

# School-based Cognitive-Behavioural Therapy Group Intervention for Refugee Children who have Experienced War-related Trauma

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## ABSTRACT

**This study evaluated the effectiveness of a school-based group intervention designed for children who have experienced trauma. Twenty-six children (aged 11–15 years) who were refugees or asylum-seekers from war-affected countries participated. The manual-based intervention consisted of cognitive-behavioural therapy (CBT) techniques and was implemented within secondary schools. The treatment group ( $n = 15$ ) received six sessions of group CBT over a 6-week period, while the control group ( $n = 11$ ) were placed on a waiting list for 6 weeks and then invited to enter treatment. Children in the CBT group showed statistically significant, but clinically modest improvements following the intervention, with decreases in overall severity of post-traumatic stress symptoms. Significant improvements were also found in overall behavioural difficulties and emotional symptoms. Children in the waiting list control group did not show any improvements over the same period. However, follow-up data, which were only available for a small subset of eight children, suggest that gains in the CBT group were not maintained at 2-month follow-up.**

## KEYWORDS

*children, group CBT, PTSD, refugees, school*

CIVILIAN POPULATIONS HAVE been increasingly targeted during recent wars, ethnic-cleansing campaigns and periods of political unrest. This has resulted in an estimated 21 million refugees and displaced people worldwide, almost half of whom are children (United Nations High Commissioner for Refugees [UNHCR], 2003). According to government statistics, an estimated 103,080 individuals, including dependants, applied for asylum in the UK in 2002. Of these applicants 6200 were unaccompanied children, aged 17 and under. Figures such as these demonstrate that there is a significant and growing number of young refugees now living in the UK, the majority of whom live in London.

Many young refugees are extremely resilient despite the variety of hardships they

*Clinical Child Psychology and Psychiatry* Copyright © 2005 SAGE Publications (London, Thousand Oaks and New Delhi) Vol 10(2): 235–250. DOI: 10.1177/1359104505051214 www.sagepublications.com

encounter. However, refugee children remain at increased risk of developing mental health difficulties due to the traumatic experiences and multiple losses, which the majority of these children have suffered (Hodes, 1998; Rousseau, 1995). Many no longer have the support of their community and customs. They are also vulnerable because of the ongoing stressors they are subjected to while living within a host country. These include financial hardship, frequent accommodation changes with resulting changes in schools, uncertainties over asylum applications, as well as the challenges of adapting to a different culture and learning a new language. Refugees may also face racial discrimination or persecution due to the negative image of asylum-seekers frequently portrayed by the media.

Symptoms of post-traumatic stress disorder (PTSD) are common among children from war-affected countries. PTSD is characterized by exposure to an extremely stressful or catastrophic event or situation followed by three symptom clusters. These include: repeated reliving of the trauma, e.g. through intrusive images or dreams of the event; hyperarousal, e.g. increased vigilance or disturbed sleep; as well as persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (American Psychiatric Association [APA], 1994; World Health Organisation [WHO], 1992).

PTSD symptoms have been found repeatedly in young people of different cultures following their exposure to war (Mghir, Freed, Raskin, & Katon, 1995; Sack, Clarke, & Seeley, 1996; Thabet & Vostanis, 1999). The prevalence rates are high; for instance, one third of Central American refugee children met criteria for PTSD (Arroyo & Eth, 1985) and 50% of adolescent Cambodian refugees were identified with the disorder (Kinzie, Sack, Angell, Manson, & Rath, 1986). Based on the few longitudinal studies available, PTSD also appears to be extremely persistent in young refugees (Sack, Him, & Dickason, 1999). One follow-up study of young Cambodian refugees, who had been traumatized as children, revealed that 3 years after they were first assessed, 48% still had PTSD, which was almost identical to the percentage found at the initial interview (Kinzie, Sack, Angell, Clarke, & Ben, 1989). Children exposed to war also appear to have increased rates of depression and anxiety (Papageorgiou et al., 2000; Zivcic, 1993). According to Hodes (1998), an estimated 40% of young refugees in Britain may have psychiatric disorders, including PTSD, depression and anxiety.

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**ACKNOWLEDGEMENTS:** We would like to express our thanks and appreciation to Jane Hessami, John Waugh and Claire Knight, the EMAG teachers who helped us set up and conduct this study within their schools. We are also grateful to all the children who participated.

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For PTSD, as for other types of anxiety disorders, cognitive-behavioural therapy (CBT) appears to be the treatment of choice (Foa & Meadows, 1997). However, at present no studies have been conducted to evaluate the use of CBT with young refugees. This study therefore aims to investigate whether CBT is an effective intervention for refugee children, who are from diverse cultural backgrounds and are suffering from PTSD symptoms, which are the result of multiple war-related traumatic events, rather than a single traumatic incident.

Unfortunately, numerous barriers prevent young refugees with mental health difficulties from accessing mainstream mental health services. Therefore, innovative methods of providing treatment are required. An ideal setting in which to offer such help would appear to be within schools. Where natural groupings of traumatized children already exist in communities or schools, group treatment becomes a practical way of helping large numbers of individuals at once. Therapeutic groups have the additional advantage of decreasing the children's sense of hopelessness and loneliness, as well as normalizing their reactions. School-based interventions have the potential to provide non-stigmatizing, easy access to mental health care for large numbers of refugee children.

To date, only one study has evaluated a school-based mental health service for psychologically distressed refugee children (O'Shea, Hodes, Down, & Bramley, 2000). In this study, teachers identified 14 refugee students who were experiencing psychological difficulties and referred them to a mental health worker, who offered treatment on the school site. These children had been exposed to high levels of past violence and losses, as well as ongoing socio-economic adversity. The study demonstrated that teachers were able to identify psychologically distressed refugee children. It also showed that the Strengths and Difficulties Questionnaire (SDQ) had a high sensitivity for detecting psychiatric disorders within this sample of children. A variety of psychological and family interventions were offered. Improvements in the children's behaviour were reported following the intervention with a reduction in SDQ scores. Most importantly, this model of mental health provision was found to be acceptable to the children, families and school. The success of this programme indicates that further research is now required to evaluate the potential benefits of similar school-based mental health services. However, for such services to be considered a practical option within the tightly budgeted National Health Service (NHS), interventions need to be developed which can be delivered to much larger numbers of children and may be implemented by teachers or other members of school staff.

The 'Children and War: Teaching Recovery Techniques' manual (Smith et al., 2000) was developed for precisely this purpose. The manual provides adults who are not trained mental health professionals with the knowledge and skills necessary to conduct effective group interventions. It offers a systematic cognitive-behavioural approach to the treatment of PTSD in children. The intervention is a psycho-social-educational programme whose main purpose is to educate children about the symptoms of PTSD and to teach them appropriate coping strategies. The core symptoms of PTSD (intrusion, arousal and avoidance) are addressed within the sessions. During the sessions that focus on intrusive symptoms, children discuss the ways in which traumatic reminders upset them. They practise imagery techniques in order to gain more control over their troubling intrusive images. They are also introduced to dual attention techniques (similar to some EMDR techniques) and advice on how to manage frightening, repetitive dreams. To reduce arousal, the children first learn to identify their reactions and then practise using breathing and progressive muscle relaxation exercises. They are taught to schedule pleasurable activities for themselves, to improve their sleep hygiene, and to

develop and practise coping self-statements. In sessions which address symptoms of avoidance, the group members are introduced to the concept of graded exposure and are given a short practice session in imaginal exposure. They are encouraged to draw, write and talk about upsetting wartime events. In addition, group members are encouraged to look to the future rather than the past. The content of the six manual-based sessions, which were offered in this study, is summarized in Table 1.

To date, this manual has been implemented with good results in both Turkey and Greece ([www.childrenandwar.org](http://www.childrenandwar.org)). However, our investigation is the first study to evaluate the effectiveness of this manual-based CBT intervention when used in British schools with groups of refugee children suffering from war-related trauma.

## Method

### **Pilot study**

A pilot study was carried out with seven asylum-seeking children to test the feasibility and effectiveness of implementing the manualized protocol within a London school. The children were assessed for depressed mood and behavioural symptoms prior to and following group intervention using the Birmleson Depression Self-Rating Scale (DSRS; Birmleson, 1981) and the teacher-rated version of the SDQ (Goodman, 1994). Statistical analyses of the data produced favourable results but owing to the small sample size, no statistically significant differences emerged post treatment. The pilot study demonstrated that the manual was easy to use, the intervention was acceptable to teachers, parents, as well as children, and most importantly, the children's mood and behaviour appeared to improve following the intervention.

### **Main study's setting**

A larger, more sophisticated study was conducted to test the effectiveness of this manual within British secondary schools. Two secondary schools participated, one in south London and the other in north London. Both were state-funded, co-educational, comprehensive schools. Group sessions were held within small classrooms used by Ethnic Minority Achievement Group (EMAG) teachers.

### **Participants**

Twenty-six children, who were refugees or asylum-seekers from war-affected countries and had experienced traumatic events, took part in the study. These children were chosen by their school's EMAG teachers because they had been exposed to particularly traumatic events and their teachers thought that they were experiencing psychological or behavioural difficulties as a result. Most of the referred children had spoken briefly to their teachers about their traumatic wartime experiences. Teachers were concerned about their emotional well-being after hearing of the severe losses they had suffered. Teachers stated that most of the referred children appeared sad, withdrawn, tired and preoccupied at school. Only a very small number of the referred children were displaying challenging behaviour within the classroom. Children with learning difficulties or those who had not yet learned to speak, read or comprehend conversational English were excluded. Table 2 details the demographic characteristics of the participants. As described in Table 2, the two groups of children were well matched on all demographic variables except age. The children in the CBT group were significantly younger than those in the control group ( $t(24) = -2.695, p = .013$ ).

*Table 1.* Content of weekly manual-based intervention sessions

| <i>Session number</i> | <i>Topic</i>   | <i>Activity</i>   |
|-----------------------|--|---|
| 1                     | <p>Introduction and Ground Rules</p> <p>Normalizing: Common Experiences in War</p> <p>Psycho-education: Stress Reactions<br/>Rehearsal Relief</p> <p>'Safe Place' Coping Technique</p> <p>Homework</p> | <p>Look at and discuss war-related newspaper/magazine photos</p> <p>Discuss common reactions to trauma</p> <p>Discuss, draw and write about traumatic war experiences</p> <p>Imagine then draw or cut out a picture from a magazine of a 'Safe Place'</p> <p>Practise visualizing the 'Safe Place'</p>  |
| 2                     | <p>Psycho-education: Intrusion<br/>Imagery Techniques</p> <p>Dual Attention Tasks (EMDR technique)</p> <p>Homework</p>   | <p>Discuss intrusive thoughts and images</p> <p>Practise hand and distance, screen techniques and using imaginary helpers</p> <p>Look at drawing or imagine a traumatic experience while tapping their hands and then look at or imagine their 'Safe Place' while tapping</p> <p>Practise imagery techniques</p>  |
| 3                     | <p>Dream Work</p> <p>Sleep Hygiene</p> <p>Homework</p>   | <p>Draw pictures, write about and discuss bad dreams</p> <p>Dream restructuring (incorporate and practise a different positive ending)</p> <p>Make dreamcatchers</p> <p>Discuss importance of a regular nightly routine and relaxing activities, e.g. praying, reading and listening to soothing music</p> <p>Rehearse different positive endings to bad dreams</p> |
| 4                     | <p>Psycho-education: Arousal</p> <p>Relaxation Techniques<br/>Coping Self-statements</p> <p>Homework</p>   | <p>Discuss and demonstrate bodily reactions to stress</p> <p>Practise progressive muscle relaxation</p> <p>Discuss and write down coping self-statements</p> <p>Practise relaxation techniques or coping self-statements</p>  |
| 5                     | <p>Psycho-education: Avoidance</p> <p>Homework</p>   | <p>Discuss traumatic reminders, graded exposure and fear hierarchies</p> <p>Practise imaginal exposure with muscle relaxation or 'Safe Place'</p> <p>Practise imaginal exposure, drawing or writing about traumatic events</p>  |
| 6                     | <p>Activity Scheduling</p> <p>Looking Towards the Future</p> <p>Homework</p>   | <p>Discuss the importance of doing enjoyable things, plan weekly activities</p> <p>Discuss, write about and draw pictures of future hopes/ambitions</p> <p>Remember to do the scheduled enjoyable activities</p>  |

Table 2. Demographic characteristics of the 26 participants

|                                       | CBT group<br>(n = 15) | Control group<br>(n = 11) | Significance    |
|---------------------------------------|-----------------------|---------------------------|-----------------|
| Mean age; years (SD)                  | 12.47 (0.74)          | 13.46 (1.13)              | **a             |
| Mean length of time in UK; years (SD) | 2.10 (1.15)           | 1.91 (0.92)               | ns <sup>a</sup> |
| Gender                                |                       |                           | ns <sup>b</sup> |
| Male                                  | 10                    | 7                         |                 |
| Female                                | 5                     | 4                         |                 |
| Country of origin                     |                       |                           | ns <sup>b</sup> |
| Kosovo (Albanian)                     | 7                     | 4                         |                 |
| Sierra Leone                          | 7                     | 3                         |                 |
| Turkey (Kurdish)                      | 1                     | 2                         |                 |
| Afghanistan                           | 0                     | 1                         |                 |
| Somalia                               | 0                     | 1                         |                 |
| Legal status                          |                       |                           | ns <sup>b</sup> |
| Asylum-seeker                         | 15                    | 9                         |                 |
| Refugee                               | 0                     | 2                         |                 |
| Arrived as unaccompanied children     | 2                     | 4                         |                 |
| Native language                       |                       |                           |                 |
| Albanian                              | 7                     | 4                         |                 |
| Krio                                  | 7                     | 3                         |                 |
| Kurdish                               | 1                     | 2                         |                 |
| Farsi                                 | 0                     | 1                         |                 |
| Somali                                | 0                     | 1                         |                 |
| Religion                              |                       |                           |                 |
| Muslim                                | 7                     | 10                        |                 |
| Christian                             | 7                     | 1                         |                 |
| None declared                         | 1                     | 0                         |                 |

ns = not significant.

\*\* Significance levels of  $p \leq .01$ .

<sup>a</sup> Significance levels for mean age and length of time in UK were determined using independent *t*-tests.

<sup>b</sup> Fisher's exact test was used to determine significance levels for gender, country of origin and legal status.

### Study design and procedure

In order to set up the study, a brief educational meeting was first arranged with the EMAG teachers at each participating school. PTSD symptomatology in children, as well as the content and aims of the group intervention were discussed. The EMAG teachers then referred appropriate refugee or asylum-seeking students to the study. Children identified as potential participants were invited to attend a short meeting in which the purpose and content of the group sessions were discussed. Informed consent was obtained from all the children participating in the study, as well as their parents or legal guardians.

In each school, the children were divided into two separate groups of approximately equal numbers, with one group of children allocated to treatment and the other group to the waiting list control condition. Figure 1 shows the number of children belonging to each group at these two schools. Group allocation was not random, and was based primarily on the student's availability. For example, the schools allowed their refugee students to miss art, physical education (PE) or music classes in order to attend the CBT group sessions, but discouraged them from missing more academic subjects, such as English or maths. Therefore, if a large number of refugee children shared the same art, PE or music class time then they were often allocated to the CBT group and met together

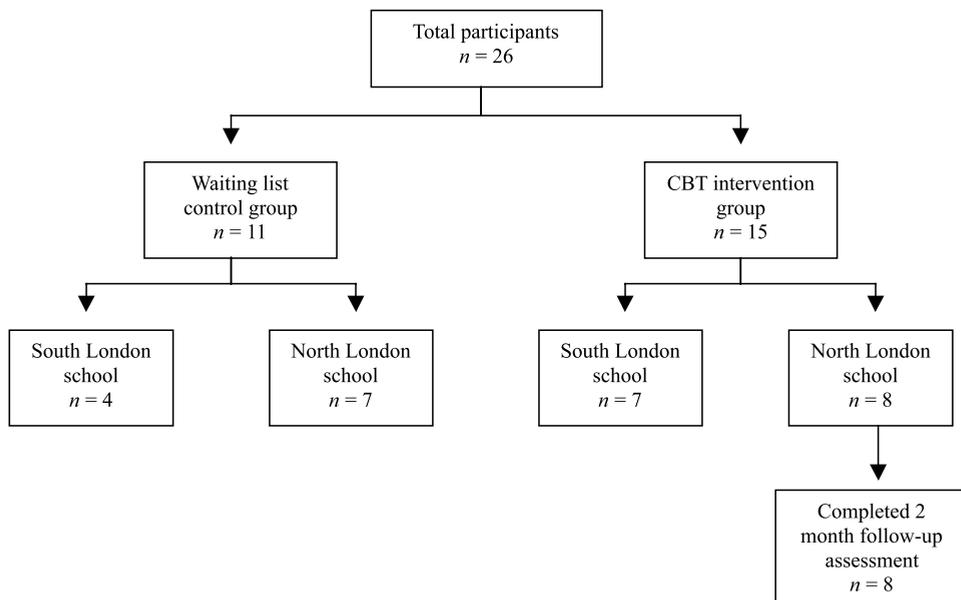


Figure 1. Study design.

during that designated period. In addition, students with impending exams were often placed in the waiting list control group so that they would not miss any important teaching or revision time prior to their exams. After waiting 6 weeks, children in the control group were then invited to enter treatment. Children in the treatment group attended a weekly 1-hour group session for 6 weeks. Groups consisted of up to eight children. Sessions were held within the school during class time and occurred over a 6-week period. The content of these sessions was manual based. Each session was conducted by a clinical psychology trainee. The trainee received supervision prior to and throughout the intervention period from two of the clinical psychologists, who had developed the manual.

Assessments were conducted for both groups twice: first at baseline (time 1), then again at (time 2) post treatment for the CBT group and the end of the intervention-free waiting period for the control group to measure the efficacy of the CBT group intervention relative to the no-treatment control condition. Baseline assessments included a semi-structured interview using an adapted version of the War Trauma Questionnaire (WTQ; Macksoud, 1993) to collect demographic details and information regarding past traumatic experiences. At each assessment, the children completed self-report measures for PTSD symptoms, depression and anxiety. All measures were administered in English. In addition, each child's teacher was asked to complete behaviour ratings.

Eight children, who had been members of the first CBT group conducted in north London, were assessed at a 2-month follow-up to measure the durability of therapeutic changes. At the follow-up, these children completed self-report measures for PTSD symptoms, depression and anxiety. However, there was not enough time for their teachers to complete the behaviour ratings because it was the final week of the school term. Unfortunately, it was not possible to re-assess the seven children from the CBT group in south London 2 months after they had completed the group intervention because they were away for their summer holidays at that time.

### Measures

The main outcome measure was the 13-item Revised Impact of Event Scale (R-IES; Smith, Perrin, Dyregrov, & Yule, 2003), which is a self-report scale designed to assess PTSD symptoms in children by measuring symptoms of intrusion, arousal and avoidance. The children were also asked to complete the DSRS (Birleson, 1981) and the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978). In addition, each child was interviewed using the WTQ (Macksoud, 1992), which includes 32 yes/no questions regarding events that the child may have experienced during war. This questionnaire was originally developed by Macksoud for use in Lebanon but was later adapted for use throughout Bosnia-Herzegovina by UNICEF. It was again adapted for use in this study. The total score (range 0–32) provides a useful indication of the child's level of exposure to trauma. Class teachers were also asked to complete a brief behavioural screening measure, the SDQ (Goodman, 1994), for each participant.

### Statistical analysis

Data summary and routine analyses were carried out using SPSS for Windows (Version 10.0). The majority of statistical tests were parametric. However, in cases where data were skewed, an equivalent non-parametric test was performed. Separate analyses of covariance (ANCOVA) were used to detect differences in the outcome measures between the CBT group at pre-treatment (time 1) to post treatment (time 2) and the waiting list control group at pre-treatment (times 1 and 2). If statistical significance or trends were found then further investigation was carried out using corrected paired *t*-tests. Paired *t*-tests were also used to evaluate the effectiveness of the CBT group intervention (by detecting differences between pre- and post-treatment scores) and the durability of treatment (by detecting differences between pre-treatment and 2-month follow-up scores). Pearson's correlation coefficient was calculated to examine the relationship between wartime exposure and symptoms of PTSD.

## Results

### Baseline data: Initial assessment findings

*Clinical characteristics of the participants* All 26 children had been exposed to extremely high levels of war-related trauma and had suffered severe losses while living in their former war-affected countries, as depicted in Table 3. Approximately one third of the children ( $n = 10$ ) reported that at least one of their parents had been killed in the war. More than half had seen dead bodies, witnessed someone being killed or severely injured, had a close personal friend killed, or strongly believed that they themselves would be injured or killed. Of the 32 war-trauma experiences, the mean number recalled by the participants was 16.5 (range 5–28, SD 5.9). The total number of experienced war traumas was significantly associated with PTSD symptoms on the IES total ( $r = .684$ ,  $p = .000$ ), intrusion ( $r = .510$ ,  $p = .008$ ) and avoidance ( $r = .521$ ,  $p = 0.006$ ) scores.

Clinical data, collected from the participants through self-report and screening measures, are presented in Table 4. It is important to note that the psychometric properties of these measures have not yet been demonstrated with populations of refugee children. The cut-offs used were based on British and American normative data from children exposed to peacetime trauma and therefore must be interpreted with caution. Of the 26 children, 92.3% ( $n = 24$ ) scored above the cut-off for likely diagnosis of PTSD, 19.6% ( $n = 5$ ) had depression scores similar to those found in children with clinically diagnosed depression, and more than 61.5% ( $n = 16$ ) had depression scores above the

Table 3. Traumatic wartime experiences reported by the 26 participants on the War Trauma Questionnaire (WTQ)

| Wartime experiences   | % YES (Number) |
|---|----------------|
| Separations   |                |
| From both parents   | 14.8 (4)       |
| From either parent  | 44.4 (12)      |
| Home and possessions  |                |
| Home was seriously damaged (shelled or burned)                              | 81.5 (22)      |
| Forced by violence or threat of violence to leave home                      | 92.6 (25)      |
| Things were stolen from home  | 81.5 (22)      |
| Money or things were stolen from you while fleeing the country              | 18.5 (5)       |
| Threat and harm to loved ones   |                |
| Family member/close friend was missing or unaccounted for                   | 37.0 (10)      |
| Family member/close friend was threatened with violence or death            | 81.5 (22)      |
| Family/close friends were hurt  | 88.9 (24)      |
| Family member was taken to a prison or camp                                 | 11.1 (3)       |
| A loved one was tortured  | 37.0 (10)      |
| Direct physical contact with danger   |                |
| Fear of death due to hunger   | 37.0 (10)      |
| Fear of death due to cold   | 22.2 (6)       |
| Physically assaulted  | 7.4 (2)        |
| Witnessing violence   |                |
| Saw massive destruction of property (bridges/buildings burned/shelled)      | 70.4 (19)      |
| Saw shelling or bombing from a very close distance                          | 37.0 (10)      |
| Saw shooting from a very close distance                                     | 51.9 (14)      |
| Saw looting, burglary or serious vandalism of property                      | 74.1 (20)      |
| Saw someone who was severely injured  | 81.5 (22)      |
| Saw dead bodies   | 77.8 (21)      |
| Saw someone being killed or severely injured                                | 63.0 (17)      |
| Saw many people being killed at once (a massacre)                           | 22.2 (6)       |
| Saw someone being taken prisoner by soldiers                                | 81.5 (22)      |
| Physical threat   |                |
| A grenade or bomb landed so close that it could have caused injury or death | 14.8 (4)       |
| Soldiers or men with guns came to the house                                 | 81.5 (22)      |
| Personally threatened with death or serious harm                            | 14.8 (4)       |
| Strongly believed that you would be seriously hurt or killed                | 77.8 (21)      |
| Losses  |                |
| Father was killed in the war  | 25.9 (7)       |
| Mother was killed in the war  | 11.1 (3)       |
| Brother or sister was killed in the war                                     | 14.8 (4)       |
| A close member of the extended family was killed in the war                 | 51.9 (14)      |
| A close personal friend was killed in the war                               | 55.6 (15)      |

normal range. The children's self-reported anxiety levels were raised with the mean score being (16.58, SD = 6.83) slightly higher than American normative data (mean score = 13.84, SD = 5.79, Reynolds & Richmond, 1978). Of the 19 teacher-rated SDQs completed, 42% ( $n = 8$ ) reached 'caseness' (scores falling within the borderline and abnormal range) on either overall behavioural difficulties, or at least one of the subscales with the most frequent areas of difficulty being peer problems, hyperactivity/inattention and low levels of prosocial behaviour. Therefore, these children were found to be experiencing high levels of psychological and behavioural difficulties. No significant differences were found between the CBT and control groups on these baseline symptom and screening measures.

Table 4. Pre-treatment (time 1) to post-treatment (time 2) symptom scores for the CBT group and waiting list control group at pre-treatment (time 1 and 2)

| Measure                    | CBT group (n = 15)  |                     |            | Control group (n = 11) |                     |            |
|----------------------------|---------------------|---------------------|------------|------------------------|---------------------|------------|
|                            | Time 1<br>Mean (SD) | Time 2<br>Mean (SD) | Sig.       | Time 1<br>Mean (SD)    | Time 2<br>Mean (SD) | Sig.       |
| R-IES Total                | 39.80 (8.40)        | 33.80 (9.71)        | **         | 38.55 (8.37)           | 42.18 (9.38)        | ns         |
| Intrusion                  | 13.53 (3.25)        | 10.47 (4.26)        | **         | 12.36 (3.78)           | 13.18 (3.71)        | ns         |
| Avoidance                  | 14.60 (3.40)        | 12.67 (5.14)        | ns         | 13.91 (4.95)           | 14.73 (4.25)        | ns         |
| Arousal                    | 11.80 (5.69)        | 10.67 (5.43)        | ns         | 12.27 (2.20)           | 14.27 (4.03)        | ns         |
| DSRS Total                 | 12.33 (4.70)        | 11.67 (3.62)        | ns         | 12.00 (5.37)           | 13.00 (6.57)        | ns         |
| RCMAS Total                | 16.87 (7.22)        | 14.67 (7.12)        | ns         | 16.18 (6.57)           | 18.91 (6.04)        | ns         |
| WTQ Total                  | 17.53 (6.63)        |                     | ns         | 15.18 (5.38)           |                     |            |
| SDQ Total Difficulties     | 9.20 (7.76)         | 5.40 (4.35)         | * (n = 10) | 6.43 (4.69)            | 5.43 (4.28)         | ns (n = 7) |
| Emotional symptoms         | 2.10 (2.03)         | 0.80 (1.23)         | **         | 2.14 (1.35)            | 1.14 (0.90)         | ns         |
| Peer relationship problems | 2.90 (1.73)         | 2.00 (1.49)         | ns         | 2.00 (1.92)            | 1.57 (1.72)         | ns         |
| Conduct problems           | 1.40 (2.55)         | 1.00 (1.83)         | ns         | 0.14 (0.38)            | 0.43 (0.79)         | ns         |
| Hyperactivity/ inattention | 2.80 (2.97)         | 1.60 (1.43)         | ns         | 2.14 (3.63)            | 2.29 (3.50)         | ns         |
| Prosocial behaviour        | 6.90 (2.56)         | 7.00 (2.71)         | ns         | 7.43 (2.30)            | 6.86 (2.12)         | ns         |

ns = not significant; \* $p \leq .05$ ; \*\* $p \leq .01$ .

Significance levels were determined using paired  $t$ -tests for all variables, the only exception being that the Wilcoxon signed ranks test was performed for the SDQ.

### Post-treatment data: Efficacy of the CBT group intervention

Pre- and post-treatment mean symptom scores for the two groups, as well as significant changes as determined by paired  $t$ -tests and the Wilcoxon signed ranks test are shown in Table 4.

**PTSD symptoms** ANCOVA found a highly significant difference between groups in overall PTSD symptom severity ( $F(1,23) = 10.955, p = .003$ ). Paired  $t$ -tests revealed a significant decrease in overall PTSD symptoms within the CBT group ( $t(14) = 2.934, p = .011$ ) and a non-significant trend towards an increase in total symptoms in the control group ( $t(10) = -2.003, p = 0.073$ ). ANCOVA detected another highly significant difference between groups on the intrusion subscale score ( $F(1,23) = 9.702, p = .005$ ). Paired  $t$ -tests found that the CBT group showed a significant reduction in intrusive symptoms ( $t(14) = 3.826, p = .002$ ) whereas there was no significant change in the control group. ANCOVA also revealed a significant difference between groups on the arousal subscale score ( $F(1,23) = 4.741, p = .040$ ). Paired  $t$ -tests showed a strong but non-significant trend towards an increase in symptoms of arousal within the control group ( $t(10) = -2.119, p = .060$ ) but no significant change within the CBT group. ANCOVA found no significant difference between groups on the avoidance subscale.

**Depression** ANCOVA found no significant difference between groups on the total depression score.

**Anxiety** ANCOVA revealed a significant difference between the CBT and control group in total anxiety score ( $F(1,23) = 6.495, p = .018$ ). Paired  $t$ -tests showed a non-significant trend towards a decrease in anxiety in the CBT group over time ( $t(14) = 1.581, p = .136$ ), whereas in the control group there was a non-significant trend towards an increase in anxiety ( $t(10) = -2.042, p = .068$ ).

Table 5. Pre-treatment (time 1) to post-treatment (time 2) and pre-treatment to follow-up (time 3) symptom scores for the eight CBT group members assessed at a 2-month follow-up

| Measure     | Pre-treatment       | Post-treatment             | Follow-up           |
|-------------|---------------------|----------------------------|---------------------|
|             | Time 1<br>Mean (SD) | Time 2<br>Mean (SD)        | Time 3<br>Mean (SD) |
| R-IES Total | 38.63 (6.82)        | 31.50 (7.39)               | 39.13 (7.04)        |
| Intrusion   | 13.88 (2.30)        | 10.88 (3.56) <sup>*a</sup> | 12.50 (3.16)        |
| Avoidance   | 14.38 (3.78)        | 12.50 (3.46)               | 14.00 (5.13)        |
| Arousal     | 10.38 (4.53)        | 8.13 (4.94)                | 12.63 (4.81)        |
| DSRS Total  | 11.25 (3.62)        | 12.50 (2.20)               | 10.50 (4.41)        |
| RCMAS Total | 17.50 (7.87)        | 16.75 (8.28)               | 15.88 (8.54)        |

\*  $p \leq .05$ ; Significance levels were determined using paired  $t$ -tests for all variables.

<sup>a</sup> A paired  $t$ -test revealed a significant decrease between time 1 and time 2.

**Behavioural difficulties** Teachers completed the SDQ pre- and post-intervention for 10 of the 15 children in the CBT group. The Wilcoxon signed ranks test found two significant changes on SDQ scores in the CBT group post treatment. CBT group members showed a significant decrease in overall behavioural difficulties ( $Z = -2.207$ ,  $p = .027$ ) and emotional symptoms ( $Z = -2.588$ ,  $p = .010$ ). No significant change in SDQ scores was detected in the control group. According to the qualitative data, 2 of 10 (20%) teachers reported that since attending the CBT group their student's problems were 'much better', six (60%) reported their student's problems being 'a bit better' and another two (20%) answered that they were 'about the same'. Also, nine (90%) of the teachers reported that attending the CBT group had helped their student 'quite a lot' in other ways, e.g. providing information or making the problems more bearable, whereas one teacher (10%) reported that the group had helped 'only a little'.

### **Follow-up data: Durability of therapeutic changes**

Only a small subset of eight children from one of the CBT groups participated in a 2-month follow-up assessment. SDQ data were not gathered at this follow-up because it was the final week of school term and the teachers were too busy to complete the behaviour ratings. Pre-treatment, post-treatment and follow-up mean symptoms scores, as well as significant changes as determined by paired  $t$ -tests, are shown in Table 5. The response of these eight children following the CBT intervention was similar to the response of the total group of 15 children, who had received CBT. These findings suggest that there was an improvement in the children's psychological difficulties following the CBT group intervention. However, analyses of the 2-month follow-up data failed to detect any significant changes or trends on self-reported symptom scores compared with pre-treatment. Although depression and anxiety scores at follow-up were lower than at pre-treatment, the decrease was not significant. PTSD symptom scores had risen since the post-treatment assessment, particularly for symptoms of arousal.

## **Discussion**

This study has shown that refugee children attending London inner city schools experience high levels of psychological distress. However, the self-report questionnaires that were administered do not have established cut-off scores specifically for populations of refugee children. Therefore, the cut-offs developed for British and American children were applied to this group of refugee children. For this reason, the number of children

who exceed the cut-off for likely diagnosis of PTSD, anxiety and depression must be interpreted cautiously. Although this is a limitation, it remains clear that many of the refugee children in this study were suffering from PTSD symptoms and other psychological difficulties. According to British normative data, 24 of the 26 children (92%) exceeded the cut-off for likely diagnosis of PTSD. Elevated levels of anxiety and depression were also reported. Such symptom severity indicates that these young refugees were experiencing mental health difficulties, yet none was accessing specialist help. EMAG teachers were aware of their students' problems and were able to identify those in need of extra support.

Before discussing substantive results, it is important to note that the study has a number of limitations. The number of participants was rather small, and there was further loss of participants at follow-up. Allocation to the two groups (CBT or waiting list control) was not random. Main outcome measures were questionnaire-based self-report rather than interview and their psychometric properties have not yet been established within populations of refugee children. Also, teachers who completed SDQs at time 2 were not blind to group allocation. These limitations leave considerable room for improvement in future studies. Nevertheless, bearing these caveats in mind, there were several interesting findings in the present study.

Children who participated in the CBT intervention reported a significant decrease in overall PTSD symptom severity and intrusive PTSD symptoms. Teachers reported significant improvements in their students' overall behaviour and emotional symptoms following their attendance at the group. Children in the waiting list control group did not show any improvements over the same period. Thus the group intervention resulted in significant improvements in psychological and behavioural functioning. Although there were statistically significant improvements in PTSD symptoms following the intervention, the mean scores on the R-IES remained high (total score = 33.8 and intrusion subscore = 10.5), which indicates that the majority of children continued to experience PTSD symptoms and were still likely to meet diagnostic criteria for PTSD. However, the small decreases in reported symptoms that were achieved could be expected to lead to a better quality of life for these children. The CBT sessions were successful in providing these children with much needed support and the skills to cope with the trauma-related symptoms they were experiencing. Importantly, teachers and children found the school-based group intervention acceptable. The children displayed their interest and enthusiasm for the CBT group by inviting peers, who were also from war-affected countries, to subsequent group sessions.

Members of the control group failed to show any significant improvement. Instead, they reported a non-significant rise in overall PTSD symptom severity, PTSD symptoms of arousal and anxiety.

Unfortunately, post-treatment improvements were not maintained by the eight CBT group members who were re-assessed at a 2-month follow-up. Although post treatment these children had shown a significant decrease in intrusive PTSD symptoms and a non-significant trend towards a decrease in overall PTSD symptom severity, these improvements were no longer apparent at follow-up. It is likely that these findings were influenced by international events, which were taking place at the time of re-assessment. There had been a recent flare up of violence in Macedonia, where many of the children's family members and friends had been living since the war in Kosovo. This undoubtedly led to an increase in war-related thoughts and worries for the Kosovan children. As seven of the eight children being re-assessed were from Kosovo, this may explain the return of PTSD symptoms. However, it is also possible that the six-session intervention was too brief or too 'dilute' when delivered in a group format. The addition of 'booster' sessions

might have been useful in maintaining improvements. Also, perhaps offering parallel sessions to the children's parents and carers would have resulted in more supportive home environments for the children, which may then have led to more lasting gains.

This study has partly replicated the findings of O'Shea et al. (2000) as it demonstrates that by working collaboratively with teachers, a population of children that does not readily access mental health facilities can receive such help through a school-based service. Although both studies achieved positive results, they relied on different models of service delivery and targeted different groups of distressed refugee children. In the study by O'Shea et al. (2000) mental health professionals visited a primary school for one half a day per week and performed consultation or individual work with refugee children who were distressed for a variety of reasons. Many of the refugee children in the O'Shea et al. study were experiencing behavioural difficulties. The children had more externalizing symptoms and a mean SDQ score that was much higher than in the present study. In contrast, the present study was targeted specifically at refugee children who had experienced traumatic wartime events. It also used a less time-consuming strategy for providing help. The intervention's format allowed an individual psychologist to help a group of children during a weekly hour-long session. Also, as the intervention was manual-based, non-mental health professionals could potentially conduct future school-based groups, with appropriate supervision. EMAG or pastoral care teachers appear to be particularly well suited to this type of group work. If teachers were trained to implement these manual-based psychological techniques with groups of children who had experienced trauma, it would represent an important form of capacity building within schools.

It can be an extremely difficult and time-consuming task to set up this type of school-based group intervention. Therefore, it is essential that a dedicated teacher or member of school staff is willing to become heavily involved in the planning and execution. It would be difficult to meet with the children to explain the purpose of the group, collect signed parental consent forms and perform an initial assessment 1 week prior to the first group session without the help of a very motivated member of school staff, whom the refugee children know and trust. It also may not be possible to use this group approach if there are small numbers of refugee children within a school. Not all refugee children will be suffering from PTSD symptoms due to their past experiences so it is important to make sure that those referred for the group are appropriate. If there is only a small number of refugee children who fit the criteria for the group then it may be necessary to conduct the group sessions for children from a range of ethnic backgrounds and ages, who have all had different types of past traumatic experiences. Although such a group is feasible, it may be slightly more challenging to conduct than a more homogenous group.

Several aspects of this study proved challenging. For instance, EMAG teachers described these two secondary schools as being understaffed and sometimes violent settings. This meant that the schools were far from ideal environments for the establishment of therapeutic groups. However, the schools were representative of the type of large, inner London schools, which refugee children typically attend. Teachers within one of the schools also complained that the SDQs were hard to complete because in a school of their size, they did not know their students well enough.

Minor difficulties were encountered when attempting to implement some of the session content suggested in the manual. Although clinical observations confirmed that the children had enjoyed and actively engaged in learning the techniques aimed at reducing PTSD symptoms of an intrusive nature, tackling symptoms of avoidance and arousal proved more difficult within a group format. Post-traumatic symptoms of

avoidance were particularly problematic to address. Although graded exposure is encouraged, it was difficult to implement due to the nature and complexity of the trauma, i.e. war. Graded exposure programmes could have been encouraged for individual children who had more idiosyncratic forms of avoidance but it was difficult to plan such a detailed programme within a group setting. March, Amaya-Jackson, Murray, and Schulte (1998) included an individual 'pull-out' session, which involved meeting each child individually to set up and explain a graded exposure programme based on that child's particular fears, as part of their group CBT for children with PTSD. If time permits, the addition of individual 'pull-out' sessions for specific children who report PTSD symptoms of avoidance is likely to prove beneficial. Practicalities also interfered with implementing strategies for coping with arousal. For instance, although group members enjoyed learning progressive relaxation exercises, it was difficult for the children to genuinely relax during the sessions due to the school's loud, chaotic environment. Sleep hygiene was also difficult to implement because many of the children lived in noisy, overcrowded hostel accommodation.

The intervention also failed to appeal to one specific group of young refugees. At both schools, 15- and 16-year-old Kosovan Albanian boys chose not to take part in the group sessions. These boys considered talking about emotions and past events to be a sign of weakness. They thought that it was best to try to forget their traumatic experiences. Perhaps these boys would have agreed to participate in the sessions if the group leader had been a male teacher, whom they already knew and respected.

Based on the experience of running these groups in two different settings, the following suggestions for improving the intervention's effectiveness and durability are made. A group consisting entirely of children from the same country and ethnic background seems ideal as the children usually have experienced similar traumatic events and share a first language. For groups with more than five older children (aged 11–15) it is helpful to have a group co-leader and with younger children (under the age of 9) it is essential. Mixed-gender groups appear useful as the girls were often more willing to discuss their emotions and this encouraged the boys to do so as well. This group intervention may not be appropriate for newly arrived refugee children because children first require an adequate amount of time to adjust to the host country's culture and language. The group seems suitable for children who have been living in the UK for approximately 2 years. The addition of monthly 'booster' sessions or stretching the intervention to ten sessions may strengthen the durability of post-treatment improvements. The provision of parallel group sessions, which offer parents or adult caregivers information regarding common reactions to trauma and psychological strategies for helping their children, is also likely to result in greater, more lasting improvements in children's symptoms. This manual-based intervention was originally designed to include parallel adult sessions but it proved too difficult to organize such sessions within this study's secondary schools. It would probably be easiest to offer parallel adult sessions within a primary school setting, where parents often have developed a stronger relationship with the school and its staff. At the end of the six sessions, children who display ongoing psychological difficulties should be referred on for more specialized and possibly individual or family therapy.

The present study raises a number of issues, which require exploration through future research. First, it is important to find out whether this study can be replicated in other controlled studies with larger sample sizes. The problem of maintaining positive post-intervention effects should also undergo investigation. It seems likely that the addition of 'booster' sessions or parallel sessions for parents and legal guardians may result in more durable treatment gains. Given that in the current study the comparison group did not receive any form of intervention, it could be argued that the gains were the result of

non-specific effects of psychotherapy, which might also occur with other treatment models, rather than a specific response to cognitive-behavioural techniques. Therefore, future studies are required to compare the effectiveness of this group CBT intervention with other types of group therapy aimed at reducing PTSD symptoms in refugee children. Research could also focus on whether homogenous groups, single-gender groups, or the addition of interpreters or co-leaders improves the intervention's effectiveness. Follow-up assessments would prove informative. The ability of non-mental health professionals to implement this manual-based group intervention remains a particularly important issue to address as the implications are great. As this intervention is a very broad-based package, it should also be deconstructed to determine which components are responsible for the observed improvements. It would also be interesting to offer this six-session manual-based intervention to children individually and then compare the results with those achieved when the intervention is delivered through group sessions to discover which format results in greater improvements.

Psychological treatment opportunities for refugee children who have experienced trauma currently range from non-existent to minimal. The group intervention evaluated in this study has been shown to be effective in reducing PTSD symptoms and behavioural difficulties. It has also been successfully implemented within British schools. This type of group intervention also makes effective psychological help potentially available to a much wider audience of children. This intervention is manual-based, designed for group treatment, and specifically designed to be administered by people who are not mental health professionals. This has the potentially huge advantage of not requiring the usual intensive use and time of many mental health professionals. It also makes the intervention less stigmatizing and more acceptable to refugee children themselves.

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