parametric tests were used: the Mann–Whitney *U*-test to compare trauma subtype scores between genders, and the Spearman correlations to access the associations between trauma subscales scores, and with suicidal behavior severity. The variance inflation factor (VIF) and the tolerance statistic (1/VIF) were used for collinearity diagnostics between trauma subscales scores. The VIF indicates whether a predictor has a strong linear relationship with the other predictor(s). A value of 10 is a good value at which to worry [35]. Tolerance values below 0.2 are worthy to concern [36]. The Chi^2 test was used to compare frequencies of suicidal behavior categories between genders.

Adjusted odds ratios (ORs) and 95% confidence intervals (95%CIs) were obtained from multivariate (or multinomial) logistic regression models that estimated the likelihood of suicidal behavior category (no ideation, ideation, serious ideation, attempt, serious attempt) by the intensity of each type of trauma (none, mild, moderate, severe). We also calculated the ORs for the likelihood of "serious attempt" for each score of the specific trauma scales (EA, EN, PA, PN, SA). Scores of each trauma subtype from the 95th percentile were grouped. These analyses were performed using sex, age, education, income, and trauma subscales scores as covariates. Two models were performed using two different groups as the reference: (1) "no ideation" and (2) "ideation". Furthermore, to ensure that each trauma domain was considered in the absence of others types of child maltreatment, participants with moderate and severe exposure for other than the subtype analysed were excluded from the current sample (e.g. to analyse emotional abuse associations, we excluded all participants with moderate and severe emotional neglect, and/or physical abuse, and/or physical neglect, and/or sexual abuse). These analyses were conducted with the IBM SPSS statistical package (version 20; SPSS Inc). *P* values < 05 were considered statistically significant.

3. Results

3.1. Characteristics of the study population

The study population included 51,394 women (72%) and 20,035 men (28%). The mean age was 28.7 ± 8.0 years, 71% of participants were Caucasian and 95.5% had at least high school degree.

3.2. Childhood trauma scores

The most prevalent types of trauma were emotional neglect and abuse, followed by physical abuse and neglect, and sexual abuse was the least common (Fig. 1). The 95th percentile of each subscale trauma score and total trauma score, used as the last score in the analyses, were: 19 (EA), 21 (EN), 14 (PA), 13 (PN), 12 (SA), and 69 (TT).

Women's scores for emotional and sexual abuse were slightly higher for EA ($P < .001$), for SA ($P < .001$) and lower for PA than in males ($P < .001$). Table 1 shows the correlations between childhood trauma subtypes. The most pronounced Spearman correlations between subscales in our dataset were between EA and EN, EN and PN, and EA and PA (r = 0.48 to 0.65). The collinearity diagnostics showed low VIFs for each trauma subscale scores (as dependent variable), allowing for further analysis of covariation: EA ranging from 1.11 (tolerance = 0.90) to 1.54 (tolerance = 0.64); EN ranging from 1.12 (tolerance = 0.89) to 1.67 (tolerance = 0.59); PA ranging from 1.11 (tolerance = 0.90) to 2.02 (0.49); PN ranging from 1.10 (tolerance = 0.90) to 2.17 (tolerance = 0.45); SA ranging from 1.49 (tolerance = 0.66) to 2.17 (tolerance = 0.46).

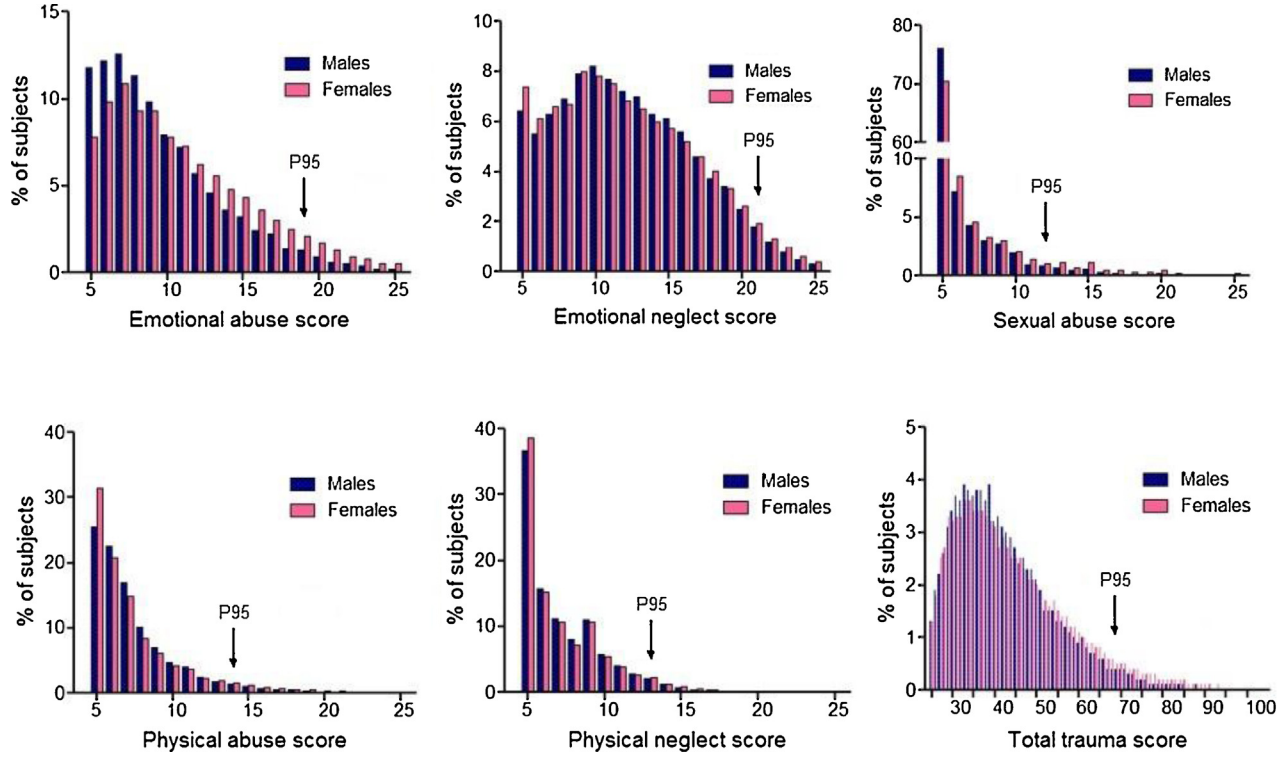

Fig. 1. Frequency distributions of trauma scores in males (n = 20,035) and females (n = 51,394). Fig. 1 shows the P95 for each childhood trauma subtype: 19 (emotional abuse), 21 (emotional neglect), 14 (physical abuse), 13 (physical neglect), 12 (sexual abuse), 69 (total trauma). P95: 95th percentile.

Table 1
Correlations between childhood trauma subtypes[a].

	EA	EN	PA	PN	SA
Emotional abuse (EA)	1.00				
Emotional neglect (EN)	0.65	1.00			
Physical abuse (PA)	0.48	0.37	1.00		
Physical neglect (PN)	0.44	0.54	0.30	1.00	
Sexual abuse (SA)	0.27	0.22	0.22	0.23	1.00

[a] All Spearman correlations are significant at the level 0.01 level (2-tailed).

3.3. Suicidal behavior

The prevalence of each lifetime suicidal behavior category was: "no ideation" (33.4%), "ideation" (43.9%), "serious ideation" (13.7%), "attempt" (6.3%) and "serious attempt" (2.8%). "No ideation" was more frequent among men (35.6% vs. 32.6%, $\chi^2 = 58.65$, df = 1, $P < .001$), while "attempt" and "serious attempt" were more frequent among women (7.3% vs. 3.6%, $\chi^2 = 334.59$, df = 1, and 3.1% vs. 2.1%, $\chi^2 = 48.17$, df = 1, $P < .001$ for both, respectively). The general prevalence for any suicide attempt was 9.1%, and for serious suicide attempt was 2.8%.

3.4. Associations between trauma scores and suicidal behavior

The relationships of each category of suicidal behavior with the scores of trauma subscales and total trauma are shown in Fig. 2. All types of trauma had a positive correlation with the severity of suicidal behavior, in descending order: EA ($R = 0.40$), TT ($R = 0.39$), EN ($R = 0.33$), PA ($R = 0.22$), PN ($R = 0.22$) and SA ($R = 0.18$) (Spearman test, $P < .001$ for all).

The prevalence of "no ideation" decreased as trauma scores increased, particularly with EA: from 59.9% at the minimum score to 4.3% in the 99th percentile score. The prevalence of "serious attempt" was higher as trauma scores increased, particularly regarding EA: from 0.8% at the minimum score to 21.9% in the 99th percentile score. According to the categorical severity of each type of trauma, the subpopulations without (none and low) EA and EN showed the lowest frequencies of "serious attempt" – 1.6%. Next, the subpopulations without PA, PN, and SA showed 2.0%, 2.1%, and 2.3%, respectively. Finally, among participants with a childhood trauma history, those with emotional abuse (moderate and severe) had the highest prevalence of serious suicide attempts (7.9%).

Using the categorized trauma scores, severe EA was strongly associated with suicidal ideation and attempts, reaching an OR, 22.71; 95% CI, 2.32–222.05 for "serious attempt", when the "no ideation" group was used as reference (Fig. 3A). Severe EN was moderately associated with suicidal ideation ("ideation" and "serious ideation") and suicide attempts, reaching an OR, 8.00; 95% CI, 3.55–18.00 for "serious attempt". Severe SA and PN were moderately associated with "attempt" (OR, 5.55; 95% CI, 2.76–11.15, and OR, 3.78; 95% CI, 1.29–11.06), and showed no association with "serious attempt" (OR, 1.65; 95% CI, 0.22–12.14, and OR, 2.79, 95% CI, 0.37–20.94). Severe PA showed no association with any suicidal behavior (e.g., OR, 3.89; 95% CI, 0.51–29.57, for serious attempt).

When the "ideation" group was used as reference in the model, EA severity showed a positive trend of association with "serious ideation" (suicidal plan) and "attempt". Only moderate EA was significantly associated with "serious attempt" (OR, 7.02; 95% CI, 2.88–17.11), although severe EA had a similar OR but larger CI (Fig. 3B). EN had trivial association with "serious ideation" (OR,

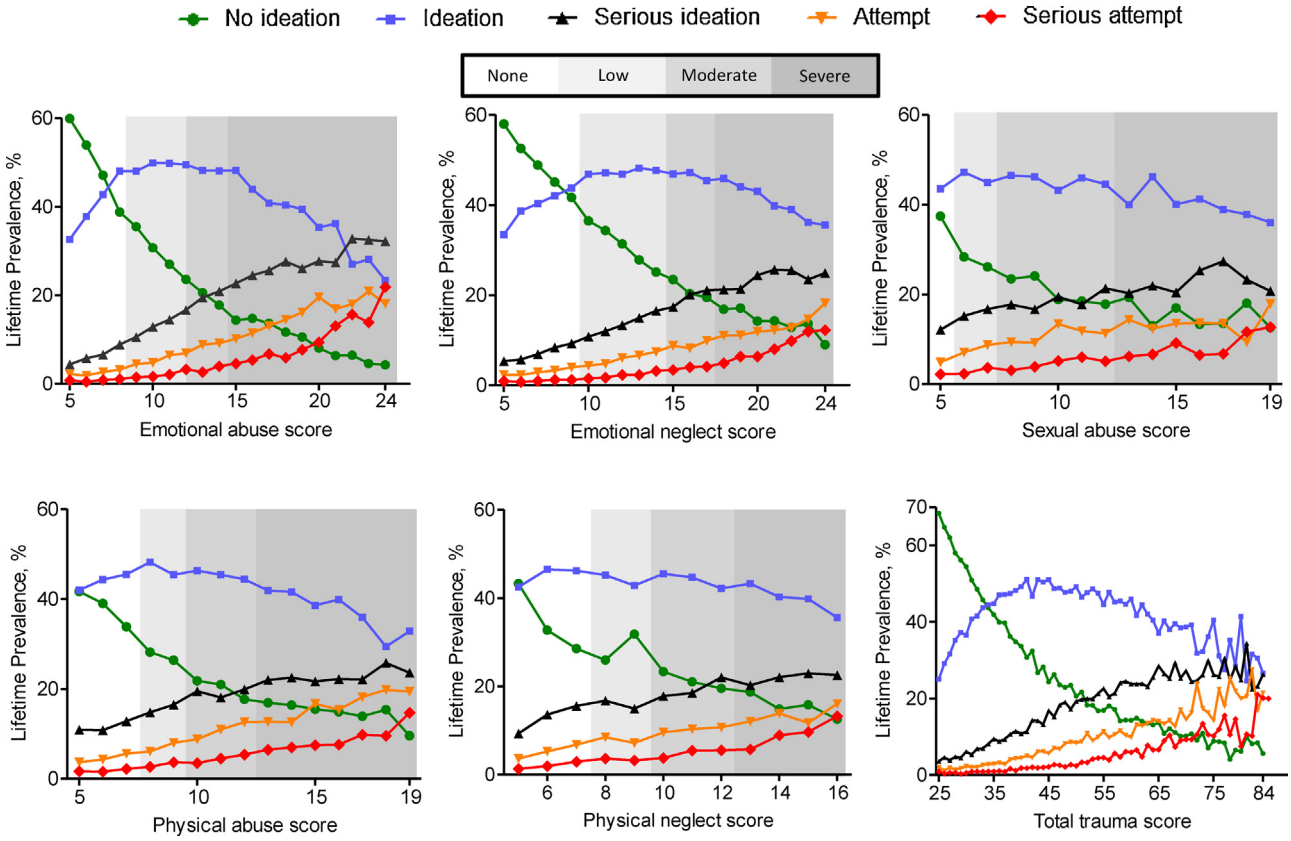

Fig. 2. Prevalence of lifetime suicidal behavior according to the subscales and total trauma scores. Fig. 2 shows the prevalence (no adjusted) of participants with determined intensity (none, low, moderate, and severe) of childhood trauma (subtype or total) with determined lifetime suicidal behavior (no, ideation, serious ideation, attempt, and serious attempt).

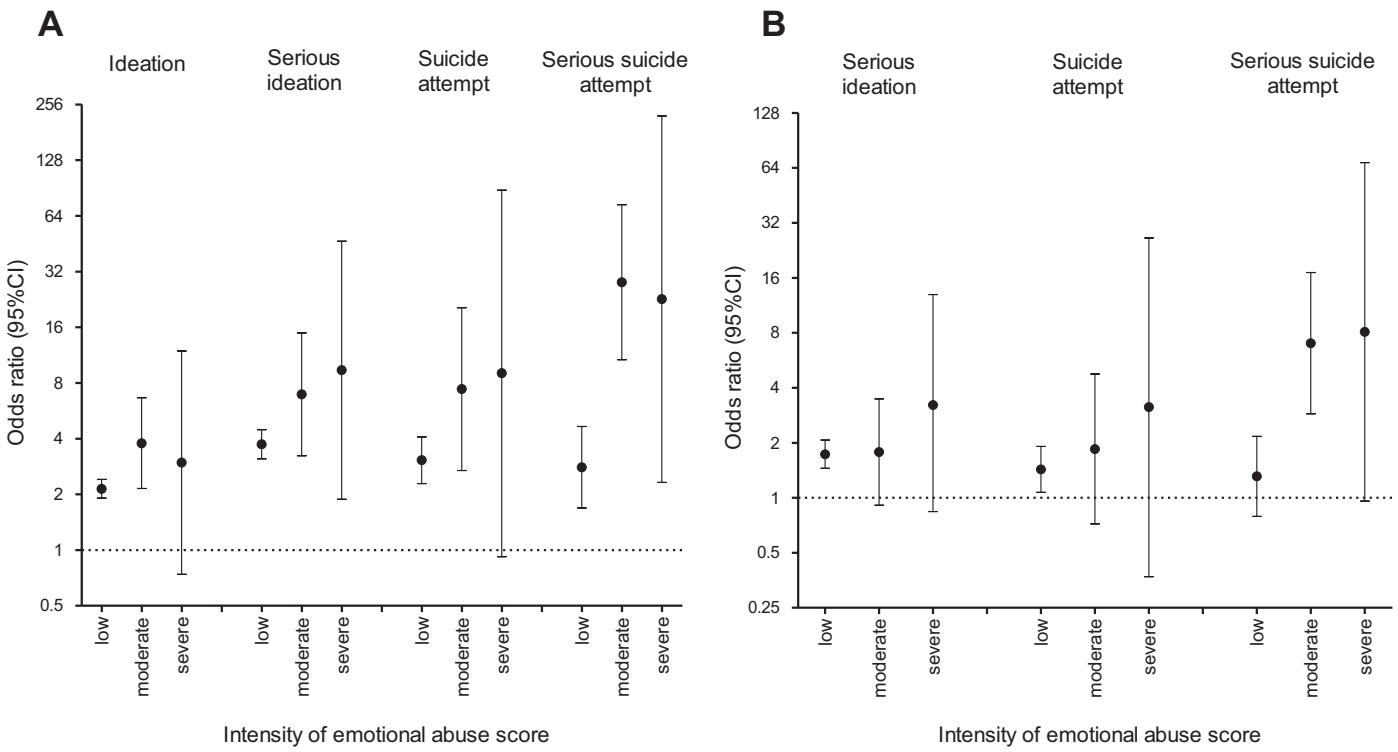

Fig. 3. Association of suicidal behavior severity and intensity of emotional abuse score. Fig. 3A shows the odds ratio for lifetime suicidal behavior (ideation, serious ideation, attempt, and serious attempt) adjusted for trauma subtypes, age, sex, education, and income. Reference is no exposure to childhood emotional abuse (subscale score 5 to 8) and no ideation. Fig. 3B shows the odds ratio for lifetime suicidal behavior (serious ideation, attempt, and serious attempt) adjusted for trauma subtypes, age, sex, education, and income. Reference is no exposure to childhood emotional abuse (subscale score 5 to 8) and ideation.

1.48; 95% CI, 1.01–2.18, for severe EN), and no significant association with "attempt". Severe EN was associated with an increased likelihood of "serious attempt" (OR, 2.59; 95% CI, 1.16–5.74). Severe SA and PN were associated with "attempt" (OR, 3.10; 95% CI, 1.56–6.17, and OR, 3.71, 95% CI, 1.22–11.31, respectively), and there were no significant associations of these types of childhood maltreatment severity with "serious ideation" and "serious attempt". Finally, a history of childhood PA exposure was not associated with suicidal plans and attempts.

We also estimated the multinomial ORs for "serious attempt" according to the CTQ subscale scores (Fig. 4). When the "no ideation" group was used as reference, EA had an exponential association with "serious attempt". Subjects at the 95th percentile score of EA were 20 times more likely to have had a serious suicide attempt (OR, 19.57; 95% CI, 8.42–45.51). For other types of trauma, we found positive associations of much smaller magnitude: at the 95th percentile for EN (OR, 2.81; 95% CI, 1.41–5.59), SA (OR, 2.69; 95% CI, 1.78–4.08), and PN (OR, 2.42; 95% CI, 1.29–4.54) and no meaningful trend for PA.

When we used the "ideation" group as reference in the model, EA had a positive association with "serious attempt". Compared with ideators, subjects at the 95th percentile score of EA were four times more likely to have had a serious suicide attempt (OR, 4.39; 95% CI, 2.04–9.41). For other types of trauma, we found positive associations of smaller magnitude: at 95th percentile for PN (OR, 2.85; 95% CI, 1.53–5.33) and SA (OR, 1.82; 95% CI, 1.22–2.74). No meaningful trend for EN (OR, 1.77, 95% CI, 0.90–3.47; at 95th percentile) and PA (OR, 1.54, 95% CI, 0.76–3.14; at 95th percentile) were found.

4. Discussion

We found a clear and strong association of childhood emotional abuse with suicidal behavior. This association was such that, even at low emotional trauma levels, suicidal ideation was more prevalent than absence of suicidal thoughts, and at severe intensity, suicidal attempts were reported by ~25% of subjects. The associations with physical and sexual trauma were much less pronounced. After adjusting for the other types of trauma, however, only emotional abuse was strongly associated with suicide attempts. These findings suggest that, among different types of maltreatment, the childhood emotional abuse is the most detrimental to the development of a considerable range of suicidal behaviors, including the progression from ideation to attempts.

Most prior studies have not adjusted one type of childhood trauma for the other types of maltreatment [17,19]. This is important as the correlation between them is robust, mainly between physical abuse, emotional abuse and emotional neglect [22]. The minimal association of physical abuse with lifetime suicidal attempt is consistent with the findings by Jeon et al. [37] and McKenna et al. [38]. Moreover, when adjusting for other types of maltreatment, childhood physical abuse is negatively associated with neuroticism [39], fear, sensitivity and anxiety traits, and positively associated with volition and mature coping, especially in men [24]. Accordingly, physical abuse is not related with depressive symptoms when other types of trauma are included in the analytic models [40,41]. These findings are in contrast with previous studies assessing prospectively the effects of physical abuse on mental health, which failed to adjust for emotional abuse and neglect [42].

A meta-analysis on childhood sexual abuse found an increased association with suicide attempts (OR, 2.43 for overall pooled estimate from longitudinal studies), after adjusting for genetic risk factors, early family environment and other risk factors [43]. Our results also showed more frequent suicidal attempts, particularly without really meaning to die, associated with sexual abuse, with a similar OR in the moderate–severe range. This suggests that,

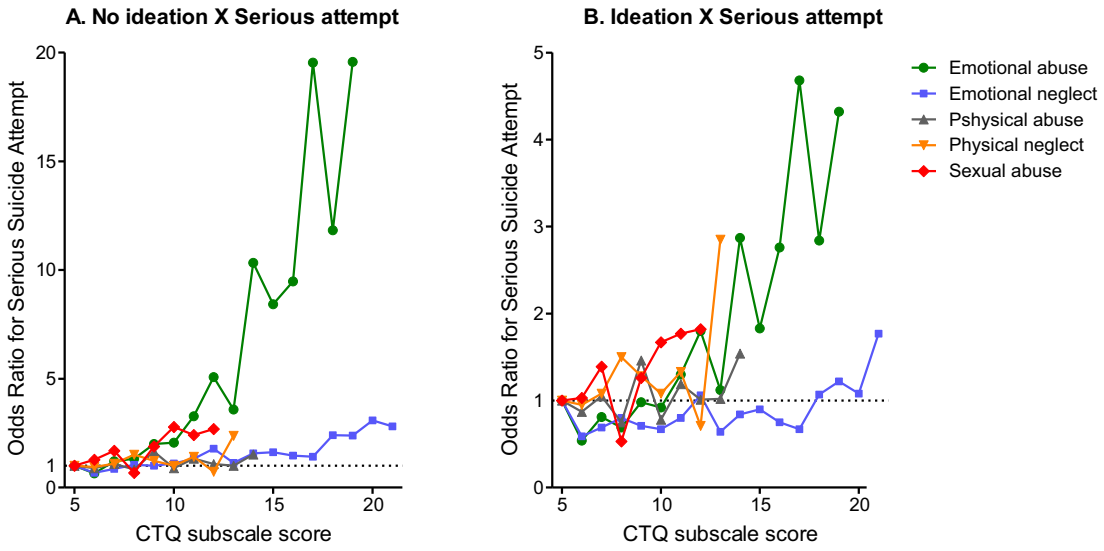

Fig. 4. Association of serious suicide and CTQ subscales score using "no ideation" group as reference in (A), and using "ideation" group as reference in (B). Odds ratio (adjusted for trauma subtypes, age, sex, education, and income) are plotted in Fig. 4 on logarithmic scale (log 2). Reference is the minimal value (score 5) of each CTQ subscale score. Scores of each trauma subtype from the 95th percentile are grouped [P95: 19 (emotional abuse), 21 (emotional neglect), 14 (physical abuse), 13 (physical neglect), 12 (sexual abuse)]. CTQ: childhood trauma questionnaire.

despite the very different methodological approaches, our study was able to replicate this well-established association.

The exponential association of emotional abuse with serious suicide attempt identified in the present study appears to be of major clinical relevance. Our results are consistent with a recent study in which, after adjusting for other types of trauma [44], suicidal behavior was associated particularly with emotional maltreatment (abuse and neglect). A history of emotional or sexual abuse is also associated with an increased risk of suicide ideation, suicide plan and suicide attempt in medical students [37]. Unfortunately, few studies have examined the prevalence [16] and the isolated effects of emotional abuse on suicidality [40,45,46]. Compared with physical and sexual abuse, relatively little is known about the effects of childhood emotional abuse on suicidality and its underlying mechanisms [46]. Van Orden et al. proposed that perceived burdensomeness is a sufficient cause of passive suicidal ideation [12]. Growing up in a hostile environment experiencing frequently verbal attacks (e.g., being called "stupid", "lazy", "ugly", or "you should not have been born") can affect the child's sense of worth or well-being. Therefore, the infant may manifest the following belief: "I am a burden".

The mechanisms by which emotional abuse can cause progression from ideation to suicide attempt are still unclear. Our results showed that the increase in emotional abuse score was associated with this progression, including the conversion to attempt when ideators were included in the reference group. Future research comparing attempters to ideators are necessary in this field [11].

The strengths of the study include the large sample size and the anonymous assessment of suicidal behavior and childhood trauma history. The innovative use of web-based strategies to study very large samples and analytic methods of "Big Data" [47] allows the exploration of specific subpopulations (e.g., individuals with no physical abuse and severe emotional abuse, and vice versa). We also used other types of childhood abuse (as quantitative variables) as covariates in the statistical analyses. To our knowledge, this is the largest study on the association with childhood trauma and suicidal behavior to date, the first to address the level of each type of trauma to predict lifetime suicidal behavior (ideation, plan and suicide attempt), and the first to compare attempters with ideators regarding childhood trauma as risk factor for suicidality.

Despite these strengths, the present study has several limitations. First, the cross-sectional design does not allow to evaluate causality. Although exposure to emotional abuse increases during childhood with a peak in adolescence [48], a memory bias can influence the answers to the self-report scales. Second, the instrument CTQ has some limitations. It overlooks other important forms of maltreatment, such as exposure to peer victimization and witnessing domestic violence, and its lacks data on age, which may have specific effects on brain structures involved in cognition and behaviour [49]. Regarding assessment, this study relied only on self-report scales collected by the Internet using a population sample biased for the female sex and young adults with higher education. Although this project was broadcast to the general population, the prevalence of suicide attempts was somewhat higher than expected for the general population [50,51]. Third, the use of single-item measures of suicidal thoughts and behaviors is associated with a fair degree of misclassification (11% of false positive rate and 10% false negative rate among ideators), and can substantially increase the probability of false conclusions from statistical tests [52]. Instruments that assess a fuller range of suicidal behaviors, such as the Columbia-Suicide Severity Rating Scale (C-SSRS) [53] or the Self-Injurious Thoughts and Behaviors Interview (SITBI) [54], could be useful to improve this accuracy and to strengthen these classification properties. Finally, given the sampling bias and unclear generalizability of the sample in this web-based survey, it would be appropriate to consider this a hypothesis-generating study requiring further, definitive study designs (e.g., longitudinal, but without face-to-face assessment of sensitive issues) to confirm the current preliminary findings. Furthermore, rigorous RCTs using integrated evidence-based therapies for trauma (e.g., EMDR or CBT) are warranted to evaluate the long-term efficacy of treating childhood emotional abuse to prevent consequences (e.g., suicidal behavior) [55], since most published studies have evaluated other forms of trauma, such as sexual abuse, war experiences and disasters.

5. Conclusions

Suicidal behavior was strongly associated with emotional abuse in childhood, with much lower associations for sexual abuse and emotional negligence. Also, even when compared with ideators,

emotional abuse was the trauma subtype more associated with serious suicide attempts, suggesting that it is a relevant factor for the progression from ideation to attempts. Moreover, physical abuse and neglect in childhood were weakly associated with suicidal behavior severity when adjusted for other types of trauma. Meanwhile, given the strength of this association, further studies should focus on interventions to prevent and treat the consequences of emotional abuse.

Funding

Foundation for Research Support of the State of Rio Grande do Sul, Brazilian National Council for Scientific and Technological Development (FAPERGS-CNPq) Proc.10/0055-0 PRONEX (Dr Lara).

Role of funding source

The founding source had no role in the design and conduct of the study; collection, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; or the decision to submit the manuscript for publication.

Disclosure of interest

The authors declare that they have no competing interest.

Acknowledgements

We thank all the volunteers who participated in this study. Mário Wagner, PhD, and Alexandre Coelho, MD, reviewed the statistical analyses.

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