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Short communication

Trauma-related disorders in a low- to middle-income country: A four-year follow-up of outpatient trauma in Brazil

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ABSTRACT

Acute stress disorder (ASD) and post-traumatic stress disorder (PTSD) are developed from exposure to traumatic events including war, interpersonal violence and natural disasters. We investigated prevalence and trauma-related information in patients from an outpatient psychiatric unit in Brazil among 2014–2017. A prevalence of ASD/PTSD of 40.8% was found in 179 patients. Female, Caucasian, married, mostly educated during 10–12 years long and employed patients composed a main profile. The presence of any previous trauma in adulthood and childhood were related to ASD/PTSD with longer follow-up time. This study provides evidence of stress-related disorders in a heterogeneous environment.

1. Introduction

The World Health Organisation (WHO) World Mental Health Survey, which included seven low- to middle-income countries (LMICs), found that the prevalence of a traumatic event in a lifetime was 70.4% (Benjet et al., 2016). Social phenomena have highlighted urban violence as an important factor for the genesis of acute stress disorder (ASD) and post-traumatic stress disorder (PTSD). PTSD is considered a debilitating condition that is a result of exposure to traumatic events including war, mass violence and natural disasters.

In the Brazilian context, PTSD has become an important public health problem. A population-based study in two major urban cities in Brazil found that the prevalence of PTSD during a lifetime was 11.4–14.7% in women and 4.7–7.8% in men (Ribeiro et al., 2013). While several studies about PTSD are related to specific types of trauma (Schnyder et al., 2017; Silva et al., 2013; Tay et al., 2016), only a few studies were developed from heterogeneous mental health services.

We remark that more information is needed about PTSD in LMICs. A small number of PTSD studies are performed in LMICs (Schnyder et al., 2017), and a more heterogeneous population may be found in a psychiatric outpatient setting. The present study aims to estimate the prevalence and follow-up of trauma-related disorders in patients who seek assistance from an open access psychiatric ward at a public university hospital in Southern Brazil.

2. Methods

This study is an evaluation of data collected through routine clinical care of patients who attended the Psychological Trauma Research and Treatment Programme (*Núcleo de Estudos e Tratamento do Trauma–NET-Trauma*) from the Clinical Hospital of Porto Alegre (HCPA), during the period of 2014–2017.

The study protocol included sociodemographic data, information about trauma and psychiatric history, and follow-up information. The diagnosis of ASD and PTSD was assessed by the presence of symptoms listed in the DSM-5 according to clinical evaluation at first consultation. The Ethical Committee of HCPA approved all phases of the study.

Remission was attributed according to clinical observation of the symptoms (based on DSM-5) at discharge and considered as a perceived improvement in greater than 50% of the symptoms compared with the initial evaluation. The proposed treatment was based on current guidelines (US Department of Veterans Affairs, 2010; National Institute for Health and Care Excellence, 2013) using pharmacological and/or psychotherapeutic approaches according to clinical evaluation.

3. Results

During the period from 1 January 2014, to December 31, 2017, 251 patients were referred to the outpatient clinic; 179 attended the first

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consultation and agreed to participate in the study. Fifty-six patients (31.3%) were diagnosed with PTSD and 17 (9.5%) with ASD. Female patients had a higher prevalence of ASD/PTSD (61.6% vs 38.4%, $p = 0.048$). The main profile was composed of patients of Caucasian ethnicity, married and who had 10 to 12 years of schooling.

Observed patients experienced the traumatic events firsthand (89.4%) mostly by an unidentified aggressor (72.6% of the sample). The presence of any previous trauma in adult life appears to be related to the development of ASD/PTSD (14.2% non-PTSD vs 35.6% ASD/PTSD, $p = 0.001$). The presence of childhood trauma/stress in individuals who developed ASD/PTSD in adult life compared with those who did not suffer these conditions (11.3% non-PTSD vs 23.3% ASD/PTSD, $p = 0.033$) also presented a statistical difference. The presence of current or previous psychiatric disorders and a family history of a psychiatric disorder did not appear to be statistically related to ASD/PTSD in our observation.

The most prevalent traumatic event in our results was assault (27.4% vs 42.5% ASD/PTSD; $p = 0.035$). In contrast, accidents appeared to be more prevalent in patients who did not develop PTSD (13.2% vs 4.1% ASD/PTSD; $p = 0.045$). A higher prevalence of events related to sexual violence in the group without the development of ASD/PTSD (21.7% vs 15.5% ASD/PTSD; $p = 0.266$) was found; however, this difference was not statistically significant. Other life-threatening events, physical violence and natural disasters did not show significant differences between groups.

Table 1 presents indicators of follow-up from all 179 patients. Patients who were diagnosed with ASD/PTSD had twice the number of consultations (median 9 vs 4.5 visits ASD/PTSD; $p < 0.001$). The mean follow-up time was approximately 68 days for patients without the diagnosis of ASD/PTSD, whereas that of those who fulfilled the criteria was approximately 143 days ($p < 0.001$). Patients in the ASD/PTSD group who completed treatment with remission stayed longer at the outpatient clinic: the mean follow-up time rose to approximately 205 days and 80% were discharged after 3 months of follow-up.

4. Discussion

The present study shows a prevalence of 40.8% of ASD/PTSD. In order to compare a group of individuals who developed more symptoms with those who were exposed to trauma but did not develop these disorders fully, this research considered the occurrence of ASD and PTSD as instances of a trauma-related disorders spectrum. A Brazilian study found a prevalence of PTSD of around 8–10% in a lifetime (Ribeiro et al., 2013); the higher prevalence found in our study may be a result of the fact that it was measured in a specialised psychiatric trauma clinic, which receives patients with more comorbidities and previous vulnerability. Mental disorders have different aetiologies, are more common in women and particularly affect individuals with accumulating social and family disadvantages, such as LMICs population (World Health Organisation, 2014). A greater prevalence of 61.6% of ASD/PTSD was found on observing female patients. We hypothesised that in a country such as Brazil, considered a LMIC, individuals with lower levels of education share some difficulties regarding access to health services. These include indirect costs to household (transport cost), information on health care providers and cultural beliefs (Jacobs et al., 2012).

A greater occurrence of previous trauma in adulthood or childhood was reported in patients who developed ASD/PTSD. Previous findings support the hypothesis that exposure to intense stress during early life may have a negative cumulative effect on mental health (Ribeiro et al., 2013; Kostaras et al., 2017) and may increase the risk of developing a subsequent psychopathology (Pupo et al., 2015; Cordero et al., 2017).

In a specific study for victims of urban violence, assaults were responsible for 25% of the cases of PTSD (Pupo et al., 2015); in our results, assaults accounted for 42.5% of the cases of ASD/PTSD and were related to the diagnosis ($p = 0.035$). Regarding the higher prevalence of events related to sexual violence in the group without the development of ASD/PTSD, we postulate whether the 'natural' course of symptoms is in part responsible for remission by adaptation (Rothbaum et al., 1992) or if the influence of immediate care of these patients prevents ASD progression – more research is necessary to confirm these hypothesis.

The number of consultations and the mean follow-up time of patients who developed ASD/PTSD were double compared with that of patients who did not receive the diagnosis, possibly reflecting the complexity of treatment of these patients. A previous meta-analysis found a mean time of spontaneous remission of approximately 40 months for PTSD patients (Morina et al., 2014); our data indicate a shorter discharge when remission is achieved, in an average of 205.6 days (approximately 7 months) of follow-up. It suggests that the intervention may shorten the disorder and promote faster recovery of these patients.

Providing information from a naturalistic setting was considered a strength of this study. Limitations included that the intensity of the symptoms during follow-up was not evaluated. This study was conducted in a large urban centre of the country in the only outpatient public clinic that specialises in psychiatric trauma; the results may not be applied to other areas where social and cultural conditions differ.

This study addressed an important gap in trauma research in LMIC by examining factors associated with characteristics of trauma. As a recommendation, areas involved in receiving these patients should be familiar with psychological first aid techniques in order to guarantee initial patient care, to ensure safety and comfort, to offer an empathic approach and to help activate social support (Brymer et al., 2006). Additional effort is needed to educate the population on trauma-related disorders, to ensure access to health care and to offer adequate treatment.

Declaration of Competing Interest

The authors declare that they have no conflicts of interest.

Table 1
Indicators of patient follow-up.

Variables	Non-PTSD ($n = 106$)	ASD/PTSD ($n = 73$)	All	*P* value
Number of consultations (median, IQR)	4.5 (9)	9 (11.5)	6 (10)	<0.001[a]
Follow-up time of total sample (mean in days, SD)	68.5 (7.8)	143.5 (16.1)	99.1 (8.5)	<0.001[a]
Follow-up time of discharged patients (mean in days, SD)	107.4 (11.3) (n=56)	205.6 (23.5) (n=35)	145.1 (12.4)	0.004[a]
End of follow-up				
Abandonment	25 (23.6%)	33 (45.2%)	58 (32.4%)	0.003[a]
Discharge with remission	56 (52.9%)	35 (48.0%)	91 (50.8%)	
Referral	25 (23.6%)	5 (6.8%)	30 (16.8%)	

[a] $p < 0.05$; SD: standard deviation; IQR: interquartile range.

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