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Post-traumatic stress disorder in a sample of Syrian refugees in Lebanon ☆

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Abstract

Introduction: Lebanon is the main hosting country for the Syrian crisis, with more than one million Syrian refugees. The objective of this study was to determine the prevalence of post-traumatic stress disorder (PTSD), and identify its possible predictors, in a sample of Syrian refugees living in camps in Lebanon.
Method: We conducted a household survey on Syrian refugees between 18 and 65 years old in 6 camps of the Central Bekaa region, using the Mini International Neuropsychiatric Interview (M.I.N.I.) as a diagnostic tool.
Results: Among the 452 respondents, we found a lifetime prevalence of PTSD of 35.4%, and a point prevalence of 27.2%. The lifetime prevalence of SUD was 1.99% and the point prevalence 0.66%. Multivariate logistic regression could not identify any predictor of current PTSD among a list of demographic variables, but identified the Syrian hometown as a significant predictor of lifetime PTSD (p = .013), with refugees from Aleppo having significantly more PTSD than those coming from Homs (adjusted *OR* 2.14, 95% CI [1.28, 3.56], p = .004).
Discussion: PTSD was a real mental health issue in our sample of adult Syrian refugees in Central Bekaa camps, unlike SUD.

1. Introduction

More than fifty-one million people are being forcibly displaced worldwide, of which 16.7 million are displaced outside their home countries [1]. Syria was the second major source of refugees in 2013, with nearly 2.9 million people displaced since the beginning of the civil war in March 2011 [1].

Lebanon, is a country of 4 million citizens and has already welcomed more than 1 million Syrian refugees, which makes it the main hosting country for the Syrian crisis [1]. These refugees are dispersed over 1700 localities in Lebanon, with the majority in the Bekaa and the North regions, two of the most impoverished regions in Lebanon. Shelter is a serious problem for this population and more refugees are gathering in informal settlements. Currently, more than 1069 such settlements exist in the country [1]. It is estimated that 50% of Syrian refugees live in rented properties, 26% in nomadic camps, and 24% hosted by families or in community shelters [2].

Refugees are at higher risk of psychiatric morbidity, including post-traumatic stress disorder (PTSD) [3]. This is the consequence of compulsory migration, experience of traumatic events, and resettlement in new cultural settings with challenging socio-economic circumstances [4]. However, studies tackling populations of refugees vary and often end up with conflicting results. Studies evaluating psychiatric disorders in war refugees show heterogeneity in prevalence rates of depression (range 2.3%–80%), PTSD (4.4%–86%), and unspecified anxiety disorder (20.3%–88%), mainly due to clinical and methodological factors [4]. This is mainly because of different methodologies implemented as well as a heterogeneity between conflicts. Steel et al. [5] in a meta-analysis on mental health of populations exposed to mass conflict and displacement found that nonrandom sampling, small sample sizes, and self-report questionnaires were associated with higher rates of mental disorder. Reported torture, cumulative exposure to traumatic

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events, time since exposure and level of political terror were among the strongest factors associated with PTSD. This study shows a dose–response relationship between the intensity of stress and the symptoms of PTSD. Other studies have also shown a positive association and correlation between the number of traumatic events and the symptoms of PTSD [6,7]. Moreover, many research, have been conducted so far on refugees resettled in high-income countries, which might not be comparable to studies conducted in the countries of origin [5].

The most commonly reported psychiatric consequence of traumatic events and war conflicts in particular is the post-traumatic stress disorder (PTSD) [8]. On the other hand, studies have raised the issue of substance use disorders (SUD) among refugees and populations exposed to war conflicts [9,10]. However, addiction in displaced populations is still an understudied topic.

PTSD has been repeatedly linked with SUD [11,12] with many theoretical hypotheses explaining the role of substances in alleviating PTSD symptoms, especially for alcohol [12]. SUD in conflict-displaced populations exposed to traumas can be a consequence of pre-displacement patterns of substance use, or an adaptation to the host population [13]. Genetic and biological factors are implicated in the development and maintenance of alcohol and substance use disorders comorbid with PTSD through neurotransmitter and hypothalamic–pituitary-adrenal dysregulation [14]. Studies show that history of trauma and stress sensitizes low alcohol drinkers to consume more alcohol leading to neuroadaptations in amygdala and prefrontal cortical regions [11,15]. However, this sensitization may be delayed due to a temporary suppression of proximal drug-taking in the case of alcohol [12]. Other risk factors of PTSD and SUD comorbidity include dispossession, male gender, pre-displacement SUD and low socio-economic situations [9,10,13].

As a consequence, SUD will have a negative impact on the life of refugees and displaced populations mainly through decreasing health and economic status and increasing risky sexual behaviors, sexually transmitted infections, and interpersonal gender-based violence [9,13]. Furthermore, this comorbidity seems to have implications on severity and treatment outcome compared to each disorder alone [14]. This comorbidity also depends partially on cultural and religious norms of displaced populations. Studies conducted in the Middle East and Pakistan show that displaced populations may present less alcohol use disorders compared to other populations due to the religious proscription of this substance [13]. Despite the importance of the subject, there is a dearth of literature tackling SUD and PTSD in the context of displaced people [16].

Concerning Syrian refugees, some authors have studied the issues of PTSD [17], depression [18], somatic symptoms of anxiety [19] and psychological distress [20] in this population. In Syrian refugees, the prevalence of current depression is 43.9% [18], along with somatic symptoms related to stress [19] and a low quality of life [20]. No studies so far have evaluated the presence of SUD in the Syrian refugee population.

This is one of the few psychiatric studies conducted on Syrian refugees in the Middle East, and the first one to evaluate the presence of SUD in this population. Our objectives were to determine the prevalence of PTSD and identify associated SUD, in a sample of Syrian refugees living in camps of the Central Bekaa region in Lebanon.

2. Method

2.1. Participants and procedures

Our target population consisted of the adult Syrian refugees (18–65 years old) living in camps in Lebanon due to the recent conflicts in Syria. We restricted our study to camps of the Central Bekaa region, since it is one of the main regions in Lebanon in terms of camp housing. The Central Bekaa region is a Lebanese region that constitutes the main border between Lebanon and Syria. Most Syrian refugees come to Lebanon from Homs, Alep, Damascus and other Syrian regions through this border. They settle in different camps in this Lebanese province. Some of them will move and resettle in other Lebanese residential areas after that. Even if refugees' camps in the Central Bekaa do not include all Syrian refugees in Lebanon, we estimate that they constitute a fair representation of this displaced population. Estimation of camp mapping was provided by the International Medical Corps (IMC) non-governmental organization. Due to lack of information available on the location of these camps and the number of refugees in each of them, we could not apply any proper randomization method. Therefore, we chose to screen refugees in the most important settlement of camps of the Central Bekaa region, which is the main entry point to Syrian refugees in Lebanon. This group of camps includes two of the biggest camps of Central Bekaa (Terbol and Kfarzabad), and other surrounding camps (Al-Marj, Dalhamieh, Arab-Mejlli and Majdal-Anjar). The evaluation was done over a period of 1 month.

This study was approved by the ethics committee of Saint Joseph University of Beirut. Permission to enter the camps was obtained from the municipalities of the region and entrance to the camps was facilitated by the IMC. It was a cross-sectional household survey and all adults present in the camp at the time of the survey were approached by one of the interviewers after being presented by an IMC staff. All participants were informed that their answers and the results of this study would not have any impact on the services received by any governmental or non-governmental organization. No compensation was offered to any of the participants to this study. Those who agreed to participate gave written informed consent. The interviewers were the third and the fourth authors of this article, both in the mental health field. They spoke Arabic, the mother tongue and the dialect of the interviewees.