

School-Based Intervention for Prevention and Treatment of Elementary-Students' Terror-Related Distress in Israel: A Quasi-Randomized Controlled Trial

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A school-based intervention for preventing and reducing children's posttraumatic stress-related symptoms, somatic complaints, functional impairment, and anxiety due to exposure to terrorism was evaluated. In a quasi-randomized controlled trial, elementary school students were randomly assigned to an eight-session structured program, "Overshadowing the Threat of Terrorism" or to a waiting list control comparison group. Two months postintervention, the study group reported significant improvement on all measures. The authors conclude that a school-based universal intervention may significantly reduce posttraumatic stress disorder- (PTSD-) related symptoms in children repeatedly exposed to terrorist attacks and propose that it serve as a component of a public mental health approach dealing with children exposed to ongoing terrorism in a country ravaged by war and terrorism.

Israeli society has been exposed to an unprecedented wave of terrorism. Recent surveys on representative national samples of adults (Bleich, Gelkopf, & Solomon, 2003, 2006) indicated that close to 45% of the population had been directly exposed or had friends or relatives who were exposed to a terrorist attack. Unfortunately, children have also been exposed to high-levels of terror exposure (Pat-Horenczyk et al., in press).

Psychiatric symptomatology that have been identified among youth exposed to war and terrorism in different cultures include PTSD, depression, anxiety, anticipatory

fears, affect-control dysregulatoryities, sleep disturbances, somatic complaints, regressive behaviors, learning difficulties and substance abuse. (Baker & Shaloub-Kerkovian, 1999; Kinzie, Sack, Angell, Masson, & Rath, 1986; Koplewicz et al., 2002; Laor et al., 1997; Pat-Horenczyk et al., 2007; Trappler & Friedman, 1996).

Despite the fact that the aforementioned posttraumatic distress tends to decrease with time, several studies have shown that symptoms may remain pervasive and long lasting, and significantly compromise children's development and well being (Desivilya, Gal, & Ayalon, 1996;

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Dyregorv, Gjestad, & Raundalen, 2002; Laor et al., 1997).

These findings point to the urgent need to provide youth who live under conditions of war and terrorism with community mental health services to enhance their resiliency and to reduce their risk of developing long-term post-traumatic stress (PTSD) symptoms and other psychiatric sequelae.

However, there are several obstacles in implementing broad-scale mental health services to deal with traumatized children due to terrorism. First, most children who suffer from posttraumatic stress symptoms fail to seek treatment and are not referred for psychosocial services by parents or school personnel (Gurwitsch, Sitterle, Young, & Pfefferbaum, 2002). Second, the magnitude of exposure to terrorism and consequently the potentially high prevalence of distressed children requires a broad community-based structure, which can make these services available, feasible, and affordable. The school is an ideal choice for the delivery of community mental health services (Ehnholt, Smith, & Yule, 2005) as it provides an easily accessible naturalistic environment for children, and encourages normalcy and minimizes stigma related to stress reactions and posttraumatic interventions (Pfefferbaum et al., 2003). Furthermore, many stress symptoms are likely to surface within the classroom setting, thereby giving the students an opportunity to practice in vivo the coping skills learned within the program (Yule & Williams, 1990). Finally, the school and the classroom may provide a supportive group environment enhancing and strengthening trauma-related healing processes (Stein et al., 2003). The growing recognition of the widespread adverse impact of trauma exposure on children has recently led to the proliferation of school-based interventions (Jaycox, Stein, Amaya-Jackson, & Morse, in press).

Two types of school-based interventions have been developed to deal with students exposed to traumatic conditions; targeted interventions that are directed toward selected symptomatic children, and universal interventions that do not employ a selection process. Targeted programs have usually dealt with students exposed to community violence, sexual/physical abuse or single-event trauma and have primarily relied upon trauma-focused

cognitive-behavioral models (Deblinger & Heflin, 1996). They have generally created treatment packages comprised of giving psycho-educational material, teaching stress reduction strategies, learning to control trauma-related triggers, modify maladaptive trauma-induced cognitions and processing traumatic experiences (Amaya-Jackson et al., 2003; Cohen & Mannarino, 2004; Stein et al., 2003). Only a limited number of targeted programs that deal with students exposed to war and terrorism such as the UCLA Trauma/Grief Program (Saltzman, Steinberg, Layne, Aisenberg, & Pynoos, 2001) and the Children and War: Teaching Recovery Technique (Ehnholt et al., 2005) have been offered. Targeted interventions, by their selective nature and focus on psychopathological reactions, are "tertiary prevention" models (Caplan, 1974). They tend to remove students from their natural class environments and put them together in a treatment group led by professionals with other students whom they may or may not be familiar.

Different from this approach, universal interventions usually adopt "secondary or primary" prevention models (Caplan, 1974), which tend to focus on building resiliency, strengthening students' resources, and avoiding direct exposure to students' traumatic experiences. School-based universal programs are mostly implemented within classrooms and delivered by school personnel familiar with the students. Furthermore, some of these universal programs use parental involvement as an additional resource.

Three universal school-based programs dealing with students exposed to war and terrorism have thus far been reported. Two programs, Healing after Trauma Skills (HATS; Gurwitsch & Messenbaugh, 2001) and The Building Resilience Project (BRP; Baum, 2005) are based almost exclusively on cognitive-behavioral strategies for dealing with traumatic stress, whereas the Classroom-Based Intervention Program (CBI; Macy, Macy, Gross, & Brighton, 2003) also incorporates expressive therapy techniques and body-oriented interventions. HATS and BRP have not yet provided evidence-based studies and so far relied on qualitative and anecdotal data. The CBI programs provided some preliminary data, but lacked randomized assignment, the use of blind evaluators, and treatment adherence component (Khamis, Macy, & Coignez, 2004).

We present a school-based intervention, Overshadowing the Threat of Terrorism (OTT; Berger, Senderov, Horwitz, Gelert, & Sendor, 2003), that was implemented in Israel to deal with the threat of ongoing terrorism. We have chosen to develop a universal program to (a) deal with the high prevalence of symptomatic children (Pat-Horenczyk et al., in press), and (b) enhance students' resiliency to face the ongoing threat of terrorism. In addition to borrowing several of the cognitive-behavioral components suggested by some of the targeted programs, our intervention also incorporated techniques from art therapy (Appleton, 2001), body-oriented strategies (Rothschild, 2001), and narrative approaches (White & Epston, 1990). In addition, unique to our program, we elicited the participation of the students' parents and families by designing homework assignments that required their cooperation.

This study is a quasi-randomized control trial that examined the effectiveness of OTT in reducing posttraumatic stress symptoms in elementary-school students with various levels of terrorism-related distress.

METHOD

Setting and Participants

This study was conducted between February and May 2003 in a public elementary school in Hadera, Israel, a city that suffered five terror attacks in the past 30 months. The school is 25 meters from the intersection that was the site of two suicide bombings. The program was introduced in the school curriculum. The Ethics Committee of the Ministry of Education approved of the study.

The study was presented first to the principal, the guidance counselor, and the school psychologist. Following their agreement, we presented a 3-hour overview of our program's approach and its rationale to all of the school's personnel. We stressed the potential of the program in alleviating students' distress and in improving their academic functioning. To elicit their motivation, we promised to give them a certificate of treatment completion as well as the OTT manual.

The principal sent letters to the parents outlining the purposes and the nature of the program. Interested parents provided written informed consent to allow their children to complete the study questionnaires and agreed to participate in two psychoeducational sessions.

From the entire school population of 328 second- to sixth-grade students (10 classes in all), 142 students (45.1%) of all the classes participated in the assessment of the program in either the OTT intervention ($n = 70$) or a waiting list (WL; $n = 72$). The remaining 186 students of all the classes (54.9%) underwent the training or the control condition, but were not assessed because their parents did not provide an informed consent or did not agree for their children to participate in two psychoeducational sessions.

Procedure

Five classes were randomly chosen to have an active intervention and five classes were on the waiting list, which included participation in regular social studies classes. Classroom randomization between the active intervention and control group was performed after the completion of the teachers training.

Figure 1 shows the sampling and assignment of students to the active and control groups. Both the intervention (OTT) and control (WL) classes took place within the framework of the weekly social studies classes. During these classes, societal issues are presented and discussed with the home teacher, including political, social, and individual aspects of the Palestinian-Israeli conflict. Each class contained between 27–38 pupils of whom 33% to 51% participated in the assessment. The students' sessions started on a weekly basis immediately following the teachers' training. At the beginning of the project, parents attended two psychoeducational sessions delivered by one of the team members and the school's guidance counselors.

Blinding and Questionnaire Administration

Questionnaires were administered about 1 week before and 2 months after the eight training sessions by trained clinicians blind as to the participants' experimental

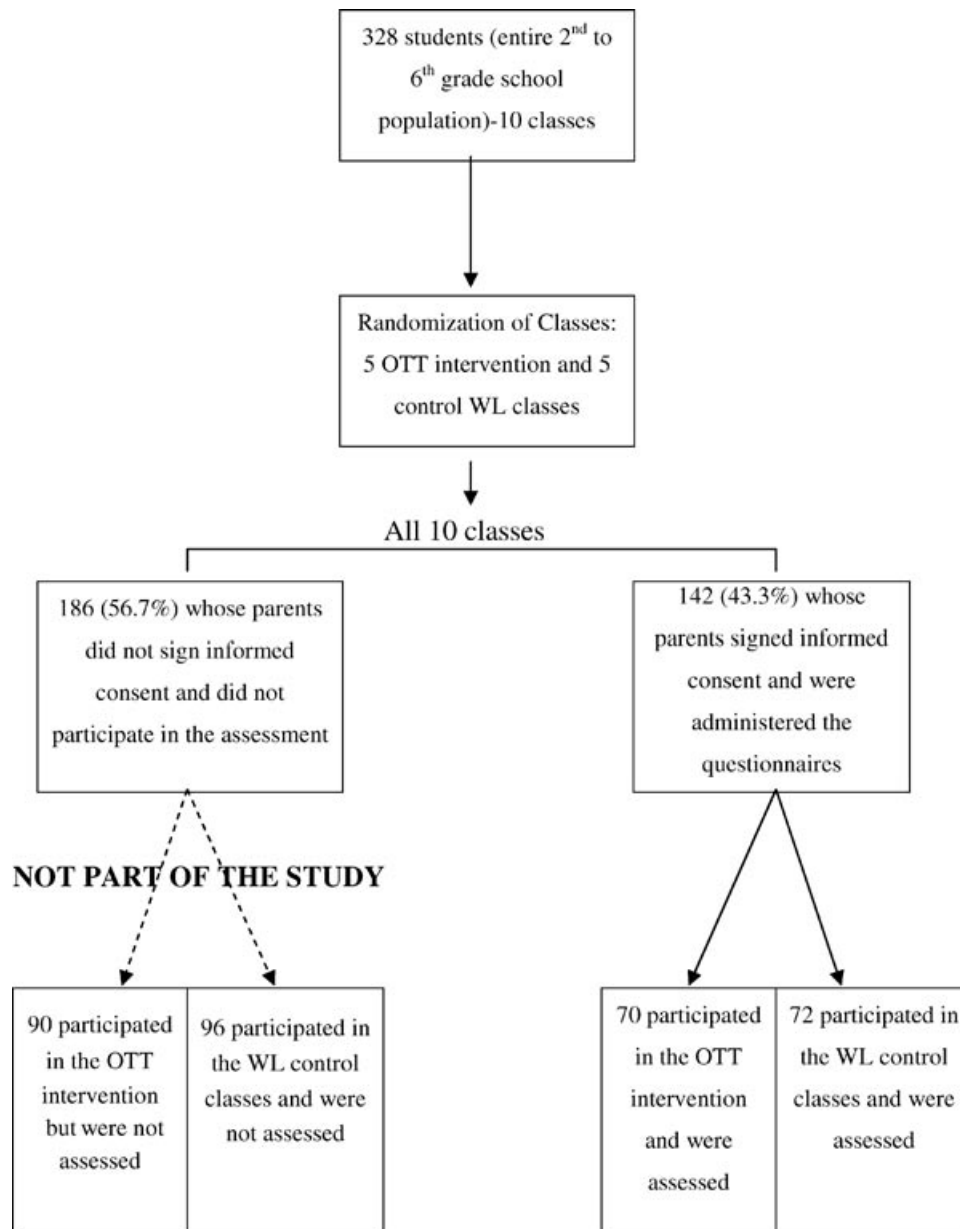


Figure 1. Student flow through the randomization, intervention, and assessment protocol.

condition. This was done in groups of 3–4 pupils in second and third grades and in larger groups of 10–15 students for the fourth, fifth, and sixth graders. For the assessments, children were pulled out of their classrooms during part of the social studies classes. Questionnaires were read aloud to the children and were coded to protect confidentiality; they took about 30 minutes to complete.

Measures

A structured questionnaire including 58 questions was drawn from several questionnaires measuring objective and subjective exposure to terrorism, PTSD symptomatology, functional impairment, somatic complaints, generalized and separation anxiety.

Objective exposure to terrorism was assessed with yes or no responses to eight statements related to degree and type of exposure to terror attacks (Pat-Horenczyk et al., in press). The exposure items were aggregated into three levels of exposure: (a) personal exposure (PE): being present at a terrorist attack with or without being physically injured, or knowing someone close that was injured or killed in such an attack; (b) near-miss (NM): having been near the site of a terrorist attack, or just before or after an attack, or having planned to be at the site of an attack shortly after an attack; (c) no exposure (NE): no exposure except for media coverage. Multiple exposures were categorized according to the more severe category.

Subjective response to trauma exposure was measured by three yes/no questions: whether exposure to terrorism had resulted in the fear that he/she, a family member or a close friend would be killed or injured. One positive response was regarded as meeting Criterion A1 of PTSD (exposure to a traumatic event), as specified in the *Diagnostic and Statistical Manual of Mental Disorders, Text Revision (DSM-IV-TR)*; American Psychiatric Association, 2000).

Significant distress, helplessness, and horror experienced due to terror exposure was assessed with three questions regarding whether participants experienced any of those emotions, using a 5-point scale from 1 (*did not experience this emotion at all*) to 5 (*experienced this emotion often*). So as to avoid overinclusion one score of at least 4 was necessary to fulfill Criterion A2 (*DSM-IV*) of PTSD (Pat-Horenczyk et al., in press).

The number and severity of PTSD symptoms was assessed using the basic version of the UCLA PTSD Index for DSM IV (Child version; Rodriguez, Steinberg, & Pynoos, 1999). This is a 17-item self-report questionnaire, used in the assessment of PTSD and traumatic stress in children. Respondents indicate how frequently they experience a symptom using a 5-point Likert scale ranging from *never experienced* (0) to *experienced very often* (4). A Cronbach's alpha score of .90 was reported, and the test-retest reliability ranged from good to excellent (Steinberg, Brymer, Decker, & Pynoos, 2004). Internal consistency of the Israeli version was similarly highly satisfactory (Cronbach's $\alpha = .90$; Pat-Horenczyk, in press).

Categorical measures of self-reported symptom criteria for PTSD were constructed by assessing whether the reported symptoms met the criteria required for a *DSM-IV* diagnosis. A score of at least 3 was necessary for an item to be considered both as symptom criteria for PTSD and a distinct symptom of traumatic stress. The number of PTSD symptoms (range = 0–17) and a PTSD severity score (sum of scores on all 17 items: range = 0–68) were computed.

Subjective functional impairment was measured using four items derived from the Child Diagnostic Interview Schedule (social relationships, school performance, family relationships, and after-school activities; Lucas et al., 2001). Ratings were on a 5-point scale ranging from 0 (*not at all impaired*) to 4 (*very much impaired*). The functional impairment score was the sum of all four items. The internal reliability of the functional impairment questionnaire was highly satisfactory (Cronbach's $\alpha = .87$).

Somatic complaints related to terrorism were assessed using six yes/no categorical items from the Diagnostic Predictive Scales (DPS; Lucas et al., 2001) The internal reliability of the somatic complaint questionnaire was reasonable (Cronbach's $\alpha = .64$).

Generalized anxiety (eight items) and separation anxiety (seven items) scores were retrieved from the Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher et al., 1997), a self-report inventory assessing anxiety symptoms. Scoring is 1 = *usually not true*, 2 = *sometimes true*, to 3 = *usually true*, relating to current state. Sum scores were calculated. Good convergent and divergent validity was shown (Goenjian et al., 2001; Monga et al., 2000).

Intervention

The intervention OTT is a classroom-based program designed to help children cope with the threat and the exposure to terrorism. Developed by the Israel Trauma Center for the Victims of Terror and War (NATAL), this program provides psychoeducational material and skill training with meditative practices, bio-energy exercises, art

therapy, and narrative techniques for reprocessing traumatic experiences.

The eight 90-minute sessions included homework review, warm-up exercises, experiential group activity, psychoeducational presentation, practical coping skills training, and a closure exercise followed by a new homework assignment. The content of each session is presented in Table 1.

Previous pilot interventions showed the program to be easily learned by teachers, coherent, feasible, and applicable to students aged 7 to 11 years old.

Teacher Training and Training Application

All 10 homeroom teachers participated in five 4-hour training sessions (20 hours) of the OTT course (Berger et al., 2003). Each of the homeroom teachers is responsible for one class only. Half of the homeroom teachers were asked to apply the OTT protocol without the assistance of the trainers in their classes, according to the manual and the

other half were asked not to apply the training at this point in time.

Program Fidelity

During the students' training period, all teachers in the active group participated in three 3-hour supervisory sessions delivered by the trainers to insure fidelity of application of the protocol as well as to overcome potential problems. Adherence to protocol was monitored during these sessions, which included a point-by-point discussion of the training procedure by the trainers.

Data Analyses

All statistical analyses were performed with SPSS 11.5. Rates are reported here as raw numbers, and standard deviations accompany the means. The OTT and WL groups pretest scores (baseline) on demographic, exposure, and clinical variables were compared using two-tailed

Table 1. Description of the "Overshadowing the Threat of Terrorism" (OTT) Sessions

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- Session 1. The stress continuum: From daily stress to trauma—Introduction of the group leaders, the participants, and the program. Overview of the program and setting ground rules. Describing daily stressors and traumatic stressors and the various reactions towards them.
 - Session 2. Resourcing: Enhancing and developing coping skills—Identifying personal resource profiles of participants and providing them with new coping skills.
 - Session 3. Inhabiting your body: Developing body awareness—Learning the role of the body and its function during stress, becoming aware of somatic reactions pertaining to stress and trauma. Developing sensory–motor strategies to control the body during stressful situations.
 - Session 4. Being with your heart: Developing emotional awareness—Enhancing students' emotional awareness, identifying and clarifying feelings, and becoming aware of the connections between sensations and feelings.
 - Session 5. Stopping emotional flooding: Dealing with fears and rage—Identifying signs of fear and rage and learning how to express and cope with them in a productive manner.
 - Session 6. Building a social shield: Enhancing your support system—Exploring social needs and ways to fulfill them better, learning to ask for help, and become more emphatic.
 - Session 7. Looking at the full glass: Reframing negative experiences—Becoming aware of negative thought patterns and learning how to reframe them positively.
 - Session 8. From darkness to light: Looking for a better future - Learning how to build a plan for dealing with future terror-related distress and developing a positive future outlook. Closure to the entire program.

Two Psychoeducation Sessions for Parents

- Exploration of the normative and problematic reactions of children to terror-related events, emphasizing normalization of children's reaction and learning how to support their natural coping mechanism.
 - Resourcing parents and teaching them coping skills such as breathing, mindfulness meditation, relaxation, and guided imagery.
-

independent *T*-tests for continuous variables and chi-square tests for categorical variables. To assess treatment effect, we used a mixed-design repeated measure ANOVA analysis with the intervention as the between group factor and time as the within group factor. Further tests were performed to assess the interaction of time and group with gender and grade level as between subject factors. We did not use a nested design because this would have significantly reduced the power of the analysis and because we subsequently did not find any differences in change scores between the classes on any of the measures within the OTT intervention mode or the WL control classes. There were no missing data.

RESULTS

Demographic and Clinical Sample Characteristics

The OTT experimental and control groups were similar in every baseline variable. Characteristics for gender, age, level of exposure, posttraumatic symptoms, and related distress of the experimental and control classes are presented in Table 2. A little less than half the children were girls; about half of the overall group were in the second to sixth grades. Half of the whole group had been exposed to a terrorist incident by being either present at a terrorist attack or knowing someone close that was injured or killed

Table 2. Gender, Age, Level of Exposure, Posttraumatic Symptoms, and Related Distress of Participants at Baseline

Variable	Experimental (<i>n</i> = 70)		Control (<i>n</i> = 72)	
	<i>n</i>	%	<i>n</i>	%
Gender				
Female	31	44.3	34	47.2
Male	39	55.7	38	52.8
Grade level				
2nd–3rd Grade	35	50.0	34	47.2
4th–6th Grade	35	50.0	38	52.8
Exposure				
Personally exposed physically injured	2	2.9	1	1.4
Personally exposed not physically injured	6	8.6	12	16.7
Know someone close who was hurt	29	41.4	26	36.1
Know someone close who died	12	17.1	15	20.8
Was supposed to be at the place of an attack	18	25.7	27	37.5
Was at the place of the attack before/after	23	32.9	32	44.4
Was near the place when the attack occurred	28	40.0	34	47.2
Level of exposure—categories				
Personal exposure (PE)	34	48.6	38	52.8
Near miss (NM)	16	22.9	18	25.0
No exposure (NE)	20	26.8	16	22.2
PTSD symptoms				
Symptom criteria for PTSD	6	8.6	5	(6.9)
Number of symptoms of PTSD endorsed, <i>M</i> (<i>SD</i>)	7.6	(3.9)	6.7	(3.8)
Mean PTSD symptoms severity score, <i>M</i> (<i>SD</i>)	25.6	(12.3)	23.5	(11.2)
Mean functional impairment score, <i>M</i> (<i>SD</i>)	7.5	(2.3)	7.2	(2.2)
At least one functional impairment item	19	27.1	15	20.8
Mean somatic complaint score, <i>M</i> (<i>SD</i>)	2.1	(1.7)	1.9	(1.6)
Mean separation anxiety score, <i>M</i> (<i>SD</i>)	14.8	(4.3)	14.4	(3.7)
Mean general anxiety score, <i>M</i> (<i>SD</i>)	12.5	(2.9)	12.5	(3.1)

Note. PTSD = Posttraumatic stress disorder. All comparisons using χ^2 or *t*-test were nonsignificant.

in such an attack. Eleven (7.8%) had symptom criteria for PTSD. About one quarter described at least one functional impairment domain and the overall majority of children endorsed at least one PTSD symptom.

Symptoms at Baseline Related to Gender, Grade Level, and Exposure

Girls had higher PTSD severity scores ($M = 27.9$, $SD = 11.0$) than boys ($M = 21.6$, $SD = 11.7$), $t(140) = 3.31$, $p < .001$. They also had higher somatic complaints scores ($M = 2.4$, $SD = 1.6$) than boys ($M = 1.6$, $SD = 1.5$), $t(140) = 2.98$, $p < .01$; and higher separation anxiety scores ($M = 16.1$, $SD = 4.3$) than boys ($M = 13.3$, $SD = 3.3$), $t(140) = 4.38$, $p < .001$. The lower-grade level (second and third grade) students had higher PTSD severity scores ($M = 26.5$, $SD = 11.6$) compared to higher-grade level (fourth to sixth grade) students ($M = 22.5$, $SD = 11.7$), $t(140) = 2.08$, $p < .05$, and more separation anxiety (lower-level grades: $M = 15.4$, $SD = 4.2$; higher-level grades: $M = 13.8$, $SD = 3.7$), $t(140) = 2.37$, $p < .05$.

Exposure severity level was not found to be associated with any baseline measures.

Treatment Effects

Table 3 shows the mean scores on each of the outcome variables at each assessment time (pretreatment vs. 2 months after the training sessions) by group (OTT vs. WL), and interaction effects (repeated measures ANOVA). The interactions were significant on all measures at $p < .001$. A 2 (Group) \times 2 (Time) \times 2 (Grade Level) repeated measure ANOVA showed greater reduction on PTSD severity, $F(1,138) = 6.21$, $p < .01$, somatic complaints, $F(1,138) = 5.27$, $p < .05$ and separation anxiety, $F(1,138) = 4.11$, $p < .05$ in the younger classes. A 2 (Group) \times 2 (Time) \times 2 (Gender) showed a larger reduction of functional problems in boys, $F(1,138) = 4.16$, $p < .05$.

Of the six children who met criteria for PTSD and were assigned to OTT, none met criteria at posttest. In compari-

son, 2 of the 5 children who met criteria for PTSD assigned to the control group, no longer reported symptoms criteria for PTSD and 2 of the 67 children who previously did not report experiencing symptoms criteria for PTSD did so after 2 months.

DISCUSSION

This study illustrates the efficacy of a universal school-based intervention geared at reducing PTSD symptoms in children exposed to ongoing terrorism. Students who received the OTT standardized program delivered by homeroom teachers reported significant reductions on all measures of PTSD symptomatology, somatic complaints, and in both generalized and separation anxiety levels compared to the control group. Additionally, none of the students in the active group showed significant symptomatic worsening, suggesting that the intervention had no detrimental effect.

In keeping with previous reports (Silverman & LaGreca, 2002), younger children exhibited more terror-related distress than their older counterparts and benefited the most from OTT interventions. This may be because the intervention included significant parental involvement and younger children are more dependent upon their parents for emotional regulation (Fivush, 1998).

Our findings also suggest that boys improved more than girls on functional impairment measures, although the effect size difference is rather small. Because boys tend to be more behaviorally oriented in expressing their distress (Nolen-Hoeksema, 1987), it is possible that the impact of the intervention manifested more significantly in this realm relatively to their female counterparts.

There is a growing recognition that schools should play a more central role in identifying traumatized children and in providing mental health services following traumatic events (Chemtob, Nakashima, & Hamada, 2002). Although there have been several studies showing the efficacy of school-based targeted interventions in reducing posttraumatic distress of children who were exposed to war, terrorism, and community violence (Ehnholt et al., 2005; Saltzman et al., 2001; Stein et al., 2003), to the best of our knowledge, this is the only study that shows the efficacy of

Table 3. Comparison of Overshadowing the Threat of Terrorism intervention group ($n = 70$) and Waiting List Control group ($n = 72$) on Outcomes Two Months after the 8-Week Trials

Measures	First Assessment		Second Assessment		Main effect for Time $F(1,140)$	Main effect for Group $F(1,140)$	Interaction Time \times Group $F(1,140)$
	M	(SD)	M	(SD)			
PTSD severity (0–68)							
OTT	25.6	(12.3)	13.9	(7.8)	112.21***	5.41*	129.33***
WL	23.5	(11.2)	23.9	10.8)			
PTSD symptoms (0–17)							
OTT	7.6	(3.9)	3.9	(3.3)	48.37***	4.97*	132.62***
WL	6.7	(3.8)	7.6	(4.1)			
Functional problems (0–16)							
OTT	8.5	(2.3)	6.8	(1.5)	31.19***	4.28*	40.59***
WL	8.2	(2.2)	8.3	(2.3)			
Somatic complaints (0–16)							
OTT	2.1	(1.7)	1.1	(1.2)	34.41***	2.45	40.44***
WL	1.9	(1.6)	2.0	(1.6)			
Separation anxiety (7–21)							
OTT	14.8	(4.3)	12.2	(3.2)	42.78***	1.46	29.24***
WL	14.3	(3.7)	14.1	(3.7)			
General anxiety (7–24)							
OTT	12.5	(2.9)	10.2	(2.5)	25.60***	7.78**	59.25***
WL	12.4	(3.1)	12.9	(3.1)			

Note. OTT = Overshadowing the Threat of Terrorism; WL = waiting list controls.

* $p < .05$. ** $p > .01$. *** $p < .001$.

a universal school-based intervention for this population. Given the fact the universal approaches are more accessible, feasible, affordable, and tend to be nonstigmatizing, this finding is important in terms of providing broad public mental health services for traumatized children of diverse social and ethnic populations who would otherwise be deprived of those services.

The practical implication of this is that it might be efficient and cost effective to adopt a two-stage approach toward dealing with terror-exposed students, namely, starting with a universal intervention followed by targeted specialized interventions for those who do not show significant improvement.

The study has a number of weaknesses. First, the rate of parental consent (46.6%) may have caused a bias in our sample. Second, there was no active placebo comparison group or comparative psychoeducational program, consequently, we cannot determine whether the impact was

intervention-specific. Third, because the long-term impact of the intervention was not assessed, we could not evaluate whether the short-term impact was maintained over time and whether the skills were useful for coping with future terrorist threats. Conversely, this study has significant strengths including a quasi-randomized design within a naturalistic setting, the use of a structured program (Teacher's manual; Berger et al., 2003), with a fidelity check for the intervention, the use of clearly defined target outcomes, and a comprehensive reliable and valid assessment battery. It is also noteworthy that the improvement in students' symptoms and functional impairment scores were statistically as well as clinically significant.

Future studies should assess the long-term impact of OTT as well as examine the impact of the program on students' academic performance, classroom behavior, health status, and behavior at home. Because during the application of the intervention we received several reports

from teachers that OTT was also beneficial in reducing students' distress resulting from other traumas, such as a severe illness of a classmate and a serious school bus accident, further research regarding the implementation of OTT to other traumatic situations is warranted. Additionally, studies should further investigate why younger children improved more than their counterparts and find ways to bolster the program for older children. Finally, given the low rate of parental consent more efforts should be invested in parental cooperation.

In implementing such a program within the school setting one needs to acknowledge the escalating demands on teachers and administrators to improve their students' academic performance. It is therefore essential to invest a great deal of effort in eliciting the motivation of the school and the teachers to participate in the program as well as in training and supervision.

In conclusion, our study shows that a school-based program utilizing trained and supervised homeroom teachers and implemented within the regular school curriculum can be effective in reducing posttraumatic distress as well as functional impairment in elementary school students exposed to ongoing terrorism. The fact that such an intervention can be beneficial for children who otherwise may not have been recognized as psychologically impacted and who would have been unlikely to seek other mental health services indicates this program could be an important component of a public mental health approach in a society ravaged by war and terrorism.

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