Trauma/Grief-Focused Group Psychotherapy:

School-Based Post-War Intervention with Traumatized Bosnian Adolescents

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Abstract

Results of a preliminary effectiveness evaluation of one component of a school-based post-war program for war-exposed Bosnian adolescents are described. The centerpiece of the program is a manualized trauma/grief-focused group psychotherapy program for war-traumatized adolescents based on five therapeutic foci. These foci include traumatic experiences, reminders of trauma and loss, post-war stresses and adversities, bereavement and the interplay of trauma and grief, and developmental impact. Fifty five secondary school students (81% girls; age range = 15-19 years, X = 16.81) from 10 Bosnian schools participated in the evaluation. Students completed pre-and post-group self—report measures of posttraumatic stress, depression, and grief symptoms; they also completed post-treatment measures of psychosocial adaptation and group satisfaction. The evaluation yielded preliminary but promising results, including reduced psychological distress, and positive associations between distress reduction and psychosocial adaptation.

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The four-year (1992-1995) war in Bosnia and Hercegovina has had a profound and enduring impact on Bosnian children, adolescents, and their families. The war brought about a massive loss of human life (with estimates of up to 200,000 dead including 16,000 children) and destroyed or disrupted much of the country’s existing infrastructure and basic services, especially those supporting women and children (Government of Bosnia and Herzegovina, 1998). Widespread restrictions in food supplies, extended sieges of entire cities, the destruction of schools and health clinics, and the mass flights of refugees and internally displaced persons had an especially adverse impact on children and other vulnerable groups (UNICEF, 1995). Of particular concern, many Bosnian children and adolescents were directly exposed to a broad spectrum of traumatic or severely stressful war-related events and circumstances (Zivcic, 1993; Husain, 1998; Kocijan-Hercigonja & Remeta, 1996; Herceg, Melamed, & Pregrad, 1996; Goldstein, Wampler, & Wise, 1997; Kuterovac, Dyregrov, & Stuvland, 1994). For example, in a screening survey of over 1,500 war-exposed Bosnian adolescents selected from 10 secondary schools located throughout Bosnia in 1997, 9.8% of students reported that a nuclear family member had been killed, 38% reported that a close friend had been killed, 44% reported being forced to leave their villages or towns as a result of the war, and 41% reported having been exposed to at least one life-threatening situation during the war (Djapo et al., 2000; Kutlac et al., 2000).

These war-related events also set the stage for a stressful and protracted post-war period. Hundreds of thousands of Bosnian children and adolescents continue to live as internally displaced persons, or now live as returnees from a foreign country; many more experience
problems associated with widespread poverty and unemployment, inadequate living conditions, inadequate schools, and disruptions within their families and communities (apo et al., 2000).

The psychosocial effects of war and its aftermath on children and adolescents have been documented in a variety of geographic regions and cultural settings including in the former Yugoslavia during and after the war (e.g., Goldstein et al., 1997; Kuterovac et al., 1994) and in refugees from the former Yugoslavia (e.g., Weine et al., 1995). Collectively, these studies document that children and adolescents living in war zones are often directly and indirectly exposed to high-magnitude war-related trauma, and that levels of war-related exposure to trauma and extreme adversity are associated with an increased risk for posttraumatic stress disorder (prevalence rates ranging from 8.3 to 75 percent), depression, complicated grief reactions, academic difficulties, somatic complaints, disturbances in family and peer relationships, substance abuse, and a variety of other adverse outcomes (for recent reviews see American Academy of Child and Adolescent Psychiatry, 1998; Saigh et al., 2000; Saigh, Fairbank, & Yasik, 1998; cf. Summerfield, 1999, for a dissenting view). Moreover, local clinicians working with war-exposed Bosnian adolescents report increased problems with school dropout, poor academic performance, lack of preparation for future professional and family life, alcohol and drug abuse, and lack of confidence in social institutions (Pa{agi}, 2000). Notably, in addition to these distress symptoms, a limited number of positive outcomes have been reported in some war-exposed child and adolescent populations, including increased planful behavior and pro-social behavior (Macksoud & Aber, 1996).

In recognition of the risks that war imposes for severe and persisting psychosocial distress and developmental disruption in children and adolescents, a wide variety of psychosocial
interventions has been developed to support children and youths growing up under war conditions (e.g., Dubrow, Liwski, Palacios, & Gardinier, 1996). For example, a survey conducted by Agger and her colleagues (1995) documented some 65 organizations in Bosnia and Hercegovina that offered mental health services to children and adolescents during 1992-1995.

Notwithstanding this wide proliferation of mental health programs and services, there is an unfortunate scarcity of empirically tested war-time and post-war psychosocial interventions designed to promote positive adaptation within these difficult developmental contexts. Notably, in a definitive recent review of empirically tested trauma treatments, Cohen, Berliner, and March (2000) did not identify one published treatment efficacy study targeting war-traumatized children and adolescents (see also American Academy of Child and Adolescent Psychiatry, 1998). This scarcity has contributed to a general call for empirical efficacy and effectiveness studies that include clearly defined target symptoms; reliable and valid measures; manualized and target-specific treatment protocols; controls for treatment adherence; unbiased assignment to treatment; and tests for potential mediators, moderators, and putative therapeutic mechanisms (Cohen et al., 2000; Foa, Keane, & Friedman, 2000; Foy et al., 2000).

Theoretical Underpinnings

In an effort to address these concerns, Pynoos and his colleagues (1995) have advanced a developmental psychopathology model of trauma and posttraumatic adjustment in trauma-exposed children and adolescents. This model is consistent with other ecologically- and developmentally-based formulations of the determinants of the nature and course of posttraumatic adjustment in youths (e.g., Garbarino & Kostelny, 1996; Vernberg & Varela, 2001). Collectively, these models posit that the course of posttraumatic adjustment in children and adolescents is influenced by numerous psychological and socio-environmental risk and
protective factors embedded within the pre-trauma, peri-trauma, and post-trauma ecologies, and propose that intervention efforts must systematically target these factors. Drawing on this literature, Pynoos and his colleagues (Goenjian et al., 1997; Pynoos, Goenjian, & Steinberg, 1998; Pynoos & Nader, 1988; Pynoos, Steinberg, & Piacenti, 1999) propose that intervention programs targeting trauma-exposed children and adolescents should address five therapeutic foci. Table 1 presents these five foci and the therapeutic strategies used to effect change in targeted outcomes. These strategies involve three types of therapeutic activities, including psychoeducational presentations, skills-building exercises, and process-oriented activities.

The initial therapeutic focus is upon traumatic experiences and involves the assessment and therapeutic processing of traumatic events. Intervention tasks consist of psychoeducation to normalize and validate posttraumatic distress reactions, and therapeutic exposure via trauma narrative construction to reduce reactivity and psychic numbing and to increase tolerance to trauma-related material. Special attention is given to identifying and processing the worst traumatic moments in order to increase tolerance and to enhance regulation of intense negative emotions. Further, cognitive restructuring techniques facilitate the clarification of distortions and misattributions that lead to intense emotional distress, and help to establish a frame of personal meaning that places the trauma in perspective and increases perceptions of realistic control and life continuity.

A second therapeutic focus is on trauma and loss reminders and involves efforts to normalize, validate, and promote effective coping with distressing reminders. Intervention components include identifying the nature and frequency of reminders of trauma and loss, linking reminders with distress symptoms, and identifying maladaptive coping responses. Additional tasks include using reminders to explore the personal meaning of traumatic events,
acquiring thought/emotional regulation and support-seeking skills to cope with reminders, and facilitating pro-active modification of the physical environment to remove unnecessary non-therapeutic reminders.

A third focus is on post-war stresses and adversities and involves identifying and ameliorating the effects of difficulties generated or exacerbated by traumatic events. Intervention components include identifying post-war difficulties in seven major areas, including school performance, peer relationships, family relationships, living conditions, health problems, economic prospects, and neighborhood/community environment. Additional interventions include facilitation of acceptance and adaptation to life changes and losses, training in effective problem-solving and thought/emotional regulation to increase adaptive coping, and training in communication skills to enhance appropriate support-seeking. As appropriate, direct intervention is carried out at the family, community, and/or national levels to reduce or remove unnecessary adversities.

An additional therapeutic focus, bereavement and the interplay of trauma and grief, is directed toward reducing the risk for complicated bereavement posed by traumatic death and loss. In particular, intrusive distressing traumatic images, emotional numbing, and cognitive/behavioral avoidance associated with traumatic death may interfere with normal grief reactions, including reminiscing and establishing a memory-based psychological relationship with the deceased (Pynoos, 1992; Rando, 1993). Intervention tasks include identifying grief reactions and providing psychoeducation about the individual nature of the course of bereavement, increasing tolerance for loss reminders, and identifying and reducing barriers to adaptive grieving. Additional tasks are reconstituting a non-traumatic mental image of the deceased/lost object to facilitate reminiscing, processing conflicted feelings relating to the
deceased, acquiring social skills needed to communicate appropriately about the loss, and re-negotiating one’s relationship with the deceased to reflect one’s current developmental level.

The last therapeutic focus is on resuming developmental progression and seeks to ameliorate the adverse developmental impact that trauma may induce. Intervention includes identifying missed developmental opportunities and difficulties with functioning in major areas of adolescent development, including independence from parents, the capacity for intimate relationships, moral development, ambition and motivation for educational and occupational achievement, and citizenship (Layne, Pynoos, & Cardenas, 2001; Pynoos et al., 1995). Additional tasks include initiating developmental progression in adversely affected life domains, identifying and replacing maladaptive basic beliefs with more adaptive core beliefs, and promoting pro-social efforts to create a more favorable recovery environment in the peer group, home, school community, and neighborhood.

This paper presents the results of an effectiveness evaluation of a school-based trauma/grief-focused group psychotherapy program that is based on the five therapeutic foci described above. The program is currently implemented at selected secondary schools throughout Bosnia and Hercegovina and is designed to therapeutically treat adolescents with histories of severe trauma exposure who are at risk for chronic and severe distress reactions and associated developmental disturbance (Pynoos et al., 1998). We first provide a brief historical overview of the program. We next provide an overview of the trauma/grief-focused group treatment protocol, and follow with a description of the results of a program effectiveness evaluation conducted during the 1999-2000 school year. We conclude with a discussion of the implications of our findings for future research and intervention efforts.

Brief History of the Program
In 1996, UNICEF contracted the UCLA Trauma Psychiatry Team (hereafter referred to as the Team) to consult with Bosnian government agencies in designing and implementing a school-based program to promote post-war adaptation in war-exposed youths. After conducting a 7-week on-site needs assessment in mid 1996, the Team developed an intervention program consisting of psychoeducational presentations, a risk-screening survey, a screening interview, and a manualized trauma/grief-focused group therapy protocol. The Team proposed that the program should be implemented by trained school counselors under the supervision of trained local community mental health professionals. The program was designed to be implemented within local secondary schools by trained and regularly supervised school counselors, consistent with UNICEF best-practice recommendations that intervention with traumatized youths take place in a stable and supportive environment by care-givers who have solid and continuing relationships with the child (Machel, 1996). Last, the Team recommended that school and regional sites should be selected based on local base rates of severely war-traumatized students, local government interest and support, and the availability of school counselors and mental health professionals to implement the program.

After implementing a pilot version of the program in spring 1997, the UNICEF School-Based Psychosocial Program for War-Exposed Adolescents was implemented in 12 secondary schools in 1997-1998, and was further expanded to 32 total secondary schools in 1998-1999. During these two academic years, the Team collaborated with the local program supervisors in conducting intermittent training seminars (e.g., 3-day seminars held in the fall, winter, and spring) and program materials; the Team and the supervisors also conducted on-site visits to participating schools to encourage local support for the program. As of spring 2001, the program has concluded its fourth full year of implementation and is in place at 26 secondary schools.
throughout Bosnia and Hercegovina. Throughout this time, the Team and its Bosnian counterparts have collaborated in revising and adapting the program to meet local needs. Three teams of trained local Bosnian mental health professionals now serve as clinical supervisors and carry out their activities in the form of regular (bi-weekly to monthly) group supervision meetings, telephone consultations, on-site visits to participating schools, and participation in the training seminars. The Team continues to support program implementation with intermittent on-site visits devoted to training, consultation, advocacy, needs assessment, program evaluation, and program revision.

**Evaluation Questions**

This study was designed to address three questions pertaining to the current state of treatment program evaluation in the field of traumatic stress, as discussed above (Cohen et al, 2000; Foa et al., 2000; Foy et al., 2000). The first two questions relate to the effectiveness of the program in reducing distress symptoms and in promoting positive adaptation: (a) Is participation in trauma/grief-focused group psychotherapy associated with reduced posttraumatic stress, complicated grief, and depressive symptoms? (b) Is symptom reduction associated with positive psychosocial adaptation in school performance, family relationships, and peer relationships? The third question addressed the relationship between perceptions of the group experience and targeted outcomes: (c) Is satisfaction with the group experience positively related to symptom reduction, and to psychosocial adjustment?

**Method**

**Participants**

Participants consisted of secondary school students who participated in trauma/grief-focused group treatment during the 1999-2000 school year. Eighty seven students from a total of
17 secondary schools throughout Bosnia and Hercegovina took part in the evaluation. The sample consisted of 73% girls and 27% boys, ranging in age from 15 to 20 years of age ($\bar{X} = 17.05, SD = 1.17$) and ranging from the first to the fourth year of secondary school.

Students were recruited for group participation using a graduated screening and interview protocol based on four selection criteria. These included reporting a history of clinically significant trauma exposure (e.g., death of a family member, witnessing death or injury), reporting moderate to severe levels of posttraumatic stress symptoms, and evidencing signs of disruption, based on the school counselors’ clinical judgment, within one or more developmentally significant domains, including family, peer, or romantic relationships; academic performance; and career preparation. Last, consistent with findings that co-morbid grief and depression may increase the risk for persisting posttraumatic stress symptoms (e.g., Nader, Pynoos, Fairbanks, & Frederick, 1990), students meeting the above criteria who also reported moderate to severe levels of grief or depressive symptoms were given preference over those with similar profiles who did not report concurrent grief or depressive symptoms.

**Trauma/Grief-Focused Group Treatment**

Trauma/grief-focused group psychotherapy (Layne, Saltzman, Savjak, & Pynoos, 1999; cf. Ayers et al., 1996; Foy, Ruzek, Glynn, Riney, & Gusman, 1997) is a manualized treatment protocol based on the five therapeutic foci discussed above. The (approximately) 20-session treatment manual is divided into four modules. Each group session consists of a check-in exercise, a review of the previous session’s activities, one or more group activities, an assigned practice exercise, and a check-out exercise. The sessions are accompanied by supporting media, including student handouts, practice exercises, and posterboard illustrations of session agendas, discussion topics, and coping skills. The sessions are semi-structured and consist of a
choreographed dialogue for two group leaders (Leader 1 and Leader 2) and structured group activities that include psychoeducation, therapeutic exposure, cognitive restructuring, stress management/relaxation skills, and practical problem-solving current life events. Because the best available empirical evidence supports the collective efficacy of these components in reducing PTSD symptomatology, they are currently considered the first line of treatment for traumatized children and adolescents (Cohen et al., 2000).

Module I is comprised of six sessions and is designed to reduce acute distress, build group cohesion, and to provide a foundation of skills for later trauma- and grief-focused therapeutic work. Initial therapeutic tasks are introductions, identifying and problem-solving barriers to participating in the group, establishing individual therapeutic goals, and psychoeducation about posttraumatic stress, depression, grief symptoms, and trauma/loss reminders. Next are skills training in breathing relaxation, thought/emotional regulation, and effective support-seeking to contend with distress symptoms. Module I concludes with the development of an individual coping plan for each group member that contains strategies for coping with the winter holidays (which are often replete with trauma and loss reminders) and with upcoming group trauma narrative work.

Module II is comprised of 8 to 10 sessions and is devoted to the therapeutic processing of traumatic experiences. Module II begins with a review of members’ coping skills and plans, and follows with the selection by each member of a focal traumatic experience for trauma narrative work. The members then participate in a therapeutic exposure exercise by recounting their traumatic experience. This exercise is repeated on two separate occasions. The first exercise is devoted to narrative construction and involves the creation of a chronological sequence of the traumatic experience. The second exercise is devoted to an identification and exploration of the
worst portions of the traumatic experience in order to increase tolerance, to clarify distortions and misattributions, and to process intense emotional reactions. Therapeutic tools include linking reminders with elements of traumatic experiences, using reminders to explore the subjective meaning of traumatic experiences, and using the group to create a safe and supportive atmosphere in which traumatic experiences can be disclosed, explored, and re-interpreted.

The goal of Module III is to facilitate adaptive grieving in response to loss. Therapeutic goals include developing a vocabulary to communicate about grief-related experiences, providing psychoeducation about grief and loss reminders, and assisting members with histories of traumatic loss to retrieve an intact, non-traumatic image with which to reminisce. Module III consists of four sessions, and begins with psychoeducation regarding grief reactions, loss reminders, and the tasks of grieving, with special emphasis on the ways in which traumatic losses may interfere with these tasks. Next, a group exercise is dedicated to processing members’ angry reactions to their losses. Following is a discussion of the need to maintain a psychological relationship with the deceased, accompanied by a visualization exercise in which members retrieve or construct a non-traumatic image of the deceased. The module concludes with a reminiscing exercise in which members share mementos of their loved ones.

Module IV consists of three sessions and is based on the goals of promoting adaptive developmental progression, facilitating constructive engagement in daily life, and setting and attaining positive life goals. The module begins with a reflection on the influence of traumatic experiences on members’ personal belief system and life goals, accompanied by an exercise in which members identify and challenge maladaptive basic life beliefs with more adaptive beliefs. Following is a problem-solving activity in which members learn to provide effective social support to others in order to enrich their personal relationships. Next, members assist each other
in forming specific goals and plans for the future, and in problem-solving ways to carry out these goals. Last, members participate in a group closure exercise, which highlights the distinction between traumatic and non-traumatic separations.

**Measures**

Program evaluation data were collected at two points during the school year. **Pre-treatment** data were taken from a classroom screening survey administered in the fall and included measures of posttraumatic stress, depression, and grief. **Post-treatment** data were collected from a self-report questionnaire, administered in May or June 2000, which contained measures of posttraumatic stress, depression, grief, psychosocial adjustment, and group satisfaction. All tests were back- and forward-translated by experienced Bosnian psychologists.

**Outcome Measures**

To simplify test-taking, measures of posttraumatic stress, grief, and depression used a standard 5-point Likert-type rating scale at both pre- and post-assessment. The scale measured the frequency with which symptoms were experienced during the past four weeks and ranged from **None of the time (0)** to **Most of the time (4)**.

The **Reaction Index-Revised** (RI-R; Pynoos, Rodriguez, Steinberg, Stuber, & Fredericks, 1999) is a 17-item self-report scale of posttraumatic stress symptoms experienced during the past month. The scale is an updated version of the widely used UCLA Reaction Index (Pynoos, Frederick, Nader, & Steinberg, 1987), and is consistent with DSM-IV PTSD criteria. The authors identify a total scale score of 35 or above as falling within the clinically distressed range. Kutla et al. (2000) reported high internal consistency (Chronbach’s Alpha = .92) and moderate to strong convergent validity (.37 - .63).

The **Grief Screening Scale** (GSS; Layne, Savjak, Steinberg, & Pynoos, 1998) is a 10-item
self-report screening inventory of grief symptoms experienced during the past four weeks. The GSS is a revised version of the UCLA Grief Inventory (Pynoos, Nader, Frederick, & Gonda, 1987), and is comprised of two factor-analytically derived subscales tapping normal grief and complicated grief. Only the complicated grief subscale score was used in this study (n = 5 items). Layne, Wood, Steinberg, and Pynoos (1999) reported good internal consistency (Chronbach’s Alpha = .86) and moderate to good convergent validity (.38 to .66).

The Depression Self-Rating Scale (DSRS; Birleson, 1981) is an 18-item self-report inventory of depressive symptoms in children and adolescents, and is widely used by UNICEF in the Balkan region. The scale was modified to increase clinical sensitivity and to maintain consistency in scaling and time frame by utilizing the same 5-point frequency rating scale as the other measures in the battery. Using this version of the instrument, Kutla et al. (2000) reported high internal consistency (Chronbach’s Alpha = .91) and moderate to good convergent validity (.40 to .72).

Functioning and Satisfaction Measures

The Child Self-Rating Scale (CSRS; Hightower et al., 1987) is a widely used 40-item self-report inventory of socio-emotional adjustment in children and adolescents. The scale consists of four factor analytically derived subscales: rule compliance/acting out, anxiety/withdrawal, friend/peer relationships, and school interest. Items are measured on a 4-point frequency scale ranging from 0 (“Almost Never”) to 3 (“Almost Always”). Layne et al. (2001) reported satisfactory internal consistencies (range = .72 to .78 across subscales).

The Self-Satisfaction Survey (SSS; Kochendorfer, 1974) is a 10-item self-report survey of general satisfaction with a group-related experience shown to be sensitive to clinical change in adolescent groups (Hoag, Primus, Taylor, & Burlingame, 1996). Items are measured on a 5-
point rating scale ranging from strongly disagree (1) to strongly agree (5). Scale items are both positively and negatively worded to control for response bias. Higher scores indicate higher levels of satisfaction with the group. The SSS had a Chronbach’s Alpha of .75 in this study.

**Procedure and Analysis**

In fall 1999, trained school counselors selected classrooms within their schools that, based on school records and their professional knowledge, contained a high concentration of war-exposed students. Following an introductory presentation to the selected classrooms, the counselors administered a screening survey containing a measure of war trauma exposure (Layne, Stuvland, Saltzman, Steinberg, & Pynoos, 1999), the RI-R, the DSRS, and the GSS. Based on local clinical knowledge, scores above 30 on the RI-R and DSRS, and above 10 on the complicated grief subscale of the GSS were considered to fall within the clinically distressed range. Students who met criteria were then offered admission to the group during a screening interview. After final selection of the group members, the counselors held a pre-group interview with each member to prepare for group work (see Layne et al., 2001). The counselors then implemented the trauma/grief-focused group psychotherapy protocol (Layne et al., 1999) on the school grounds before, during, or after school as members’ schedules allowed, with sessions lasting 80 to 100 minutes. Fidelity to treatment implementation was monitored via group supervision meetings. These meetings were held regionally by the group supervisors every two weeks, with additional weekly or individual supervision held according to the supervisors’ judgment of the level of need for monitoring and support.

Notably, not all schools implemented the full four-module group treatment program. Rather, due to uncontrollable logistical problems that delayed the formal commencement of the program from September to November 1999, nine participating schools completed a portion of
the program (Modules I and II only), and six participating schools completed the full program (Modules I-IV). Although unplanned, lacking in random assignment to condition and to treatment provider, and confounded in its unequal duration of treatment, this feature made it possible to explore the program’s effectiveness across full versus partial modes of program implementation. Thus, analyses focusing on between-group differences provide a preliminary and rough opportunity to “unpackage” the program into its component parts. These parts consist of the full program (Modules I-IV; n = 5 schools and 28 students), versus psychoeducation and skills-building (Module I) plus trauma processing (Module II; n = 5 schools and 27 students).

Because group membership (full versus partial treatment) did not involve random assignment, pre-existing differences between the groups were of special significance. Independent group t-tests of pre-treatment levels of posttraumatic stress symptoms (RI-R), depressive symptoms (DSRS), and complicated grief symptoms (GSS) were conducted. No between-group differences were found on any of the four measures (all p’s > .05).

Four 2 (full vs. partial group treatment) x 2 (pre- vs. post-treatment) mixed group analyses of variance (ANOVAs) were calculated. In each analysis, full versus partial group treatment (hereafter referred to as group) served as a between-subjects fixed factor, and pre-versus post-treatment (hereafter referred to as time) served as a within-subjects factor. Dependent variables were posttraumatic stress symptoms, depressive symptoms, normal grief symptoms, and complicated grief symptoms. Evaluation of the assumptions of normality of sampling distributions, pairwise linearity, and homogeneity of variance were satisfactory.

Results

Targeted Symptoms and Reliable Change Proportions

The question, “Is participation in trauma/grief-focused group psychotherapy associated
with reduced posttraumatic stress, complicated grief, and depressive symptoms?” was first addressed. Analysis of time (pre- vs. post) and group condition (full vs. partial) effects on posttraumatic stress symptoms, grief symptoms, and depression symptoms revealed no Time X Group interactions \( F \text{'s were } F(1, 53) = 1.27, p > .05; \ F(1, 35) = .17, p > .05, \text{ and } F(1, 52) = .15, p > .05, \text{ respectively} \). Analysis of posttraumatic stress scores revealed a significant main effect for time, indicating a reduction in distress scores \( F(1, 53) = 56.97; p < .001 \). Table 2 presents the means and standard deviations for the three targeted outcome variables. The relationship between time and posttraumatic stress symptom scores for the combined groups was comparatively strong, partial \( \eta^2 = .52 \). No significant main effect for group was found, \( F(1, 53) = 1.02; p > .05; \text{ partial } \eta^2 = .02 \).

The effect of time and group on complicated grief symptoms for students reporting the death of a loved one revealed a significant main effect for time, indicating a reduction in grief scores \( F(1, 35) = 22.90; p < .001 \). The relationship between time and grief was moderately strong for the combined groups, partial \( \eta^2 = .40 \). No significant main effect for group condition was found, \( F(1, 35) = 1.21; p > .05; \text{ partial } \eta^2 = .03 \). Last, a significant main effect for time indicated a significant reduction in depressive scores \( F(1, 52) = 33.00; p < .001 \). The relationship between time and depressive symptom scores for the combined groups was moderately strong, partial \( \eta^2 = .39 \). No significant main effect for group was found, \( F(1, 52) = 2.70; p > .05; \text{ partial } \eta^2 = .05 \).

We also calculated Reliable Change Index scores (RCI; Tingey, Lambert, Burlingame, & Hansen, 1996) for posttraumatic stress, complicated grief, and depression symptoms. A Chi Square test revealed no significant between-group difference on any outcome measure in the proportions of students showing reliable gains, deterioration, or no reliable change (all \( p \text{'s} > .05 \)).
After combining groups, 49% of students showed reliable improvement from pre- to posttest in posttraumatic stress scores, 51.4% showed reliable improvement in grief scores, and 35.2% showed reliable improvement in depressive scores. Notably, one (1.8%) student showed a reliable increase in posttraumatic stress scores, three (8.1%) showed a reliable increase in complicated grief scores, and two (3.7%) showed a reliable increase in depression scores. There was no reliable pre- to posttest change in posttraumatic stress scores for 49% of students, in grief scores for 40.5% of students, and in depressive scores for 61% of students. In general, these findings are somewhat lower than reliable improvement rates observed in the general psychotherapy outcome literature with mixed treatment populations and treatment modalities, which rates range from 57.6% to 67.2% depending on the method of calculation (Hansen, Lambert, & Forman, in press).

**Functioning and Satisfaction**

The question, “Is symptom reduction associated with positive psychosocial adaptation in school performance, family relationships, and peer relationships?” was examined using change scores (pre-group minus post-group) for posttraumatic stress, depression, and grief symptoms. Correlations between these change scores and the Child Self Rating Scale (CSRS) revealed that reduction in post-traumatic stress is positively correlated with classroom rule compliance ($r = .36, p < .01$) negatively correlated with school anxiety/withdrawal ($r = -.31, p < .03$), positively correlated with positive peer relationships ($r = .32, p < .02$) and positively correlated with school interest ($r = .34, p < .02$). Further, reduction in symptoms of depression is positively correlated with rule compliance ($r = .27, p < .05$), negatively correlated with school anxiety/withdrawal ($r = -.48, p < .001$), and positively correlated with school interest ($r = .38, p < .01$). Grief symptom change scores were not significantly correlated with any CSRS subscale.
Last, the question, “Is satisfaction with the group experience positively related to symptom reduction, and to psychosocial adjustment?” was addressed using correlations between satisfaction with the group experience (measured by the SSS) and general psychosocial adjustment (measured by the CSRS). Notably, satisfaction with the group experience was not significantly correlated with the change score of any distress measure (all $p$’s > .05). However, group satisfaction was positively associated with classroom rule compliance ($r = .38, p < .01$), with positive peer relationships ($r = .36, p < .01$), and with school interest ($r = .28, p < .03$).

Discussion

Participation in trauma/grief-focused group psychotherapy was associated with significant reductions in posttraumatic stress, depression, and grief symptoms between pre- and post-treatment. Additionally, approximately 50% of the students showed reliable improvements in the primary outcome measures of posttraumatic stress and grief symptoms, and 35% showed reliable improvement in depressive symptoms. Notably, no significant effects for group membership (full vs. partial treatment) were found for any of the distress measures.

Of greater clinical interest, reductions in distress symptoms were associated with higher levels of psychosocial adaptation. In particular, reductions in posttraumatic stress scores were positively correlated with classroom rule compliance and school interest, and negatively correlated with school anxiety/withdrawal. Moreover, reductions in depression scores were positively correlated with classroom rule compliance and school interest, and negatively correlated with school anxiety/withdrawal. Last, group satisfaction was not correlated with any change score, but was positively correlated with classroom rule compliance, positive peer relationships, and school interest. Before discussing the implications of these findings, significant methodological weaknesses in the design and implementation of the evaluation must
be acknowledged, which place significant restrictions on any definitive conclusions.

Study Limitations and Strengths

This paper reports the results of an effectiveness evaluation of a group psychotherapy program implemented with war-traumatized adolescents by Bosnian school counselors. This “real world” setting, with its lack of strict methodological controls to safeguard internal validity, cannot rule out as competing explanations the effects of maturation, regression to the mean, selection, and history (see Foa & Meadows, 1997; Foa et al., 2000). These methodological limitations include: (a) Due to logistical problems, the groups were started at different points throughout the school year, leading to complications with supervision, training, monitoring of implementation, and evaluation activities. (b) Less than one half of all the schools completed the full treatment protocol. Specifically, only the “early starting” schools (n = 6) completed the entire group treatment program by the end of the school year; the late-starting schools (n = 9) completed only Modules I and IV of the protocol. (c) The study did not utilize a wait-list control group or random assignment to treatment providers. (d) Only self-report instruments were used. (e) The evaluation relied on a small battery of targeted outcome measures. This battery is not likely to have fully captured the range of psychosocial outcomes produced by the program, and will contribute only minimally to the identification of mechanisms leading to those outcomes. (f) Only pre-treatment and post-treatment outcome measures were used, and thus the study did not capture the trajectory of change in targeted outcomes over the course of treatment, and (g) the comparison group (partial program recipients) participated in treatment of a shorter duration than the full-program participants.

Conversely, this study possesses several noteworthy strengths. These include the use of clearly defined target outcomes; reliable and valid measures; use of a manualized, replicable, and
specific trauma/grief-focused treatment protocol; and regular monitoring of treatment adherence by trained local mental health professionals. Collectively, these features meet at least three of Foa et al.’s (2000) seven criteria for well-controlled treatment studies. Additional strengths include implementation within local schools, which increases the ecological validity of the findings (see Seligman, 1995); the use of heterogeneous “real world” groups of war-exposed students, school counselors, and community mental health professionals, which increases the generalizability of the findings; and a specific focus on adolescents—designated as a high-priority population by UNICEF (Machel, 1996). A further strength includes implementation in an international setting—settings which, generally speaking, are underrepresented in the trauma intervention literature (Pasagic, 2000). Last, the study observed reliable decreases in distress symptoms in severely war-traumatized adolescents reporting severe and persisting posttraumatic stress, grief, and depressive reactions five years after the war, many of whom continue to live under adverse circumstances including living without a parent, displacement, ongoing separations from loved ones, and poverty (Djapo et al., 2000).

Taken together, these findings provide a degree of promising, but very preliminary, support for the effectiveness of trauma/grief-focused group therapy in reducing distress and promoting psychosocial adjustment in war-traumatized youths. Although it is possible that decreases in distress scores are attributable to regression to the mean, maturation, history, or selection, we suggest that the positive correlations observed between pre-post change scores and psychosocial functioning indicate that the changes observed may be clinically meaningful. Clearly, a more sophisticated and methodologically sound evaluation is needed before more definitive conclusions can be drawn. Further, the effectiveness of a post-war program cannot be evaluated independent of the social, economic, and political contexts in which it is implemented.
In particular, given the widespread extent of traumatic exposures and severe stresses imposed by war and the scarcity of available human and material resources, one should not only ask, “does this program work, and if so how?” but “is this the best program for this population at this point in time, given the resources available?”

As noted by Foa and her colleagues (2000), the study of treatment effectiveness/efficacy for posttraumatic stress disorder is still in its initial stages, particularly with regard to the treatment of traumatized children and adolescents. Indeed, a recent review (Cohen et al., 2000) identified no methodologically sound published treatment studies with war-traumatized children or adolescents. An evolutionary blueprint for developing trauma treatment protocols with demonstrated effectiveness and efficacy was recently proposed by Schnurr and Rothbaum (2001). Their evolutionary timeline begins with uncontrolled studies of manualized treatments that successfully demonstrate significant changes in targeted outcomes. Treatment studies then evolve successively into randomized trials utilizing wait-list controls, randomized trials utilizing non-specific comparison groups, and culminate in “dismantling” and comparison studies focused on identifying therapeutic mechanisms and optimal treatment protocols for specific populations.

We suggest that this study constitutes a first step in this evolution, and we plan to contribute further to the evolving knowledge base by conducting a more rigorous effectiveness evaluation of trauma/grief-focused group psychotherapy during the 2000-2001 school year. The study underway involves random assignment to treatment versus wait list control groups, multiple informants, and repeated measures. The study will also examine the role of group processes as potential therapeutic mechanisms, and will seek to identify predictors of treatment response (see Foy et al., 2000). In addition, the study will also address important questions concerning resource inputs, program effectiveness, impacts, sustainability, breadth of coverage,
cost efficiency, and the costs and benefits associated with different program alternatives. We hope that the results of these studies will contribute to the creation of more effective theory- and empirically-based interventions for these highly stressed and underserved populations.
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Weine, S. M., Becker, D. F., McGlashan, T. H., Laub, D., Lazrove, S., Vojvoda, D., &

Footnote

¹Two measures of group process were also administered at post-treatment, results of which will be presented in an upcoming study. These are the **Group Climate Questionnaire** (MacKenzie, 1983), a 12-item self-report inventory of the degree to which specific processes are judged to be present in the current group session, and the **Curative Climate Inventory** (Fuhriman, Drescher, Hanson, Henrie, & Rybicki, 1986), a 14-item self-report inventory of the degree to which specific group processes are judged to be helpful.
Table 1: Therapeutic Foci, Therapeutic Interventions, and Targeted Outcomes

<table>
<thead>
<tr>
<th>Therapeutic Focus</th>
<th>Primary Therapeutic Goals</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Traumatic experiences</td>
<td>• Normalize and validate posttraumatic stress reactions; enhance coping skills</td>
<td>Reductions in:</td>
</tr>
<tr>
<td></td>
<td>• Construct trauma narrative; clarify distortions, process negative emotions</td>
<td>• posttraumatic stress symptoms</td>
</tr>
<tr>
<td></td>
<td>• Identify and process worst traumatic moments and associated intense emotions</td>
<td>• depression symptoms</td>
</tr>
<tr>
<td>2. Reminders of trauma and loss</td>
<td>• Assess type and frequency of trauma and loss reminders and associated reactivity</td>
<td>• complicated grief symptoms</td>
</tr>
<tr>
<td></td>
<td>• Enhance coping, build tolerance for expectable reactivity to trauma reminders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Link, discriminate between traumatic experiences and trauma reminders</td>
<td></td>
</tr>
<tr>
<td>3. Posttraumatic adversities</td>
<td>• Identify adversities in school, peer/family relationships, living conditions, health, etc.</td>
<td>• positive psychosocial adjustment</td>
</tr>
<tr>
<td></td>
<td>• Promote problem-solving/coping abilities, including acceptance and adaptation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increase social skills for appropriate support-seeking regarding traumatic experiences</td>
<td></td>
</tr>
<tr>
<td>4. Interplay between trauma and grief</td>
<td>• Normalize and validate grief reactions; enhance coping and support-seeking skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reconstitute a non-traumatic image to facilitate reminiscing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Enhance coping, build tolerance for expectable reactivity to loss reminders</td>
<td></td>
</tr>
<tr>
<td>5. Resuming developmental progression</td>
<td>• Identify missed developmental opportunities, assess functional impairments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Initiate personal goal-directed efforts in compromised life domains</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Promote pro-social efforts to create a more favorable recovery environment</td>
<td></td>
</tr>
</tbody>
</table>
Table 2

Means and Standard Deviations for Outcome Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pretest</td>
<td></td>
<td>Posttest</td>
<td></td>
</tr>
<tr>
<td>RI-R</td>
<td>Full Treatment</td>
<td>28</td>
<td>38.34</td>
<td>9.59</td>
<td>26.00***</td>
<td>10.89</td>
</tr>
<tr>
<td></td>
<td>Partial Treatment</td>
<td>27</td>
<td>34.57</td>
<td>6.51</td>
<td>25.44***</td>
<td>10.52</td>
</tr>
<tr>
<td></td>
<td>Combined</td>
<td>55</td>
<td>36.49</td>
<td>8.37</td>
<td>25.73***</td>
<td>10.62</td>
</tr>
<tr>
<td>GSS</td>
<td>Full Treatment</td>
<td>21</td>
<td>12.81</td>
<td>4.49</td>
<td>8.14***</td>
<td>3.79</td>
</tr>
<tr>
<td></td>
<td>Partial Treatment</td>
<td>16</td>
<td>11.11</td>
<td>4.87</td>
<td>7.19*</td>
<td>5.10</td>
</tr>
<tr>
<td></td>
<td>Combined</td>
<td>37</td>
<td>12.07</td>
<td>4.67</td>
<td>7.73***</td>
<td>4.36</td>
</tr>
<tr>
<td>DSRS</td>
<td>Full Treatment</td>
<td>28</td>
<td>32.87</td>
<td>8.63</td>
<td>24.68***</td>
<td>12.16</td>
</tr>
<tr>
<td></td>
<td>Partial Treatment</td>
<td>26</td>
<td>28.54</td>
<td>8.48</td>
<td>21.38***</td>
<td>9.55</td>
</tr>
<tr>
<td></td>
<td>Combined</td>
<td>54</td>
<td>30.79</td>
<td>8.76</td>
<td>23.09***</td>
<td>11.01</td>
</tr>
</tbody>
</table>

Note. RI-R = Reaction Index-Revised; DSRS = Depression Self-Rating Scale; GSS = Grief Screening Scale (complicated grief subscale score)

* p < .05; ** p < .01; *** p < .001