

The number of war-related traumatic events is associated with increased behavioural but not emotional problems among Syrian refugee children years after resettlement

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Abstract

Background: Turkey is the leading refugee-hosting country in the world. However, there are few studies which investigate mental wellbeing of refugee children in Turkey. **Objective:** The paper aims to examine the prevalence of emotional and behavioural problems and associated risk factors among Syrian refugee minors in Turkey. **Methods:** The research involved 85 students from 2nd to 8th grades. We investigated emotional and behavioural problems with parent-reported Arabic form of Strength and Difficulties Questionnaire (SDQ). Socio-demographical findings and children's war-related experiences were also examined. **Results:** The study sample consisted of 49 (63.6%) girls, and 28 (36.4%) boys (total 77) from age 7 to 17. Average time after resettlement was 29.8 ± 11.2 (5 to 50 months) months. 66 (85.7%) children reported to have lost at least one familiar person due to the war. The mean experienced war-related traumatic events were calculated as 2.92 ± 1.86. Total difficulty scores of 30 (39.0%) children were above the cut off values. The rates of children whose SDQ problem scores exceeded the cut-off values were as high as 45.5% (35) for Emotional problems, 64.9% (50) for Peer, 27.3% (21) for conduct and 19.5% (15) for Hyperactivity problems. **Discussion:** Results indicate high prevalence rates of severe traumatic experiences and possible psychiatric disorders among child survivors of Syrian war which in its seventh year now.

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Introduction

The word of 'disaster' derived from its Latin roots 'dis' and 'astrum' which mean 'The stars are against us' to describe the despair of the early humans after the massive destruction of natural disasters¹. Today, child survivors of Syria civil war that have caused deaths of hundreds of thousands of people, also feel similar kind of despair in the face of the civil war which is in its eighth year now. Evidence suggests that war-related traumatic events may have adverse consequences on the mental well-being of children²⁻⁶. However, war-related traumatic events are not the only adversities that threaten psychological well-being of refugee children. There is a growing body of literature that recognises the importance of other adversities on the mental wellbeing of child survivors such as starvation, failure to reach health care, forced migration, lack of shelter, poverty and impaired parenting^{7,8}. Refugee children also commonly face stigmatisation and discrimination by the new culture, are exposed to peer bullying and unable to get proper education and healthcare after resettlement⁹ which might have pervasive adverse effects on their psychological well-being^{10,11}.

Turkey which shelters more than half of the Syrian refugees has been the leading refugee-hosting country in the world since 2014¹². Turkey is hosting more than three and a half million refugees whom children under age 18 consist 46% of them¹³. Although many refugees live in cities which are located along Turkey-Syrian border, the leading refugee hosting city is Istanbul in Turkey^{9,13}. Today, six per cent of refugees are sheltered in refugee camps¹³ while others are housed in informal settlements of various cities that mean they cannot reach enough humanitarian assistance and might face a broad spectrum of daily life stressors⁹.

In addition to its beneficial effects on learning and socialisation, schools also provide safety and stability that help children to cope with negative feelings following traumatic experiences. For instance, social activities which are a core part of school training (e.g. playing, art, dance lessons, singing and others) might support the psychosocial development of children which may have benefits

on mental well-being and, could also contribute to the psychosocial development^{7,14}. However only one out of three school-age refugee children could attend school in Turkey⁹. Furthermore, we want to acknowledge that there are two distinct sorts of schools which Syrian refugee children could register in Turkey. 'Transient Education Centers' which are established to give education for refugee children in Arabic language and, national public schools where provides training to both Turkish and refugee children in Turkish language systematic education⁹. Due to the lack of integration policies that expected to support refugee children attending public schools and the situation of the public schools which are already overcrowded, only 19% of refugee children are attending to public schools. What means, most of the refugee children who have enrolled in school are going to Transient Education Centers which are not providing systematic education⁹.

Prior to the work of Kinzie *et al.*, which showed high rates of PTSD and depression among child survivors of concentration camps, the role of traumatic experiences on the mental well-being of children was largely unknown⁶. The research to date has been designed to determine whether refugee minors are at higher risk for development of psychiatric disorders in Iraq^{4,15-17}, Bosnia¹⁸, Syria¹⁹, Palestine²⁰, and Lebanon²¹ have shown increased rates of post-traumatic stress disorder (PTSD), depression, anxiety disorders and enuresis among refugee children. It is now well established from a variety of studies that children's psychosocial well-being is adversely affected by the war and related adverse events²². However, the most of the studies that aimed to assess the mental wellbeing of refugee children have been conducted in high-income countries while most of the refugees shelter in low-income countries⁵. And even though, Syria civil war has uprooted more than ten million people from their home and was recognised as one of the biggest humanitarian crisis that humankind has faced in the 21st century¹². Up to now, very few studies have been carried out on the mental well-being of child survivors^{19,23-25}.

This paper aims to contribute to the understanding of the effect of war and related traumatic events on the psychological well-being of child survivors. The research seeks to address the prevalence of



emotional and behavioural problems and explore differences in the prevalence rates of psychological problems and exposure to war-related traumatic events between genders and age groups in a school sample of Syrian refugee children in Turkey. We also aimed to investigate risk and protective factors which are associated with higher or lower rates of psychiatric symptoms among Syrian refugee kids in Turkey.

Methods

Participants and procedure

The study was conducted in autumn of 2015, in Hatay, a southern city of Turkey which borders with Syria at the east and south side. The municipality sheltered 377.198 refugees from Syria in September 2015 what means that almost one-quarter of Hatay's inhabitants were refugees at the time. The participants in this study were recruited from a 'Transient Education Center' in Türkmendağı province. At the time of the contact 147 children and adolescent were attending school. It was planned to reach all of the children between ages 7 to 17. Teachers informed children and their parents and invited them to participate. Both children and their parents/guardians gave informed consent for the participation in the study. Children and their parent's anonymity preserved. Research documents were sent to parents by teachers. From 104 students who were studying from 2th to 8th grades only 85 brought reports back. We excluded eight forms because of missing data. The research was approved by the Ethics Council of the medical faculty of Sakarya University.

Measures

The participants were asked to fill strengths and difficulties questionnaire (SDQ) which is a widely used scale to screen for psychosocial problem among children²⁶⁻²⁸. SDQ has 25 items and five distinct subscales that aim to evaluate hyperactivity, peer problems, emotional symptoms, conduct problems and prosocial behaviours²⁹. The total difficulties score (TDS) reveals sum of subscales except for prosocial subscale²⁹. The scale has been translated, and validated in the Arabic language³⁰ and has been used in various Arabic spoken countries³¹. Although it is planned to gather information both from children and their parents using children and parent-reported SDQ, we could not do that because of the differences in age requirements between the questionnaires (Self-reported SDQ if for kids 11 to 18 years old and Parent-reported SDQ is for kids 4 to 18). Thus, we used parent-reported SDQ which could be applied to all of the pupils in the school. The single-sided version of the SDQ which is easier to administer and the score was used for the evaluation²⁸. The impact supplement that assesses the burden and duration of symptoms were not used. Children and parents were also kindly invited to fill the socio-demographical form which was developed by the researchers to obtain data about children and parents' age, education and economic situation, children's war-related traumatic experiences and Turkish language skills.

Data analysis

We analysed the emotional and behavioural data which was gathered by SDQ using two different methods. The first method was used to assess mean scores for each subscale of SDQ. The analysis focused on children whose scores were above the cut-off values according to the UK SDQ site in the second method of evaluation. We used Statistical Package for the Social Sciences (SPSS 20) for data analysis. We analysed the frequency of demographic variables and war-related traumatic events by descriptive statistics. The χ^2 test was used to compare groups for categorical variables. We used Students' *t*-test to analyse ordinarily distributed questionnaire scores and, Mann-Whitney *U*-test for non-ordinarily distributed scores. Multiple logistic and linear regression analyses were performed to explore the predictive values of independent variables on the having higher SDQ

subscale scores than the cut off values. We used logistic regression analysis to examine significant differences between psychiatric cases and non-cases according to the cut-off values according to the SDQ UK site.

Results

Socio-demographical characteristics

The study sample consisted of 77 children and adolescents from age 7 to 17. Of the 77 participants, 49 (63.6%) were girls, and 28 (36.4%) were boys. There were 30 (39%) adolescents (ages 13 to 17) and 47 (61%) children (age 7 to 12). Almost all attendants were living with their parents, while one child was separated from his parents and was living with his relatives. The satisfaction of life was evaluated using multiple choice questions (Yes, No and Do not know) such as: are you satisfied with your life in Turkey. There was no statistically significant difference in socio-demographical features and war-related or daily life stressors between girls and boys as shown in Table 1. Similarly, no difference was observed in socio-demographical features, war-related or daily life stressors between child and adolescent age groups except that younger children were more pessimistic about the fate of the war ($\chi^2 = 4.053, p = 0.044$).

War related traumatic events

Children assessed for the history of exposure to common war-related events that were shown in Figure 1. Although, mean experienced traumatic events were higher among boys ($m = 3.28$) than girls ($m = 2.71$) the difference was not statistically significant.

Table 1. Socio-demographical variability and gender differences

	Girls <i>n</i> = 49	Boys <i>n</i> = 28	Total <i>n</i> = 77
Age	12.2 ± 2.33	11.8 ± 2.17	12.07 ± 2.27
Children (7-12)	29 (59.2%)	18 (64.3%)	47 (61.0%)
Adolescent (13-17)	20 (40.8%)	10 (35.7%)	30 (39.0%)
Fathers Age	44.5 ± 6.98	41.9 ± 6.99	43.5 ± 7.05
Mothers Age	37.1 ± 7.3	35.5 ± 6.87	37.1 ± 7.30
Sibling	4.3 ± 1.73	3.5 ± 1.85	4.0 ± 1.81
Time after resettlement (Month)	28.9 ± 10.9	31.6 ± 12.1	29.8 ± 11.2
Traumatic Events	2.71 ± 1.89	3.28 ± 1.80	2.92 ± 1.86
Having relatives in Turkey	44 (89.8%)	24 (85.7%)	68 (88.3%)
Having Friends in Turkey	46 (93.9%)	26 (96.3%)	72 (94.7%)
Fathers Education			
Primary School	32 (65.3%)	18 (64.3%)	50 (64.9%)
High School	12 (24.5%)	6 (21.4%)	18 (23.4%)
University	5 (10.2%)	4 (14.3%)	9 (11.7%)
Mothers Education			
Primary School	28 (57.1%)	20 (71.4%)	48 (62.3%)
High School	14 (28.6%)	6 (21.4%)	20 (26.0%)
University	7 (14.3%)	2 (7.1%)	9 (11.7%)
Speaking Turkish			
Can't Speak	11 (22.4%)	2 (7.1%)	13 (16.9%)
A bit	17 (34.7%)	14 (50.0%)	31 (40.3%)
Well	21 (42.9%)	12 (42.9%)	33 (42.9%)
Dissatisfaction with life in Turkey	17 (34.7%)	13 (46.4%)	30 (39.0%)
Lack of food or shelter	8 (17.0%)	9 (33.3%)	17 (23.0%)
Not Believing that The War will End	6 (12.2%)	4 (14.3%)	10 (13.0%)
Wish to Turn Back to Hometown	45 (91.8%)	24 (85.7%)	69 (89.6%)

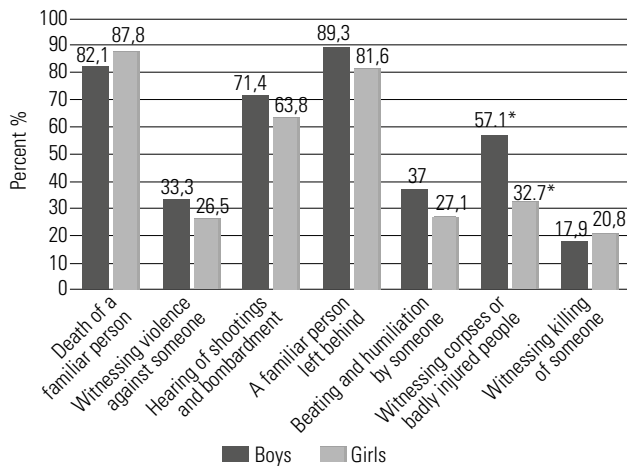


Figure 1. Prevalence of war-related traumatic events.

* = χ^2 test, $p < 0.05$.

Emotional and behavioural problems

To assess the emotional and behavioural problems SDQ questionnaire was used. We analysed SDQ data with two sets of analysis. The first set of analyses examined the mean SDQ subscale scores as shown in Table 2. The second set of analysis was made according to the cut-off values that were proposed by the SDQ UK site to predict possible psychopathology as illustrated in Table 3.

As can be seen from the Table 2, the mean score for emotional problems was significantly higher among girls ($t = -2.065$, $p = 0.043$) and conduct problem score was significantly higher among boys ($t = 2.980$, $p = 0.004$). Children's (7-12 years old) mean prosocial behaviour score was considerably higher than adolescents' (13-17 years old) mean prosocial behaviour score ($t = 2.054$, $p = 0.043$). No more significant difference was observed between genders and child and adolescent age groups.

Prevalence of children and adolescents whom their SDQ subscale scores were above the cut-off values that have been proposed by SDQ UK site are shown in Table 3. From the data in Table 3, it is apparent that almost two-thirds of the participants (64.9%) reported having

possible peer problems and around half of the participants (45.5%) have possible emotional problems.

Traumatic events and emotional or behavioral problems

Number of traumatic events were significantly correlated to TDS ($r = 0.318$, $p = 0.005$), conduct problems ($r = 0.305$, $p = 0.07$) and hyperactivity scores ($r = 0.274$, $p = 0.016$). No statistically significant correlation was found between the number of experienced traumatic events and other SDQ subscales.

SDQ subscale correlations

Analysis of correlations between SDQ subscores showed negative correlation of prosocial behaviour with emotional ($r = -0.232$, $p = 0.04$), conduct ($r = -0.281$, $p = 0.01$) and peer ($r = -0.338$, $p = 0.00$) problems. Hyperactivity was positively correlated to conduct ($r = 0.450$, $p = 0.00$) and peer ($r = 0.263$, $p = 0.02$) problems. Peer problems were also positively correlated to conduct problems ($r = 0.335$, $p = 0.00$).

Comparison of children above and below the cut-off values for SDQ problem scores

Children with higher TDS scores more commonly reported to have a parent with maltreatment or torture history during the war than children with lower TDS score ($\chi^2 = 4.014$, $p = 0.045$).

Children with higher conduct problem scores more commonly reported to not feel satisfied in Turkey ($\chi^2 = 9.637$, $p = 0.008$), and having a familiar person left behind ($\chi^2 = 5.331$, $p = 0.021$). They also more commonly reported witnessing to insult of someone ($\chi^2 = 6.174$, $p = 0.013$) and having a parent with maltreatment or torture history during the war ($\chi^2 = 6.027$, $p = 0.014$).

Fathers of children with higher emotional problem scores were significantly less educated when compared to children with lower emotional problem scores ($\chi^2 = 9.052$, $p = 0.011$).

Children with hyperactivity more commonly reported to be dissatisfied in Turkey ($\chi^2 = 6.132$, $p = 0.047$) and, had lost a familiar person due to the war ($\chi^2 = 5.193$, $p = 0.023$). They also more commonly reported to have a close person left behind ($\chi^2 = 5.713$, $p = 0.017$), had seen corpses or body parts ($\chi^2 = 4.785$, $p = 0.029$)

Table 2. SDQ subscale scores according to gender and age groups

N: 77	Gender		Age Groups		Total Scores
	Girls	Boys	7-12	13-17	
Emotional problems	3.65 ± 2.3	2.64 ± 1.8	2.89 ± 2.0	3.90 ± 2.4	3.28 ± 2.2
Hyperactivity	3.75 ± 1.9	4.35 ± 2.3	4.23 ± 2.0	3.56 ± 2.2	3.97 ± 2.1
Peer problems	2.95 ± 1.4	3.14 ± 1.4	3.00 ± 1.5	3.06 ± 1.3	3.02 ± 1.4
Conduct problems	1.61 ± 1.3**	2.57 ± 1.4**	2.04 ± 1.4	1.83 ± 1.4	1.96 ± 1.4
Prosocial behaviour	7.73 ± 1.8	8.32 ± 1.3	8.25 ± 1.6*	7.46 ± 1.5*	7.94 ± 1.6
Total difficulties	11.97 ± 4.6	12.71 ± 5.1	12.17 ± 4.5	12.36 ± 5.3	12.24 ± 4.8

Man-Whitney U test; * = $p < 0.05$, ** = $p < 0.01$.

Table 3. Rates of children above the cut-off values

SDQ Subscales N (%)	Age groups		Genders		TotalN:77
	7-12 n: 47	13-17 n: 30	Boys n: 28	Girls n: 49	
Emotional problems	20 (42.6)	15 (50.0)	7 (25.0)*	28 (57.1)*	35 (45.5)
Hyperactivity	9 (19.1)	6 (20.0)	6 (21.4)	9 (18.4)	15 (19.5)
Peer problems	29 (61.7)	21 (70.0)	20 (71.4)	30 (61.2)	50 (64.9)
Conduct problems	14 (29.8)	7 (23.3)	15 (53.6)**	6 (12.2)**	21 (27.3)
Prosocial	1 (2.1)	1 (3.3)	0 (0.0)	2 (4.1)	2 (2.6)
Total difficulties	18 (38.3)	12 (40.0)	12 (42.9)	18 (36.7)	30 (39.0)

Chi square, * = $p < 0.05$; ** = $p < 0.01$.

and have a parent with maltreatment or torture history during the war ($\chi^2 = 5.831$, $p = 0.016$).

Children whose prosocial scores were below the cut-off values more prevalently reported maltreatment in Syria ($\chi^2 = 4.853$, $p = 0.028$), have witnessed other people getting killed or injured around them ($\chi^2 = 6.717$, $p = 0.010$) and, have a parent with maltreatment or torture history during the war ($\chi^2 = 5.476$, $p = 0.019$).

Risk factors

Regression analysis was used to predict the possible risk factors. According to the analysis, history of parent's maltreatment was the only predictor of higher TDS ($B = -1.035$, $\text{Sig} = 0.045$). Being girl ($B = 1500$, $\text{Sig} = 0.07$) and having less educated father ($B = 1.151$, $\text{sig} = 0.08$) were predicting the development of emotional problems while not being satisfied in resettlement was predicting conduct problems ($B = -0.981$, $\text{Sig} = 0.025$).

Discussion

Our findings indicate very high rates of emotional and behavioural problems among refugee children and adolescents when compared to previous study findings that were carried out with refugee children^{28,32}, UK mean scores³³ and weighted means of 12 studies that were analyzed in a review²⁷. Results also indicated high rates of traumatic exposure which may have an everlasting effect on mental health of children.

Exposure to traumatic events and inability to reach essential life requirements are prevalent among refugee children^{5,34}. Although first studies that investigated if mental wellbeing of children is adversely affected by violence and related experiences were carried out only 30 years ago⁶ today it is a well-known fact that war-related adversities have pervasive adverse effects on mental health of child survivors²². Our findings also pointed out increased emotional and behavioural problems among child survivors of the Syrian war by showing very high rates of possible peer, emotional and conduct problems.

Previous studies which were carried out with Syrian refugee children reported high rates of severe traumatic experiences such as loss of a familiar person, being confronted with body parts and witnessing blasts and clashes^{24,32,35,36}. Similarly, our findings showed high prevalent rates for exposing to severe traumatic events such as loss of a familiar person due to the war, witnessing of clashes or blasts and exposed to corpses or body parts. Despite United Nations (UN) agreement to protect children during wars, our findings, like previous study results^{7,20,34,37}, indicate very high rates of traumatic events among child survivors of wars.

Lenore Terr, who showed that traumatic events adversely affect the mental well-being of children for the first time³⁸, pointed out everlasting effects of childhood traumatic events on mental health³⁹. Other studies which investigated effects of traumatic events on psychosocial wellbeing of children also have shown the adverse results of such experiences on mental health^{1,2,40,41}. Beyond the traumatic events to which refugee children had been exposed before the flight, they commonly face various stressors in the resettlement^{5,42}. Accordingly, the most of the refugees who live in Turkey do not live in official refugee camps¹³ what means compromised conditions, inability to access medical and education services, lack of sheltering and food^{9,43} that may lead to worst mental consequences among refugees in Turkey. Although we observed very high rates of emotional and behavioural problems, we can not generalise our findings to all refugee children because of the sample selection. Indeed, our study sample consisted of school children while only one out of three school-age children could attend school in Turkey⁹.

Both pre and post flight traumatic events and stressors may lead mental disorders in refugee children^{11,44}. In a comparative study which was carried out with refugee, ethnic minority and indigenous children in the UK, results pointed out higher SDQ scores for refugee children than both ethnic minority and native children²⁸. Various recent studies have been carried out using questionnaires also indicated increased emotional and behavioural problems among

refugee children^{32,45,46}. Results of a recent study which was carried out with Syrian refugee children who were accepted to Germany showed that one out of three children has PTSD²³. Several other studies also reported high rates of PTSD and depression among Syrian refugee children^{35,46,47}. Accordingly, our findings which gathered by a well known and widely used screening instrument^{29,30} revealed very high rates of peer (64.9%), emotional (45.5%), conduct (27.3%) and, hyperactivity (19.5%) problems among refugee kids which point out likelihood of having psychopathology.

Very high rates of peer problems which are not commonly studied among child survivors of war is a prominent finding which point out that adverse psychological consequences of war-related experiences might not be limited to emotional problems. Similarly, we have found high rates of conduct problems which is not often studied among child survivors of war and violence. We also found out that hyperactivity scores which may be related to hyperarousal symptoms of PTSD may worsen social functionality by causing peer problems. We think that later studies which will be carried out with refugee children should also focus on behavioural as much as emotional problems.

Although several studies have reported that girls may be more adversely affected by displacement⁴⁸, it has not been shown in all studies⁴⁹. However, traumatic events may influence girls and boys in different ways such as boys are prone to emerge externalisation problems and girls are prone to develop internalisation problems after traumatic events⁵⁰. Accordingly, emotional problems were higher among girls than boys and conduct problems were more prevalent among boys than girls in our study. Previous findings that indicate girls may be affected more adversely by war might be related to the methodology of these studies which investigate internalising problems (depression and anxiety disorders) while only a few studies examine externalising or behavioural problems which are more prevalent among boys⁵⁰. We think all of the psychiatric disorders must be evaluated precisely to explore effects of war and displacement on the mental health of both, girls and boys.

Children's reaction to stressful events may vary by age⁴⁸. It has been reported that depression might be more common after traumatic exposure among older children¹⁸. A new study which was carried out with refugee children in Turkey also had reported higher psychiatric disorder rates among older children⁵¹. However several study findings have reported war-related adversities might have more adverse effects on younger children's mental health². It has been proposed that younger children are more commonly tend to externalise the causes and consequences of events compared to older children⁵². However, no difference was observed between child and adolescent age groups in any SDQ problem sub-scores in our study sample. We think that when the community is exposed to a single traumatic event children's different resilience capacities may cause different reactions. But by the accumulation of long-lasting traumatic events such as living in a war-torn area, resilience capacities of every person may break down that make it hard to observe unique reactions and resilience capacities of different individuals.

Our findings which revealed higher prosocial scores among younger children deserves attention. Traumatic events may trigger fight or flight response that may undermine children's basic trust to others and decrease their social attendance. The results might be interpreted that older children might be more vulnerable to a breakdown in social interactions in the face of war-related adversities. This finding might also be due to increased exposure to traumatic events among older children.

Traumatic events may have a cumulative adverse effect on children's mental health^{33,54}. Similarly, in both, 7-12 and 13-17 age groups, exposing traumatic events strongly associated with increased emotional and behavioural problems. The number of traumatic events was also predicting higher TDS. These findings may conceptualise as more traumatic events worst mental wellbeing for refugee children. The results also point out the importance of protecting children from any more traumatic incidents as soon as possible to prevent them emerging from further psychological problems.

Prosocial skill is a protective factor against the development of psychosocial problems. Similarly, our findings showed negative correlations between prosocial behaviour and emotional, conduct and peer problems. Children's hyperactivity and conduct scores correlated to peer problems. Neurodevelopmental disorders such as hyperactivity may be a risk factor for the development of other psychiatric disorders by deteriorating social attendance. It is also important to point out that high rates of hyperactivity problems which were observed in our study may be related to PTSD's hyperarousal symptomatology which may lead to irritability, anger, concentration problems and easily startling.

Although several factors found to be associated with higher TDS, parent's history of maltreatment/torture was the only factor predicting children's TDS in logistic regression. The finding points out how parent's previous stressful experiences may have adverse effects on children's mental health. Having a less educated father was also predicting more emotional problems in children. In a new study, similar findings were also reported⁵¹ which pointed out the importance of psychosocial well-being of parents on the mental well-being of their siblings³⁶. Fathers with a higher education background may have better-coping strategies to protect their children or may be more successful in maintaining a supportive milieu that might be protective for refugee children.

It has been criticised that treatment of contagious diseases which threaten host countries are prioritised while mental health disorders are not attracting attention^{16,55}. Our findings showed high rates of emotional and behavioural problems which may have an everlasting effect on the psychosocial and academic development of children and adolescents. Refugee mental health must be one of the leading components of the support program for refugee children and adolescents that requires 'strong collaboration with the global community'⁵⁵. Despite the substantial evidence which shows psychiatric disorders are prevalent among refugee children, there is only one specialised child psychiatry unit to take care of refugee children which hire a culturally oriented translator in Turkey³⁵, the leading refugee-hosting country. We hope that our findings will encourage clinicians, health care workers, and policymakers to provide psychosocial support in the care programs with the collaboration of schools, health care services, and specialised child psychiatry units to help refugee children and adolescents. We also recommend focusing on comparison of mental wellbeing of refugee children who attend to transient education centres and public schools in further studies.

Limitations

It is required to acknowledge several limitations of our study. Psychological assessment of children requires multiple informants and careful observation of the child. Gathering information by questionnaire and using parents as the only source of information are limitations of the present study. Moreover, lack of control sample is another limitation of our study.

In conclusion, the study pointed out high prevalence rates of emotional and behavioural problems among Syrian kids in a school sample, years after resettlement in Turkey. Results also showed high exposure rates to severe traumatic events during the war. Despite high rates of psychological problems that may diminish their social and academic functioning, none of the children was able to reach mental health care services due to several barriers. We think that mental health of refugee children is a public health crisis that requires the collaboration of international community and policymakers to support mental health providers in undeveloped countries which host the most of refugee children to protect child survivors against the development of future psychiatric disorders and functionality loss that may cause a lost generation.

Conflict of interest

The authors disclose no conflict of interests.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent

Informed consent was obtained from all the parents and children participated in the study.

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