

# Cumulative trauma exposure comparison between non-refugee immigrants and locals with psychotic disorder

Amira Trabsa Biskri<sup>\*1,2,3</sup>, Anna Mané<sup>3, 4</sup>, Luis González<sup>4</sup>, José María Ginés<sup>4</sup>, Francesc Casanovas<sup>2</sup>, Ana Moreno<sup>3</sup>, Benedikt Amann<sup>3</sup>, Víctor Pérez Sola<sup>2</sup>

<sup>1</sup>Universitat Autònoma de Barcelona, Psychiatry and Legal Medicine Department, <sup>2</sup>Institut de Neuropsiquiatria i Addiccions (INAD), Parc de Salut Mar, <sup>3</sup>Institut Hospital del Mar d'Investigacions Mèdiques (IMIM), Psychiatry, <sup>4</sup>Institut de Neuropsiquiatria i Addiccions (INAD), Parc Salut Mar, Barcelona, Spain

## Introduction

A significant global increase in immigration has been reported due to humanitarian crisis around the world (1). Trauma exposure related to migration process is usually multiple and maintained in long-term which could provoke a cumulative effect (2). It is well established that experiencing multiple traumatic events leads to a worse functioning compared to a single event exposure in the general population (3). Furthermore, it has been postulated in the general population that previous trauma exposure increases reactions to subsequent stressful events (3-4), while later trauma exposure may enhance responses to previous stressful events of less intensity (3-4). Moreover, several meta-analyses describe increased risk for psychosis in immigrant population (5). Despite this increase, there is a lack of research in non-refugee immigrants specially within those with psychotic disorder.

## Objectives

The aim of the study is to describe and compare cumulative lifetime trauma between immigrants and locals with psychotic disorder.

## Methods

Patients who have presented, according to DSM-V criteria, one or more non-affective psychotic episodes, were recruited in Acute and Chronic inpatients units at Hospital del Mar (Barcelona) from November 2019 to June 2021, leading to a total sample of 199 patients. Demographic characteristics of patients, clinical data and main pharmacological treatment were recorded through a questionnaire. Database information was completed with electronic medical records.

Cumulative trauma Scale was used as instrument to assess lifetime trauma exposure frequency and distress. Comparative analysis was performed with IBM SPSS Statistics (Chicago INC) using Chi-Square Test for qualitative variables and t-Student test for continuous variables. Covariate adjustment with demographic and clinical variables was performed by ANOVA test. Study received local ethics committee approval “CEIC” (No. 2019/8398/I).

## Results

From a total of 198 patients, 99 (50%) were immigrants and 99 (50%) locals. Mean of total events exposure was 3 times higher in immigrants (16.12) compared to locals (5.39) ( $F_{177}=12.80$ ,  $p<0.00$ ). These differences were more pronounced when total traumatic distress was compared between groups, with means of 97.13 in immigrants and 27.24 in locals ( $F_{150}=48.99$ ,  $p<0.00$ ). According to CTS results, traumatic lifetime events more present in each group were (table 5): 1. uprooting (82.2%), 2. physical abuse (76.8%) and 3. ethnic/racial discrimination (74.7%) in immigrant group and 1. school failure (42.4%), 2. serious disease (38.4%) and 3. accidents (36.4%) in local group. In addition, for each trauma, table 5 provides comparison of exposure proportion from the opposite group, showing considerable differences. When traumatic events assessed by CTS were grouped by clusters, significant differences between groups were found in (table 6): war and torture, physical violence, discrimination, sexual trauma, negligence, disasters, and loss of loved ones. Immigrant group showed a greater exposure proportion for all mentioned clusters. However, no significant differences were found in social stress cluster.

Figure 1: Comparison on lifetime cumulative trauma exposure between non-refugee immigrants (cases) and locals (controls).

Variable		Group	Obs/ Freq	Mean/ Proportion	Std. Err.	[95% Conf. Interval]	Contrast statistics
CTS	Number of events	Case	99	16.12(5.08)	0.51	-11.96- (-9.49)	$F_{177}=12.80$ $p=0.00$
		Control	99	5.39(3.61)	0.36		
	Total distress	Case	99	97.13(39.85)	4.00	-78.87- (-60.91)	$F_{150}=48.99$ $p=0.00$
		Control	99	27.24(21.37)	2.14		

Obs/Freq: Number of cases observed/Frequency; Std. Error: Standard Error; Conf.: Confidence; CTS: Cumulative trauma scale.

Figure 4: Comparison on traumatic events mean scores grouped by clusters according to CTS, between non-refugee immigrants (cases) and locals group (controls).

Trauma CTS cluster	Group	Mean(SD)	Std. Err.	[95% Conf. Interval]	Contrast statistics
Disasters	Case	0.43(0.49)	0.03	-0.48-(-0.25)	$F_{147}=241.07$ $p=0.00$
	Control	0.07(0.26)	0.05		
Accidents	Case	1.36(0.79)	0.08	-0.82-(-0.40)	$F_{194}=3.11$ $p=0.00$
	Control	0.75(0.72)	0.72		
War and torture	Case	0.84(1.06)	0.11	-0.88-(-0.43)	$F_{127}=106.28$ $p=0.00$
	Control	0.18(0.41)	0.42		
Social stress	Case	3.97(1.31)	0.13	-2.72-(-1.98)	$F_{196}=0.24$ $p=0.62$
	Control	1.61(1.30)	0.13		
Physical violence	Case	4.14(2.10)	0.21	-3.43-(-2.43)	$F_{171}=7.62$ $p=0.00$
	Control	1.21(1.42)	0.14		
Discrimination	Case	2.65(1.54)	0.16	-2.30-(-1.57)	$F_{162}=6.04$ $p=0.00$
	Control	0.71(0.96)	0.96		
Sexual trauma	Case	0.67(0.96)	0.96	-0.54-(-0.49)	$F_{186}=16.31$ $p=0.00$
	Control	0.37(0.76)	0.77		
Negligence	Case	0.47(0.73)	0.74	-0.54-(-0.21)	$F_{143}=85.91$ $p=0.00$
	Control	0.10(0.36)	0.37		
Lost of loved one	Case	1.50(0.80)	0.80	-1.32-(-0.90)	$F_{191}=6.45$ $p=0.00$
	Control	0.38(0.68)	0.68		

SD: Standard Deviation, Std. Error: Standard Error; Conf.: Confidence; CTS: Cumulative Trauma Scale.

Figure 2: Top 5 most prevalent traumatic lifetime events in immigrants group according to CTS and comparison with locals' exposure (%)

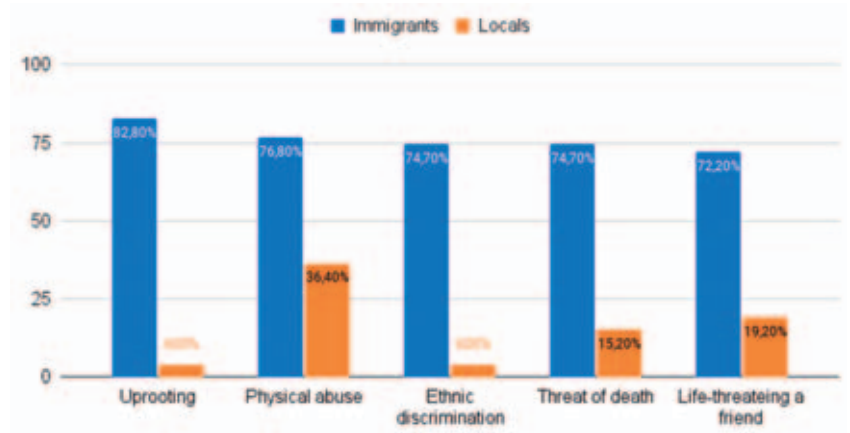
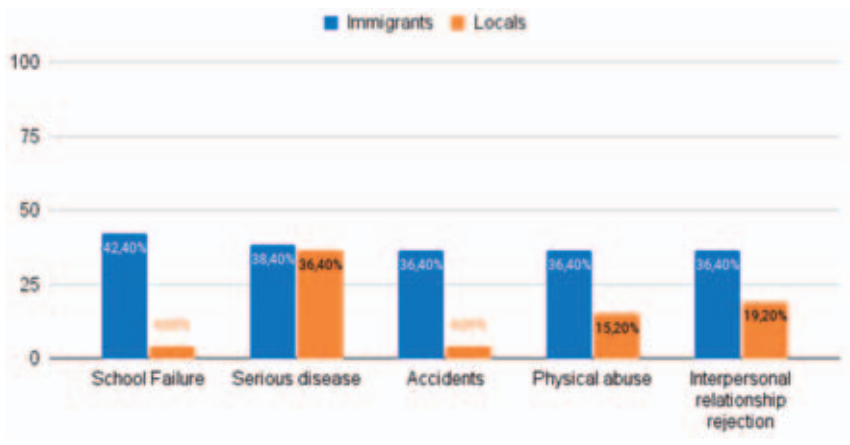


Figure 3: Top 5 most prevalent traumatic lifetime events in locals group according to CTS and comparison with immigrants' exposure (%)



## Conclusions

According to our results there are important differences in cumulative traumatic events between immigrants and locals with psychotic disorder. Immigrants showed three times more lifetime traumatic events than locals. Likewise, immigrants presented significant higher level of distress caused by lifetime trauma and the nature of traumatic events was more severe. These results should be considered in order to offer better assessment and treatment to this population considering this comorbidity.

## Bibliography

1. The International Organization for Migration (IOM)- United Nations. 2020. Data Portal [Internet]. Available from: <https://www.un.org/development/desa/pd/content/international-migrant-stock>
2. Myers HF, Wyatt GE, Ullman JB, Loeb TB, Chin D, Prause N, et al. Cumulative burden of lifetime adversities: Trauma and mental health in low-SES African Americans and Latino/as. Psychol Trauma. 2015 May;7(3):243–51.
3. Trabsa A, Lee N, Lee JH. Posttraumatic Stress Symptoms, Physical Illness, and Social Adjustment Among Disaster Victims. Disaster Med Public Health Prep. 2022 May;1–7.
4. Stuart J, Nowosad J. The Influence of Premigration Trauma Exposure and Early Postmigration Stressors on Changes in Mental Health Over Time Among Refugees in Australia. J Trauma Stress. 2020 Dec;33(6):917–27.
5. Seltén JP, Van Der Ven E, Termorshuizen F. Migration and psychosis: A meta-analysis of incidence studies. Psychol Med. 2019;50(2):303–13.