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

Francois Kazoura,b,⁎, Nada R. Zahreddinea, Michel G. Maragela, Mustafa A. Almustafaa, Michel Soufiac, Ramzi Haddada, Sami Richaa

a Department of Psychiatry, Saint-Joseph University, Beirut, Lebanon

b Psychiatric Hospital of the Cross, JalEddib, Lebanon

c Holy Spirit University of Kaslik, Jounieh, Lebanon

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.

© 2016 Elsevier Inc. All rights reserved.

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

---

☆ No conflict of interest. We would like to thank the International Medical Corps for their collaboration.

⁎ Corresponding author at: Psychiatric Hospital of the Cross, 60096, JalEddib, Lebanon.

E-mail address: francoiskazour@hotmail.com (F. Kazour).
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 dispossesssion, 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, Dallamieh, 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.
2.2. Measures

The questionnaire consisted of three parts: (i) screening for current and past PTSD, through the Arabic validated version of the Mini International Neuropsychiatric Interview (M.I.N.I.; translation of the French 5.0.0 version) [21,22] (ii) screening for current and past substance use disorder (SUD), through the same interviewing tool (iii) relevant demographic data and additional variables: time since displacement, time since first traumatic experience focal to PTSD, time of onset of PTSD symptoms, past or current intake of psychotropic medication, past or current psychological support. Information about the occurrence of traumatic events experienced by participants was acquired through the questions of the M.I.N.I. relevant to PTSD. This included events occurring before and during displacement.

The M.I.N.I. [21] is a structured diagnostic interview, exploring in a standardized manner the main DSM-IV and ICD-10 psychiatric diagnoses. It is a valid interviewing tool for epidemiological studies, and has been translated and used in many languages and different cultures [22,23].

2.3. Data analysis

SPSS 20.0 was used to analyze the data. Descriptive statistics for the demographic variables were calculated. Independent sample t-test and \( \chi^2 \) test were performed to examine possible differences between participants with and without current PTSD. A binary logistic regression was ran, with current PTSD as the categorical outcome variable to look for potential predictors among the demographic variables: age, sex, marital status, education level, employment status, Syrian region of origin and duration of displacement. The same regression analysis was repeated for lifetime PTSD. Significant results of Wald statistics were those with a \( p \) value <0.05. Missing data at the item level were minimal, less than 5%; pairwise deletion was used for cases of missing data.

3. Results

We reached a sample size of 452 among the 502 Syrian refugees approached (90% response rate). The camps distribution was as follows: 160 participants from Terbol, 135 from Kfarzabad, 58 from Arab-Majli, 46 from Al-Marj, 28 from Majdal-Anjar and 25 from Dalhamieh.

Demographic variables are listed in Table 1. The mean age was 35.05 years and females constituted 55.8% (\( n = 252 \)) of the sample. The vast majority (81.7%, \( n = 356 \)) were married, the rate of employment was low (24.9%, \( n = 111 \)) as was the education level, with 37.5% (\( n = 167 \)) having no education at all and 49.2% (\( n = 219 \)) having only reached elementary school. 40.9% (\( n = 185 \)) of Syrian refugees came from Homs, 42.7% (\( n = 193 \)) from Aleppo and 16.4% (\( n = 74 \)) from Damascus. The mean time period since displacement to Lebanon was 10.02 months. We found a prevalence of lifetime SUD of 1.99% (95% CI [0.7%, 3.28%]) (\( n = 9 \)) and of current SUD of 0.66% (95% CI [−0.09%, 1.41%]) (\( n = 3 \)). These consisted of 3 cases of past alcohol abuse, 2 cases of present alcohol abuse, 2 cases of past alcohol dependence, 1 case of past Cannabis abuse (the same person had past alcohol dependence), 1 case of past amphetamine abuse and 1 case of present amphetamine dependence.

59.1% (\( n = 267 \)) of participants answered positively on the screening question of the M.I.N.I. related to trauma exposure and the mean time since the first exposure to trauma was of 14 months. Moreover, 10.9% had their traumatic experience after displacement. 35.4% (95% CI [30.99%, 39.81%]) (\( n = 160 \)) fulfilled criteria for lifetime PTSD, while the point prevalence was of 27.2% (95% CI [23.1%, 31.3%]) (\( n = 123 \)). Of note, only 2 cases of lifetime PTSD had their traumatic experience prior to the Syrian conflict. The average time for the development of PTSD after exposure to trauma was of 56.5 days. Only 3 Syrian refugees with PTSD had a psychiatric consultation and were prescribed medication for their symptoms. None had any professional psychological support.

No differences in characteristics were found between participants with and without current PTSD (Table 1). We performed a multivariate binary logistic regression with current PTSD as the outcome variable. None of the included demographic variables was identified as a predictor. A replicated analysis with the lifetime PTSD as the outcome variable, revealed that only the Syrian hometown was a significant predictor of lifetime PTSD (\( p = .013 \)); refugees from Aleppo had significantly more lifetime PTSD, with an adjusted \( OR \) of 2.14 (95% CI [1.28, 3.56]) compared to refugees from Homs (\( p = .004 \)). Also, 65.8% of refugees from Aleppo were exposed to trauma versus 48.6% from Homs.

4. Discussion

The main finding of our study is a PTSD point prevalence of 27.2% (95% CI [23.1%, 31.3%]) and a lifetime prevalence of 35.4% (95% CI [30.99%,39.81%]), in this sample of adult Syrian refugees living in camps in Central Bekaa. These results fall in the range of those found in Middle-Eastern conflicts studies [5] and are close to those reported in a sample of Syrian refugees living in a tent city in Turkey (33.5%) [17]. They are also in the upper range compared to the international literature on PTSD in populations exposed to conflicts and refugees, where the mean prevalence of PTSD is estimated to be 30.6% (95% CI [26.3%, 35.2%]) [5].

The prevalence of PTSD is extremely variable across studies, not only because of methodological factors but also due to the different types of experiences and trauma across different conflicts and the dose–effect relationship in the pathogenesis of PTSD [5]. Therefore, the ongoing nature of the Syrian conflict, its severity and the particularly...
horrifying events happening, may explain our high prevalence of PTSD.

Early prodromes of war in Syria appeared in March 2011 and have been escalating ever since. First clashes took place in the southern area (Deraa and Damascus Countryside) then extended to the central area (Homs) and eventually reached the north (Aleppo) and the east involving most of the country. Refugees fled in waves following major military developments that caused massive and rapid deteriorations in the humanitarian situation. The summer of 2012 witnessed the most significant escalations of the war events when both battles of Damascus and Aleppo were announced [24]. Since 2014, the Syrian conflict has evolved with various battles opposing pro-regime forces, Islamic state fighters and opposition factions, leading to increasing number of refugees. Refugees in neighboring countries (Lebanon, Turkey and Jordan) constitute the majority of Syrian refugees worldwide.

Also, refugees residing in camps in Lebanon suffer from extremely difficult living conditions (poor sanitation facilities, fragile and overcrowded tents, etc.) as well as economic, legal and security problems [1,2]. This represents a prolongation of the traumatic experience till after displacement, which has been recognized as a risk factor for PTSD [25].

In multiple regression analysis, we did not find a significant association between demographic variables and current PTSD, which is consistent with previous literature on the subject [25].

We found a low prevalence of SUD, as reported in some studies of refugees and war affected populations [9]. In our study we had a prevalence of 1.99% of lifetime SUD and 0.66% of current SUD. This consisted of 7 cases of alcohol use disorders (AUD), 2 cases of amphetamines use disorders and 1 case of cannabis abuse comorbid with AUD. Studies of SUD in refugees report a wide range of prevalences [9,10,13,26]. Recent reviews [9,10,13,26] show some evidence of increased substance use in refugees with prevalence rates as high as 30% described in some studies [16]. Moreover, some studies reported aggravation of substance use patterns, as transition to injecting routes of administration after displacement [27]. However, low rates of SUD in refugees and war affected populations have been reported. In a study of prevalence rates of mental disorders among refugees from former Yugoslavia in three different countries, Bogic et al. [28] found very low rates of SUD with

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total (N = 452)</th>
<th>Current PTSD (n = 123)</th>
<th>No Current PTSD (n = 329)</th>
<th>$\chi^2$ or $t$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>35.05</td>
<td>12.35</td>
<td>34.60</td>
<td>12.49</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>252</td>
<td>55.8</td>
<td>68</td>
<td>55.3</td>
</tr>
<tr>
<td>Male</td>
<td>200</td>
<td>44.2</td>
<td>55</td>
<td>44.7</td>
</tr>
<tr>
<td><strong>Marital status</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>356</td>
<td>81.7</td>
<td>94</td>
<td>80.3</td>
</tr>
<tr>
<td>Single</td>
<td>68</td>
<td>15.6</td>
<td>21</td>
<td>17.9</td>
</tr>
<tr>
<td>Divorced</td>
<td>2</td>
<td>0.5</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Widowed</td>
<td>10</td>
<td>2.3</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Education level</strong>&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>167</td>
<td>37.5</td>
<td>38</td>
<td>31.4</td>
</tr>
<tr>
<td>Elementary school</td>
<td>219</td>
<td>49.2</td>
<td>66</td>
<td>54.5</td>
</tr>
<tr>
<td>Secondary school</td>
<td>40</td>
<td>9.0</td>
<td>14</td>
<td>11.6</td>
</tr>
<tr>
<td>University</td>
<td>19</td>
<td>4.3</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Employment status</strong>&lt;sup&gt;d&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>335</td>
<td>75.1</td>
<td>93</td>
<td>75.6</td>
</tr>
<tr>
<td>Employed</td>
<td>111</td>
<td>24.9</td>
<td>30</td>
<td>24.4</td>
</tr>
<tr>
<td><strong>Syrian hometown</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homs</td>
<td>185</td>
<td>40.9</td>
<td>44</td>
<td>35.8</td>
</tr>
<tr>
<td>Aleppo</td>
<td>193</td>
<td>42.7</td>
<td>55</td>
<td>44.7</td>
</tr>
<tr>
<td>Damascus</td>
<td>74</td>
<td>16.4</td>
<td>24</td>
<td>19.5</td>
</tr>
<tr>
<td><strong>Duration of displacement</strong>&lt;sup&gt;e&lt;/sup&gt;</td>
<td>10.02</td>
<td>7.18</td>
<td>9.13</td>
<td>6.41</td>
</tr>
</tbody>
</table>

PTSD = posttraumatic stress disorder; SUD = substance use disorders; SD = standard deviation; M = mean.

*p < .05.

<sup>a</sup> n = 429.
<sup>b</sup> n = 436.
<sup>c</sup> n = 445.
<sup>d</sup> n = 446.
<sup>e</sup> n = 441.
an overall prevalence of only 0.7%, all related to alcohol and no cases of drug abuse or dependence. Additional studies with low rates of SUD in war-affected populations are present in the literature [27,29]. Furthermore, the use of the M.I.N.I. as a restrictive diagnostic tool compared to self-reporting might have lowered our rates compared to other studies [9]. On the other hand, our finding of 1.99% of lifetime prevalence of SUD is very close to that reported in the nationwide Lebanese study by Karam et al. in 2008 [30] (N = 2857), where the prevalence of SUD in the Lebanese population was 2.2%. Our rates are also in concordance with reports on world alcohol trends, showing very low rates in the Middle-East [31]. This shows that Syrian refugees in Lebanon, despite their recent migratory status, may start having substance use patterns similar to the host population [13].

Syrian refugees in Lebanon have significant risk factors of SUD comorbid with PTSD including trauma history, dispossession and low social and economical status [9]. They also have protective factors consisting of conservative cultural and social norms as well as religious proscription of some substances that may lower the risk of SUD. Another explanation is the context of the surveyed camps, where tents were overcrowded and alcohol and substances were explicitly forbidden. In fact, it has been shown that increased bonds and reduced geographic mobility can lower rates of substance use during periods of conflicts [32].

Furthermore, studies have shown that displaced populations may have a delayed drug-taking behavior after the trauma [11,12]. This may be the case of the Syrian population, where SUD prevalence is still relatively low in the context of acute traumatic experiences. A long term evaluation of this population will be needed, in order to have a clear estimation of SUD after the end of the conflict.

Overall, even if SUD in Syrian displaced populations is still a minor issue, vigilance is needed in order to evaluate and treat further SUD after the end of traumatic events. Interventions in these situations should include access to comprehensive treatment services for general and mental health problems to address both the causes and consequences of SUD in the context of trauma and displacement [13,33].

Refugees from Aleppo had significantly more lifetime PTSD than those from Homs, which might be due to more frequent and severe trauma exposure in Aleppo. Indeed, Aleppo and its surroundings witnessed a particularly violent upsurge with heavy weaponry used by all sides, coupled with substantial influence of extremist organizations [24]. According to our study, PTSD in adult Syrian refugees in Central Bekaa camps is an important mental health issue that needs to be addressed. Also, only 3 Syrian refugees with PTSD had a psychiatric consultation and were prescribed medication for their symptoms, and none had any professional psychological support. Similarly, in the study by Scholte et al. [34] it was reported that refugees did not seek medical support. This is not only due to lack of medical care coverage of ever expanding Syrian refugees’ camps especially in the mental health field [1], but also to a lack of psycho-education about these issues and ways to seek support. The lack of mental health screening and support may be also related to other contributing factors. The stigma associated to psychological and psychiatric interventions in this population, and the difficulty of expressing traumatic events such as torture, aggression and rape may limit the access mental health support. Moreover, despite the presence of mental health services for Syrian refugees in Lebanon, those facilities may not be available in all Lebanese regions and for every camp of refugees, which may limit accessibility to such services [1]. However, it is still unclear what interventions should be recommended in such populations. In the extremely deprived context of Syrian refugees’ camps, some service providers may focus their interventions on other priorities (nutritional support, medical and surgical treatment of injuries, vaccination and infection control). In such situations, service providers may not consider PTSD screening and treatment as a priority target despite the importance of mental health interventions for the future well-being, and quality of life of displaced refugee populations [35]. Proposed interventions start with involvement from governments and agencies to improve the post-displacement experience in terms of camps quality, economic opportunities, housing, and so forth [25]. Some have suggested to address the views and needs of refugees based on their priorities [35]. Some authors have studied cognitive processing therapy (CPT) and narrative exposure therapy (NET) to treated PTSD in war and refugees’ settings. Kayes et al. [36] and Köbach et al. [37] showed the efficacy of those 2 techniques respectively in treating war veterans suffering from PTSD with or without alcohol use disorder. Bass et al. [38] has also showed the effectiveness of individual and group CPT in decreasing anxiety, depressive and PTSD symptoms in victims of sexual assaults. Regarding the context of the Syrian war and refugees those therapeutic techniques can be used to treat the victims of PTSD and other trauma related disorders. Furthermore, psychological treatment for PTSD in refugees exposed to traumatic events has many methodological limitations, and faces the challenge of adapting Western techniques to refugee settings with various cultural backgrounds. For example, cultural and religious backgrounds may vary between settings, the nature and the multiplicity of traumas may differ, and evaluation and therapeutic tools may lack reliability and validity for specific refugee populations [35]. However, when an integrative approach is adopted, including social, pharmacological and psychological interventions, results have been reported to be positive [39–41].

5. Limitations

This study has many limitations. It was a non-random sample, and there was no control group of non-refugees’ population. We did not include a questionnaire of the type
and intensity of trauma exposures nor did we screen for other relevant mental health issues found in trauma-exposed patients or refugees populations, particularly depression and anxiety. Anxiety and depressive disorders are common following a disaster or a trauma but are less specific to traumatic events than PTSD. Considering this specificity, the authors decided to screen only for PTSD and SUD. Thus, the lack of screening for other mental health issues constitutes a limitation to this study. Asking patients about past events and symptoms constitutes a recall bias to this study. Another limitation was the use of the Arabic version of the MINI validated by Kadri et al. in Morocco. This version was neither validated for refugees nor for Syrian dialect, but was written in an Arabic language that was completely understood by participants. Moreover, interviewers spoke the Syrian dialect and made sure that all participants understood the questions of the questionnaire. 

This study evaluated Syrian refugees in the Bekaa region and was not able to address refugees in other Lebanese regions. However, we managed to entirely screen 6 camps in the Central Bekaa region through a household survey, using a robust structured interview tool compared to self-report questionnaires. The importance of this study is that it is one of the first to explore psychiatric disorders in Syrian refugees since the recent Syrian conflict and it revealed interesting findings that can guide interventions in this population.

References


