Effects of a Writing Intervention for Palestinian Adolescents Victims of Political Violence in Gaza Strip

Thabet AA and Panos Vostanis

Abstract

Aim
The aim of this study was to investigate the efficacy of expressive writing as a therapy for children affected by war and trauma in the Gaza Strip.

Method
The participants were recruited from four schools in Gaza City, a group 28 girls and 25 boys were chosen for the intervention group. Out of 28 girls in the first assessment, 27 girls completed the post assessment scales, while 18 boys from 25 completed the scales. Each group were involved in three days (6 sessions) writing for recovery intervention. Pretest was conducted using the following scales: Gaza Traumatic Events Checklist for Israelis violence, Gaza Traumatic Events Checklist for factional fighting, Impact of Events Scale-8 items version, Child Depression Inventory, and Revised Children's Manifest Anxiety Scale. The same instruments were applied after the finishing of the 3 days of intervention.

Results
In the first assessment, mean traumatic events by Israelis was 9.2 and 4.5 due to factional fighting. At the second assessment the mean traumatic events reported by children due to due Israelis dropped to 8.72 and increased for factional fighting trauma to 4.63. No significant difference between the two times.

Mean IES in the first assessment was 17.01 (SD= 5.90) and it was increased to 20.64 (SD =4.22) after the expressive writing therapy.

Mean depression reported by children in the first assessment was 13.44 which increase to 13.79. This increasing was not statistically significant.

Mean anxiety assessed before the therapy was 10.86 and after the therapy mean was 10.04. The results showed that there was statistically significant differences in anxiety toward decreasing anxiety after the therapy (t = 2.28, p = 0.02).

Conclusion and Implications
In this study, expressive writing therapy as an intervention did not influenced much Palestinian adolescents' PTSD, depression symptoms even symptoms increased or did not change, but anxiety symptoms decreases. These results compared with results of other trial studies of using other types of therapy are not promising. This could be due to the unique situation of Palestinian adolescents who grow up in area of continuous violence, trauma, poverty, and abuse. So, follow up of the same adolescents should be conducted after few months to find out about the effect of such intervention. Also, more trial studies comparing this type of therapy with other types of therapy should be carried out in safer place which is impossible in Gaza Strip.

Keyword: Adolescents Anxiety; Depression; Palestinians; PTSD; Writing Therapy

Introduction
Interventions with Traumatized Children
There are very few randomized controlled trials of any therapy with children, let alone therapies specifically for PTSD. Early intervention is attractive if it could be shown that it prevented later development of PTSD or other disorders but, as with adult studies, there have been few published properly controlled trials of any early intervention. Many of these programs have been defined as variations of ‘debriefing’ (critical incident stress or psychological) and ‘trauma/grief-focused’ therapy, although these terms have been used for different types of interventions [1]. In all early intervention the first and foremost principle is to ensure that the child feels safe and secure, while secondly making sure that he or she is provided with information and clarification about what happened and the state of family members and friends. However, a number of studies have described or evaluated different models of interventions for PTSD among children who had suffered abuse, experienced natural disasters, or exposed to community violence. These predominantly adopt psychodynamic or cognitive therapeutic frameworks,

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and a variety of techniques, with the broad aim of enabling the child to make links between trauma, emotions and beliefs, which can subsequently be challenged and modified. These have been designed for the classroom, the family, the individual child, or a group of children exposed to similar events [2].

Debriefing interventions have not been as well evaluated with children as with adult victims of trauma. Trauma and grief-focused school-based program, consisting of four group and two individual sessions, following an earthquake in Armenia, led to improvement in PTSD but not depressive symptoms [3]. A ten-session group therapy model for adolescent survivors of homicide set up goals of providing grief education, facilitating thoughts and feelings about grief, and reducing traumatic symptoms [4]. The Critical Incident Stress Debriefing (CISD) is a structured group program, which has been widely used in disaster counseling, predominantly with adults, with positive findings [5]. Similarly, in a study to evaluate the short-term impact of a group crisis intervention for children aged 9-15 years from five refugee camps in the Gaza Strip during ongoing war conflict. Children were allocated to group intervention (N=47) encouraging expression of experiences and emotions through story telling, drawing, free play and role-play; education about symptoms (N=22); or no intervention (N=42). Children completed the CPTSD-RI the CDI pre- and post-intervention. No significant impact of the group intervention was established on children's posttraumatic or depressive symptoms. Possible explanations of the findings are discussed, including the continuing exposure to trauma and the non-active nature of the intervention [6].

**Writing for Recovery**

Pennebaker first explored the impact of the writing task on health in college students. Visits to the health center for a group of students were monitored for three months prior to the writing task and for three months afterward. Pennebaker discovered the students who wrote about their most traumatic event significantly reduced the number of visits to the health center after writing than those who wrote about a neutral topic [7]. To evaluate why the number of medical visits decreased, a follow-up study evaluated how the immune system responded to the writing task. After completing the writing task, students had their blood drawn to evaluate the response of the immune systems to the introduction of foreign agents. The students who wrote about a traumatic event had an increased number of t-helper lymphocytes following exposure than those who wrote about a neutral topic—a result suggestive of an improved immune-system response [8]. One recent line of inquiry has examined if focused expressive writing may help individuals process negative emotions related to stressful and/or traumatic experiences. Furthermore, this line of research has examined if such intervention can improve health and well-being for individuals not in psychotherapy [9]. This intervention involves asking participants to write about their deepest thoughts and feelings regarding the most stressful or traumatic event of their entire life. Typically, participants are brought into a research setting for several (typically three to five) sessions, usually on consecutive days. In these sessions, participants are asked to write about their assigned topic continuously for 20 to 30 min without regard to spelling or grammar. The writing task appears to be beneficial for many aspects of life, and its benefits appear to cross cultures, languages, education, and socioeconomic status. Others have developed their narrative exposure therapy technique (NET) and used it in a Rehabilitation Center for Torture with adult refugees in the Sudan. The treated group made significant improvements [10]. A recent addition to the methods for treating traumatic stress reactions is a variant on narrative therapy. This has its roots in part in South American work on helping survivors of torture record their stories and so stand testimony to the state violence they had endured, and in part in developments within CBT where clients are helped to write a fuller account of their experiences, concentrating on the subjective feelings. While this is seen as part of completing otherwise fragmented memories, the technique is emerging as a powerful one in its own right [11,12] has long demonstrated that writing about emotional events can have very positive effects. To our knowledge, one effect study on expressive writing among adolescents in war-torn areas have been published, in a study evaluated the effect of a short-term group intervention entitled Writing for Recovery in Gaza. Adolescents (N=139) aged 12–17 were randomly assigned to an intervention or to a waiting list group. Levels of distress were assessed at baseline and at posttest. A follow-up assessment was conducted 5 months after both groups had received the intervention. Results at posttest showed a reduction in posttraumatic stress symptoms in both groups, an increase in depression in the intervention group, and no change in anxiety symptoms. At follow-up, a significant decline in depression scores was evident. Overall, no evidence for improvements due to the intervention was found [13]. The aims of the present study were to investigate the short-term effect of the intervention writing for Recovery among adolescents living in the war-torn Gaza Strip where the political conflict is still present. Also, we aimed to explore whether potential changes in symptoms persisted over time. Harmful effects of writing, the intervention could be implemented as a school-based one, independent of symptom burden, in order to avoid stigmatization. Our hypothesis was that the writing intervention would predict generate an initial elevation of distress, followed by a symptom reduction of PTSD, anxiety and depression.

The aim of this study was to investigate the efficacy of intervention entitled “Writing for Recovery” for children affected by war and trauma in the Gaza Strip.

**Methods**

**Sample**

The participants were recruited from four schools in Gaza City, a group 28 girls and 25 boys were chosen for the intervention group. The research team received a list of pupils in the target age group from the 4 schools, and conducted a random selection of participants. Out of 28 girls in the first assessment, 27 girls completed the post assessment scales, while 18 boys from 25 completed the scales.

**Materials**

Arabic versions of all questionnaires were administered. All measures of distress were previously applied in Arabian countries [14,15].
Instruments

Gaza Traumatic Event Checklist (GTEC) [15]
This trauma checklist was originally developed in order to assess levels of trauma exposure typical for the Palestinian population in Gaza. The present version of the GTEC consists of 28 yes/no questions relevant to the Israeli siege. The total composite score (0 - 28) gives an indication of the amount and type of war exposure the respondent has experienced during the war [15]. The internal consistency of the scale was calculated using the Cronbach's alpha and was also found to be high (α = 0.80).

Impact of Events Scale-8 items version [16, 17]
The Impact of Events Scale (IES) was originally developed by Horowitz [18] to monitor the main phenomena of re-experiencing the traumatic event and of avoidance of that event and the feelings to which it gave rise. Hence, the original 15 item, four point scales, has two subscales of intrusion and avoidance. It was not originally designed to be used with children, but it has been successfully used in a number of studies with children aged 8 years and older. However, two separate large scale studies (Yule's of 334 adolescent survivors of a shipping disaster [19], and Dyregrov's of children in Croatia) [20] found that a number of items are misinterpreted by children. These separate studies identified identical factor structures of the IES and these were used to select eight items that best reflected the underlying factor structure and so produced a shortened version – the IES-8 for children. The present version is designed for use with children aged 8 years and above who are able to read independently. It consists of 4 items measuring intrusion and 4 items measuring avoidance - hence it is called the CRIES-8. Others reviewed the use of CRIES-8 and provide validity data from two samples of children (52 attending a PTSD clinic, and 63 attending an Accident and Emergency Clinic). In both samples a cut-off score of 17 maximised sensitivity and minimised the rate of false negatives, 75-83% of children were correctly classified as having PTSD (as separately judged from the CRIES-8 score [20].

In this study the reliability of the scale using Cronbach's alpha was 0.46 and split half was 0.54.

Child Depression Inventory (CDI) [21]
The CDI is a standardised self-report questionnaire of depressive symptomatology. This has been developed for children and young people aged 6-17 years. The CDI includes 27 items, each scored on a 0-2 scale (from 'not a problem' to 'severe'), for the previous two weeks. The total score ranges between 0-54, and a score of 19 has been found to indicate the likelihood of a depressive disorder. In this study the reliability of the scale using Cronbach's alpha was 0.82 and split half was 0.84.

Revised Children's Manifest Anxiety Scale (RCMAS) [22]
The RCMAS is a standardised 37 item self-report questionnaire for children of 6-19 years of age. It measures anxiety related symptoms (yes/no answers) in 28 anxiety items and 9 lie items. A cut-off total score of 18 has been found to predict the likelihood of presence of anxiety disorder. This instrument has been used by the authors in a total population study in the Gaza Strip, where 21.5% of children scored above the cut-off score for anxiety disorders [14]. In this study, the split half reliability of the scale was high (r = 0.80). The internal consistency of the scale, calculated using Cronbach's alpha was also high (α = 0.86).

Procedure
The study was designed to have two groups' adolescents with one week between the two groups. The intervention was carried by three community mental health professionals working in the field of child mental health (one psychiatrist and two psychiatric nurses) supervised by the first author. The intervention team received training for four hours in how to use the Arabic version of manual of expressive writing therapy which was translated to Arabic by the first author. Permission was issued from Ministry of Education and school masters were very cooperative. Adolescents were selected from two schools located in Gaza City. In the first session, introduction about the study and procedure was discussed with the head teachers and later with the adolescents. The adolescents completed the pre assessment tools and they were helped in uncertain questions. A total number of 28 girls and 25 boys were chosen for the first group and they carried out six sessions of writing in every other day. Each writing session was conducted for 15 minutes with 10 minutes break. In the first session, we asked the adolescent to write about their deepest emotions and thoughts about the trauma. What they saw and felt and what they remember. Then we ask them to put their papers in a small box and had a break for 10 minutes. The second session for the first day, they were asked to explore their thoughts and feelings and write about all the ways they remember the trauma-sights, sounds, smells, memories, thoughts, and dealings. In the second day, the first session was about their family or other powerful emotions or experiences they have not told others about. Then we asked them to finish in 15 minutes and put their papers in the box again and to go for a break for 10 minutes. In returning for the second session, they were asked to write a story about what happened to them and what they did to help in surviving. Again they were asked to write about and remember about the trauma. Again when they finished, they put their papers in the box and we told them „by putting the papers with your writing in the box as you had left the bad feelings and thought off your shoulder”. In the third day, we told them that „this the last day of the project. Over the last two days, you wrote about your thoughts and feelings about a very difficult event in your life". Today, we will be focusing on other aspects of these events. We asked them to think about other persons whom have gone through a similar event, what to say that person about what helped them to overcome this trauma. They were given 15 minutes to finish writing about this and then to put the papers in the box. After 10 minutes break, we asked them to write about the imagination on being 10 years from now and they are looking back to this moment. How they will think about the event? What does it mean to them now and what do they think they will see as the most important part when he look

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Back on it in ten years time. After finishing the writing they were asked to put the papers in the box. We told him, “it may have been hard for you to write over these days you may already have learned that the writing about your experiences you have organized your story better”. You can use on your own at any time in the future. Remember to leave all these feelings and memories behind you put please keep the pencil just to remind you of the new skills you have learned. Out of 28 girls in the first assessment, 27 girls completed the post assessment scales, while 18 boys from 25 completed the scales. Due to teacher’s strikes and factional fighting at the time of the data collection, one week period between the two groups was extended to two weeks.

Analyses
Analyses were conducted using the Statistical Package for Social Sciences (SPSS) software version 20. For all measures, when missing data exceeded 25%, the person was excluded from the analysis. Descriptive statistics for the central outcome measures were calculated. In order to explore potential significant differences at baseline (T1), demographic variables as well as baseline levels of exposure, depression, anxiety and PTSD symptoms in the two groups were compared by paired t-tests. Level of significance was set to p < .05.

Results
Socio-Demographic Characteristics of the Study Sample
The study sample consisted of 92 adolescents; 30 boys which represented 32.6% and 62 girls which represented 67.4% of the sample. The adolescents age ranged from 16-18 years (mean = 15.7, SD = 0.50). Eighty one of them live in Gaza city (88%) and 11 live in Beach camp (12%). Palestinian family size is usually high; 12% of their families have 4 and more children, 53.3% have 5-7 children, and 34.8% have more than 8 children in the family. Due to the political situation in the Gaza Strip, 44.7% of family monthly income is less than 300 $ per month, 22.4% income from 301-500 $, while only 10.5% have monthly income of more than 751 $.

Types of Traumatic Experiences
In this study adolescents commonly reported the following
traumatic experiences: watching mutilated bodies in TV (85/92.4%), hearing shelling of the area by artillery (76/82.6%), hearing the sonic sounds of the jetfighters (74/80.4%), hearing the shootings and bombardment (74/80.4%).

Prevalence of Post Traumatic Stress Disorder in the First Assessment
Using previous cut-off points of IES-8, 55 of adolescents had post traumatic stress disorder (59.8%) and 37 had no post traumatic stress disorder (40.2%).

Prevalence of Anxiety in the First Assessment
Using previous cut-off points of CRMAS, 12 of adolescents had anxiety disorder (13.2%) and 79 had no anxiety (86.8%).

Prevalence of Depression in the First Assessment
Using previous cut-off points of CDI, 22 of adolescents had depression disorder (23.9%) and 70 had no depression disorder (76.1%).

Prevalence of Post Traumatic Stress Disorder in the First Assessment
Using previous cut-off points of IES-8, 80 of adolescents had post traumatic stress disorder (87%) and 11 had no post traumatic stress disorder (12.1%).

Prevalence of Anxiety in Time 2
Using previous cut-off points of CRMAS, 11 of adolescents had anxiety disorder (13.6%) and 70 had no anxiety (86.4%).

Prevalence of Depression in Time 2
Using previous cut-off points of CDI, 22 of adolescents had depression disorder (31.3%) and 48 had no depression disorder (68.6%).

Effect of Expressive Writing Intervention on Adolescents

Traumatic Experiences
Palestinian children reported a variety of traumatic events in the first assessment, mean traumatic events by Israelis was 9.2. At the second assessment the mean traumatic events reported by children due to due Israelis dropped to 8.72.

In order to investigate the differences in traumatic events between the two times, Paired t test was done. The results showed no statistically significant differences in mean of traumatic events after the therapy.

Post Traumatic Stress Reactions
In this research, 91 of children were assessed before and after the therapy, mean IES in the first assessment was 17.01 (SD= 5.90) and it was increased to 20.64 (SD =4.22) after the expressive writing therapy.

In order to investigate the differences in post traumatic reactions

<p>| Table 2: Paired T test pre-assessment and post- assessment of the entire sample (N = 92) |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|</p>
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>MD</th>
<th>t</th>
<th>p</th>
</tr>
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<tbody>
<tr>
<td>Total trauma T1</td>
<td>9.13</td>
<td>.70</td>
<td>7.82</td>
<td>10.60</td>
<td>.36</td>
<td>.81</td>
</tr>
<tr>
<td>Total trauma T2</td>
<td>8.78</td>
<td>.80</td>
<td>7.38</td>
<td>10.40</td>
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<td></td>
</tr>
<tr>
<td>Anxiety-T1</td>
<td>11.13</td>
<td>.82</td>
<td>9.36</td>
<td>12.73</td>
<td>.76</td>
<td>1.75</td>
</tr>
<tr>
<td>Anxiety-T2</td>
<td>10.38</td>
<td>.82</td>
<td>8.76</td>
<td>11.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression- T1</td>
<td>11.96</td>
<td>1.04</td>
<td>10.00</td>
<td>14.04</td>
<td>.18</td>
<td>.28</td>
</tr>
<tr>
<td>Depression- T2</td>
<td>11.78</td>
<td>1.18</td>
<td>9.56</td>
<td>14.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTSD-T1</td>
<td>17.87</td>
<td>.75</td>
<td>16.40</td>
<td>19.29</td>
<td>-3.58</td>
<td>-4.70</td>
</tr>
<tr>
<td>PTSD -T2</td>
<td>21.44</td>
<td>.59</td>
<td>20.27</td>
<td>22.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrusion T1</td>
<td>9.67</td>
<td>.57</td>
<td>8.51</td>
<td>10.80</td>
<td>-.40</td>
<td>-.78</td>
</tr>
<tr>
<td>Intrusion - T2</td>
<td>10.07</td>
<td>.32</td>
<td>9.40</td>
<td>10.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoidance T1</td>
<td>10.87</td>
<td>.89</td>
<td>9.09</td>
<td>12.69</td>
<td>-.24</td>
<td>-.31</td>
</tr>
<tr>
<td>avoidance - T2</td>
<td>11.11</td>
<td>.38</td>
<td>10.36</td>
<td>11.80</td>
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between the two times, Paired t test was done. The results showed there was statistically significant differences in mean of post traumatic stress reaction toward the post therapy period, adolescents reported more post traumatic stress reactions after the therapy (t= -6.16, p = 0.001). Also, intrusion mean increased after the therapy from 9.6 to 10.10. This did not reach statistically significant differences. Also, avoidance symptoms increase from mean 9.78 to 10.66. This did not reach statistically significant differences.

There was statistically significant differences in post traumatic stress reactions in girls measured by IES-8 items in which there were increase in mean PTS Reactions in the second time (mean =16.95 vs. mean= 20.66).

There was statistically significant differences in post traumatic stress reactions in boys measured by IES-8 items in which there was increase in mean post traumatic stress reactions in the second time (mean =17.01vs. mean= 20.64) (t= -6.16, p = 0.001).

**Depression Measured by Children Depression Inventory**

Using Children Depression Inventory, 70 children assessed before and after the therapy. The mean depression reported by children in the first assessment was 13.44 which increase to 13.79. This increasing was not statistically significant.

There was no statistically significant differences in depression scores in boys measured by CDI (mean =8.85 vs. mean= 5.0) (t=-0.03, p = 0.96). This also was applicable to girls (mean = 15.28 vs. mean =15.74) (t = -0.55, p = 0.59).

**Anxiety Measure by Revised Children Manifest Anxiety Scale**

Out of 92 children, 80 children were assessed before and after the therapy, mean anxiety assessed before the therapy was 10.86 and after the therapy mean was 10.04. The results showed that there was statistically significant differences in anxiety toward decreasing anxiety after the therapy (t = 2.28, p = 0.02).

There was statistically significant differences in anxiety scores in boys measured by RCMA even there was decrease in mean anxiety scores in the second time (mean =8.66 vs. mean= 7.34) (t= 2.2, p = 0.03).

However, there was no statistically significant differences in anxiety scores in girls measured by RCMA even there was decrease in mean anxiety scores in the second time (mean =12.12 vs. mean= 11.57) (t= 1.19, p = 0.24).

**Discussion**

Our study aimed to investigate the efficacy of writing expressive therapy as one of the non medication intervention for treatment of children in area of continuous trauma and war in the Gaza Strip. Our study results showed that Palestinian children experienced of traumatic events by Israelis dropped from were 9.2 to 8.72 and traumatic events due to factional fighting increase from 4.5 to 4.63. The continuity of adolescents to report traumatic events could be due to the fact that they are living in area with continuous conflict and war, also could be due presence of other risk factors in the society such as closure of the Gaza Strip and bad socioeconomic status of the families due to delay in paying employee monthly salary and unemployment of the family members. This also could be to the short period of the therapy and children are living in non safe environment. Our findings of adolescent’s high exposure to traumatic events are consistent with our previous studies in the area [23, 24].

Interestingly the results showed that post traumatic stress reactions measured by Impact of Events Scale increased after the therapy from mean (17.01) to (20.64) after the expressive writing therapy. Also, intrusion mean increased from 9.6 to 10.10 and avoidance symptoms increase from mean 9.78 to 10.66. However anxiety assessed dropped after the intervention from 10.86 to 10.04. While, depression symptoms reported by children in the first assessment were not changed significantly (mean= 13.44) before the intervention and (mean= 13.79) after the intervention. The results were consistent with our previous study [6] which showed no significant impact of the group intervention on children’s posttraumatic or depressive symptoms. These results could be explained by the fact that adolescents in the area are victims of continuous trauma which influence their mental health wellbeing and maintained the symptoms of post traumatic stress. However others found that narrative exposure therapy technique (NET) which was used it in a Rehabilitation Center for Torture with adult refugees in the Sudan; made significant improvements [10]. Others such as examining adolescents with PTSD 2-3 years following exposure to disaster, and by Goenjian et al (1997) in which cognitive behaviour therapy for PTSD began 1.5 years after exposure to a disaster [25,3]. These results both indicate that children who have significant PTSD symptoms benefit from cognitive beahviour therapy intervention for both the PTSD and related difficulties such as depression, social competence and behavioural problems.

Others used different types of intervention and the results were promising, three randomized, controlled psychosocial treatment studies of sexually abused children with acute PTSD symptoms also demonstrate the superiority of CBT compared with non-directive supportive therapy or usual treatment in the community [26]. A comprehensive review by on treatment available for children who have suffered sexual abuse concluded that, ‘cognitive behaviour therapy for children who are symptomatic’ (including suffering from PTSD) ‘has the strongest research evidence for efficacy’ [27]. A randomized controlled study evaluating the effectiveness of a group cognitive behaviour therapy treatment package for a cohort of schoolchildren in Los Angeles, USA, who had PTSD symptoms as a result of living in a community with high levels of violence, found clinically significant improvements which were maintained at 6-month follow-up [28].

**Clinical Implications**

In this study, expressive writing therapy did not influenced much Palestinian adolescents’ PTSD, depression symptoms even symptoms increased or did not change, but anxiety symptoms decreases. These results compared with results of other trial studies of using other types of therapy are not promising. This could be
due to the unique situation of Palestinian adolescents who grow up in area of continuous violence, trauma, poverty, and abuse. So, follow up of the same adolescents should be conducted after few months to find out about the effect of such intervention. Also, more trial studies comparing this type of therapy with other types of therapy should be carried out in safer place which is impossible in Gaza Strip.

References