

Suicide risk and childhood trauma in individuals diagnosed with posttraumatic stress disorder

Risco de suicídio e trauma na infância em indivíduos diagnosticados com transtorno de estresse pós-traumático

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Abstract

Introduction: Posttraumatic stress disorder (PTSD) develops after exposure to a potentially traumatic event. Its clinical condition may lead to the development of risk behaviors, and its early detection is a relevant aspect to be considered. The aim of this study was to assess the association between childhood trauma and suicide risk in individuals with PTSD.

Method: This was a cross-sectional study conducted with individuals aged 18 to 60 years who were evaluated at a mental health research outpatient clinic. PTSD diagnosis and suicide risk identification were performed using specific modules of the Mini International Neuropsychiatric Interview (MINI-Plus). The Childhood Trauma Questionnaire (CTQ) was used to evaluate traumatic events in childhood.

Results: Of the 917 individuals evaluated, 55 were diagnosed with PTSD. The suicide risk prevalence in individuals with PTSD was 63.6%. Emotional neglect and emotional abuse scores tended to be higher in the suicide risk group ($p < 0.2$).

Conclusion: Our findings showed a higher prevalence of suicide risk in individuals with PTSD and support the hypothesis that the investigation of childhood traumatic experiences, especially emotional neglect and abuse, may help in the early detection of suicide risk in individuals with PTSD.

Keywords: Childhood trauma, posttraumatic stress disorder, suicide risk.

Resumo

Introdução: O transtorno de estresse pós-traumático (TEPT) desenvolve-se após exposição a evento traumático grave. É uma condição clínica que pode levar ao desenvolvimento de comportamentos de risco, e sua detecção precoce é um aspecto relevante a ser considerado. O objetivo deste estudo foi verificar a associação entre trauma na infância e risco de suicídio em indivíduos com TEPT.

Método: Este foi um estudo transversal conduzido com indivíduos de 18 a 60 anos de idade avaliados em um ambulatório de pesquisa e extensão em saúde mental. O diagnóstico do TEPT e a identificação do risco de suicídio foram realizados através dos módulos específicos da Mini International Neuropsychiatric Interview (MINI-Plus). O Childhood Trauma Questionnaire (CTQ) foi utilizado para avaliar eventos traumáticos na infância.

Resultados: Dos 917 indivíduos avaliados, 55 foram diagnosticados com TEPT. A prevalência de risco de suicídio em indivíduos com TEPT foi de 63,6%. Os escores de negligência emocional e abuso emocional mostraram tendência a estarem mais elevados no grupo com risco de suicídio ($p < 0,2$).

Conclusão: Nossos achados mostram a alta prevalência de risco de suicídio em indivíduos com TEPT e suportam a hipótese de que a investigação de experiências traumáticas na infância, especialmente a negligência e o abuso emocionais, poderá auxiliar na identificação precoce do risco de suicídio em indivíduos com TEPT.

Descritores: Trauma na infância, transtorno de estresse pós-traumático, risco de suicídio.

Introduction

Currently, people are increasingly exposed to potentially traumatic events. It is estimated that the prevalence of exposure to stressors throughout lifetime is between 57.1 and 89.6%.¹ Posttraumatic stress disorder (PTSD) can develop after exposure to a traumatic event and is characterized by a set of symptoms that include high levels of anxiety, avoidance behavior and moments of revival. The disorder affects around 6.8% of the general population throughout lifetime and 7.5% of the clinical population attended in primary care.^{2,3}

According to the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision (DSM-IV-TR),⁴ PTSD is often characterized by a pattern of instability in social and family relationships and jobs. The updated DSM-5 features a new chapter on trauma- and stressor-related disorders, including PTSD.⁵ The clinical features of PTSD can lead to the development of risk behaviors, including suicide attempts.⁶ Data from the National Comorbidity Survey indicate that people with PTSD are six times more likely to attempt suicide when compared to healthy controls, and that PTSD is the anxiety disorder most strongly associated with suicide.⁷

A history of physical and sexual abuse, neglect and rejection is highly associated with suicide,⁸ and this is relevant information of the individual's experience in terms of mental health. In addition, the presence of childhood trauma appears to be a risk factor for the development of PTSD.⁹ Although a history of trauma is common in the general population, PTSD is still underdiagnosed.¹⁰

Obtaining an accurate diagnosis is relevant especially in cases with comorbidity, considering suicide risk and trauma history in clinical populations. Therefore, the aim of the present study was to assess the prevalence of suicide risk in individuals diagnosed with PTSD and the association between childhood trauma and suicide risk in these individuals.

Method

This cross-sectional study was conducted between July 2012 and July 2015 with a convenience sample composed of individuals evaluated at a mental health research outpatient clinic who met criteria for PTSD.¹¹

The research ethics committee of Universidade Católica de Pelotas approved the study (protocol 502.604). Written informed consent was obtained from all participants. Individuals at risk of suicide or with any mental disorder were referred to treatment at mental health care facilities.

All 917 individuals, aged between 18 and 60 years, who were able to understand the instruments applied, were included. Participants were recruited through the advertising of the study in the local media or referred by the mental health services and other surveys that identified mental health demand in their participants. Analyses were conducted with the subsample of patients who fulfilled criteria for PTSD diagnosis.

A questionnaire was used to obtain sociodemographic information and current and past clinical characteristics: gender, age, education, economic class, living with partner, and suicide attempt in family. The Brazilian Economic Classification Criteria proposed by the Brazilian Association of Research Companies (Associação Brasileira de Empresas de Pesquisa – ABEP) were used to evaluate the economic class of the participants.¹² This scale is based on the accumulation of material goods and the education level of the family chief, categorizing people among the socioeconomic classes, from higher to lower, A, B, C, D, and E. However, due to the distribution of this variable in our sample, we opted to dichotomize it into higher (A and B) and lower (C, D, and E) economic status.

Trained and experienced psychologists performed the diagnostic evaluation. PTSD diagnosis and suicide risk identification were performed through the specific modules of the Mini International Neuropsychiatric Interview (MINI-Plus).¹³ The MINI is a brief standardized diagnostic interview structured according to criteria from the DSM-IV and the International Classification of Diseases, 10th revision (ICD-10), designed for use in clinical practice and research in psychiatric and primary care settings. The MINI-Plus, a more detailed version, systematically explores all the inclusion and exclusion criteria and the chronology of 23 diagnostic categories.

The MINI evaluates suicide risk with 6 questions, aimed at assessing intent, planning and previous attempts, each receiving points for the quantification of risk. The range of suicide risk can be low (scores 1-5), moderate (scores 6-9), or high (scores ≥ 10). For analysis purposes, the scores were dichotomized into no (absent) or yes (low, moderate, or high risk). The MINI assesses PTSD through 2 filter questions that assess the key symptoms (traumatic event and revival in the last month), plus at least 3 that assess avoidance symptoms and 2 for symptoms of excitability and the presence of functional impairment.

The Childhood Trauma Questionnaire (CTQ) was used to investigate the presence of childhood trauma, with the adapted and validated version for the Brazilian population.^{14,15} The CTQ is a self-reported inventory composed of 28 items that are used to screen for physical abuse (bodily assaults on a child by an older person that pose a risk of, or result in, injury), emotional abuse

(verbal assaults on a child's sense of worth or well being, or any humiliating, demeaning, or threatening behavior directed toward a child by an older person), sexual abuse (sexual contact or conduct between a child and an older person, including explicit coercion), physical neglect (failure to provide basic physical needs including food, shelter, and safety), and emotional neglect (failure of caretakers to provide basic psychological and emotional needs, such as love, encouragement, belonging and support) that occurred during childhood. This instrument can be applied to adolescents (≥ 12 years) and in adults. Subjects rate statements about childhood experiences while growing using 5-point Likert-type scales (ranging from never true to very often true).

Data were collected on tablets using the Open Data Kit (ODK). The Statistical Package for the Social Sciences (SPSS) version 22.0 was used for the statistical analysis.

The absolute frequencies and proportions of the categories of the variables were described. Because of the small number of subsample participants and the non-normal distribution of CTQ scores, nonparametric tests were used to analyze the data. Fischer's exact test was applied to assess differences in suicide risk ratios, and the Mann-Whitney test was used to rank each score of trauma.

Results

A total of 917 individuals were evaluated. Among these, 55 fulfilled criteria for PTSD diagnosis. Table 1 presents the characteristics of the subsample: most were female; had ≥ 9 years of education; had a lower economic status; and had no history of suicide attempts in the family (Table 1).

Table 1 - Sample characteristics, childhood trauma, and suicide risk in individuals with posttraumatic stress disorder

Variables*	Sample distribution	Suicide risk		p-value
		No	Yes	
Gender				0.502
Male	12 (21.8)	3 (25.0)	9 (75.0)	
Female	43 (78.2)	15 (39.5)	23 (60.5)	
Age				0.781
18-29 years	27 (49.1)	9 (33.3)	18 (66.7)	
30-60 years	28 (50.9)	11 (39.3)	17 (60.7)	
Education				0.399
Up to 8 years	21 (38.2)	6 (28.6)	15 (71.4)	
9 years or more	34 (61.8)	14 (41.2)	20 (58.8)	
Economic status				0.223
Higher	16 (29.1)	8 (50.0)	8 (50.0)	
Lower	39 (70.9)	12 (30.8)	27 (69.2)	
Living with partner				0.162
No	24 (43.6)	6 (25.0)	18 (75.0)	
Yes	31 (56.4)	14 (45.2)	17 (54.8)	
Suicide attempt in family				0.285
No	51 (92.7)	20 (39.2)	31 (60.8)	
Yes	4 (7.3)	-	4 (100.0)	
Childhood trauma[†]	Median (IQR)	Median (IQR)	Median (IQR)	p-value
Emotional abuse	11 (9-15.25)	10.5 (6.5-14)	11.5 (9.25-16)	0.174
Physical abuse	7 (5-10)	6 (5.75-8.25)	8 (5-10.75)	0.278
Sexual abuse	5 (5-9.25)	5 (5-9.5)	5 (5-9.75)	0.451
Emotional neglect	16.5 (11.75-24.25)	14 (11.75-19.25)	19 (11.25-26.75)	0.129
Physical neglect	5 (3-8)	5 (3-6.5)	6 (3-8)	0.378

IQR = interquartile range.

* Data presented as n (%); chi-square test with p-value by Fischer.

[†] Childhood Trauma Questionnaire (n=50); Mann-Whitney test.

The prevalence of suicide risk was 63.6% (n=35). No statistically significant associations were found between suicide risk and gender, age, education, economic status, living with a partner, or history of suicide attempts in the family. However, participants who were not living with a partner showed a tendency towards a higher proportion of suicide risk than those who were living with a partner ($p < 0.2$; Table 1).

Fifty individuals answered the CTQ to detect experiences of childhood trauma. No statistically significant differences were observed in CTQ scores in the groups of individuals with and without suicide risk. However, emotional neglect and emotional abuse scores showed a tendency to be higher in the suicide risk group ($p < 0.2$; Table 1).

Discussion

The current study verified the prevalence of suicide risk in individuals with PTSD and the association between childhood trauma and suicide risk in this subsample. The prevalence of PTSD in the individuals evaluated was small, approximately 6%, even though the proportion of suicide risk among those with PTSD was very high, and emotional neglect and abuse had the tendency to be higher in the suicide risk group.

Comparatively, in a local study with a population sample between the ages of 14 and 35 years, the prevalence of current suicide risk was 11.5%.¹⁶ Another study showed a strong association between PTSD and suicide attempt, in which 21.1% of the individuals with the disorder had already attempted suicide one or more times, compared to 5.4% of the individuals without PTSD.¹⁷

For childhood trauma experiences, our findings suggest that a history of emotional neglect and abuse are risk factors for suicide attempt in individuals with PTSD. In the study with young adults previously mentioned, suicide risk was 3.7 times higher in those with a history of emotional neglect compared to those who did not suffer from this type of trauma. Emotional abuse had a strong effect on current suicide risk. In addition, the risk of suicide was associated with all trauma domains.¹⁶

Emotional neglect is related to impulsivity in specific clinical settings associated with PTSD (e.g., in the presence of borderline personality disorder) and to increased suicide risk.¹⁸ Early traumatic experiences can increase impulsivity, diminishing the capacity of the brain to inhibit negative actions and to control and modulate emotions, leading to the hypothesis that impulsive traits can mediate the effect of trauma on suicidal behavior.¹⁹

In a study with patients undergoing alcohol detoxification, having a history of emotional abuse was a predictive factor for PTSD; in addition, having been exposed to physical abuse in childhood contributed to suicide attempts, and physical neglect increased the risk for mental disorders.²⁰ Lopez-Castroman et al. found an association between childhood abuse experiences and suicide attempts and the ideation degree to commit suicide in PTSD.²¹ This association was not found with neglect, as our findings suggest, and sociocultural factors may explain such differences.¹⁶

This study presents some limitations, such as the small subsample size, which had a low statistical power. However, our preliminary findings support the main hypothesis, which requires a great deal of clinical and research attention. Another limitation refers to the fact that data on childhood trauma were obtained using a self-report instrument, which may be influenced by the memory bias of the participants. Conversely, the CTQ is validated and widely used in different countries and in similar clinical contexts,²¹ and the most appropriate model for Brazilian samples was used to correct our results.¹⁵ The strength of our study is the PTSD diagnosis and suicide risk identification by the MINI, which was applied by professionals trained and experienced in psychological assessment.

Previous studies have shown that childhood trauma is a risk factor for psychopathology, including suicidal behavior.²⁰⁻²² However, consistent sample studies concerning the presence of traumatic experiences in individuals with PTSD have yet to be conducted. Our main finding, namely, the high prevalence of suicide risk in patients with PTSD, reveals that professionals should be more alert to suicide symptoms when evaluating and planning the treatment of these individuals in clinical practice. Therefore, we suggest the implementation of a formal assessment of history of trauma and suicide risk in mental health care services, as well as a formal mental health care program that includes suicide behaviors.

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