The Arab Journal of Psychiatry (2017) Vol. 28 No.1 Page (36 - 45) (doi: 10.12816/0036880)

The Relationship between War Trauma and Anxiety and Posttraumatic Stress Disorder among Preschool Children in the Gaza strip

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العلاقة بين رض الحرب واضطراب كرب ما بعد الرض والقلق لدى الاطفال ما قبل سن المدرسة في قطاع غزة

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Abstract

Aim: The current study investigated the relationship between war trauma and anxiety and posttraumatic stress disorder (PTSD) among preschool children in the Gaza Strip. **Methods:** N=399 mothers and their preschool children who were enrolled in kindergartens in the Gaza Strip. Child ages ranged from 3-6 years with mean age of 4.48 years. Mothers were interviewed using a sociodemographic questionnaire, Gaza Traumatic Events Checklist, Child PTSD Symptom Scale-parent form, and Spence Children's Anxiety Scale. **Results:** The most commonly reported traumatic experiences by mothers for their children were: hearing shelling of the area by artillery (95.5%), hearing loud noises from drones (89.2%) and seeing mutilated bodies on TV (81.2%). The mean number of traumas experienced by preschool children was 8.3. PTSD prevalence was 6% with scores higher in children aged five and older. The mean for total anxiety was 49.84, generalized anxiety was 10.7, social anxiety was 8.4; specific phobia was 21.1, and separation anxiety was 9.65. There were significant associations between trauma and PTSD and anxiety as well as a significant association between PTSD and anxiety. **Conclusion:** Preschool children exposed to war-related incidents are at risk of developing PTSD and anxiety problems, which highlights the need to establish programs for preschool children affected by traumatic events associated with war.

Key words: Trauma, Posttraumatic Stress Disorder, PTSD, anxiety, preschool children, war, Gaza
Declaration of interest: None

Introduction

Since 1948, Palestinians have suffered from repeated episodes of war and conflict, which have occurred approximately every seven to 10 years. Palestinians live under severe conditions with the expectation that every nine years there will be war or an Intifada (uprising) compounded by a continued sense of oppression caused by the Occupation.[1] In the last seven years, people living in Gaza have been exposed to three recurrent wars: the first was on December 2008, which lasted 23 days; the second started on November 2012 and lasted for 8 days; and the most recent started on July 2014 and went on for 51 days.

On 7 July 2014, a humanitarian emergency was declared in the Gaza Strip, which involved intense Israeli aerial and navy bombardment. Israeli aggression de-escalated following an open-ended ceasefire which came into force on 26 August 2014. The scale of destruction, devastation and displacement during the 51 days of conflict was unprecedented in Gaza since at least the start of the Israeli occupation in 1967. The humanitarian impact of this aggression is understood against a backdrop of heightened vulnerability and instability in Gaza.[2]

There is no doubt that these offenses have too many devastating effects causing physical, emotional and psychological problems for people living in the Gaza Strip, including children. Traumatic events related to war affected Palestinians' normal daily life and had a negative impact on individual well-being in all ages, especially children. Psychiatric disorders associated with war traumas are best regarded, according to the International Classification of Diseases - 10th Edition (ICD-10), as depressive adjustment disorders with anxiety symptoms (e.g. generalized anxiety, phobic anxiety, etc.) and posttraumatic stress disorder (PTSD) as a reaction to loss of security.[3,22,30]

Trauma overwhelms the affected person's ego capacities to understand what has happened. Fundamental assumptions about the safety of the world and trust in the relationships are undermined as the individual struggles to assimilate this experience.[4] Children who experience severe early trauma often develop a foreshortened sense of the future. They come to expect that life will be dangerous; that they may not survive; and, as a result, they give up hope and expectations for themselves that extend into the future.[5]

Exposure to trauma in early childhood may cause disruptive and disorganizing effects on early physical, cognitive, social and emotional development. Traumatized preschoolers often present with regulatory and social difficulties, including frequent tantrums, aggression and noncompliance. Some young children exposed to trauma develop symptoms consistent with a diagnosis of PTSD.[6] Children may suffer from PTSD as well as other types of psychopathology, which are not specific to the experience of trauma, such as general anxiety and depression.[7] PTSD symptoms include re-experiencing the traumatic event, avoidance of reminders of the event, and hyperarousal. Responses to violence and trauma may be categorized as either self-directed or directed toward others and can include nightmares and sleep disturbances, regression and clinginess to caregivers, loss of concentration and learning difficulties, fearfulness and anxiety as well as aggressive behavior.[8]

Previous studies have shown strong associations between traumatic experiences and PTSD symptoms among pre-school children, but few children have met the full diagnostic criteria for PTSD due to the old diagnostic criteria used when assessing the condition in preschool children. Previous studies reported high levels of internalizing and externalizing symptoms as well as PTSD symptoms of re-experiencing, avoidance, and hyperarousal in toddlers who experienced traumatic life events[9,10] though they may not meet the full criteria for this diagnosis.[11] Early childhood trauma also contributes to adverse outcomes in adulthood, including depression, PTSD, substance misuse, health problems (likely related to increased stress and wear and tear on the immune system) and decreased occupational attainment.[12] Studies conducted on Palestinian children during the first Intifada showed that they suffered from depression, anxiety, and PTSD symptoms.[13 14 15]

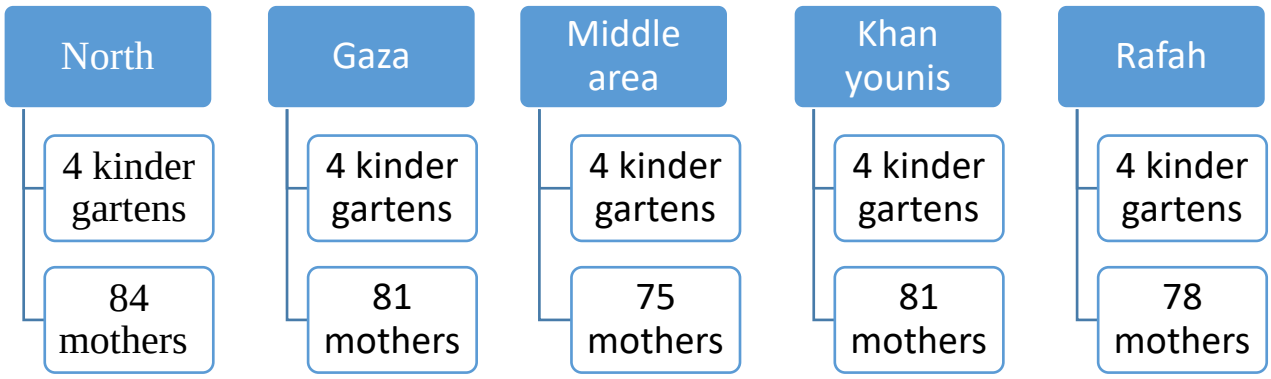
The present study aimed to investigate the relationship between war trauma and anxiety and PTSD among preschool children in the Gaza Strip.

Methods

Participants

The study sample consisted of N=420 mothers of preschool children. From this sample only n=399 mothers were reached and N=399 preschool children were also included (n=165 boys, 41.35% and n=234 girls, 58.65%. Their ages ranged from 3-6 years (M=4.48 years).

Figure 1. Distribution of the study sample according to place of residence



Instruments

Sociodemographic scale

Demographic information about the participants included gender, age, number of siblings, area of residence and monthly family income.

Gaza Traumatic Event Checklist (GTECL)[16]

The Gaza Traumatic Checklist was originally developed by the Gaza Community Mental Health Program to assess level of trauma exposure typical for the Palestinian population in Gaza.[16] This version of the Gaza Traumatic Event Checklist, updated after the most recent war on Gaza on 2014, lists 25 events relevant to the Israeli attacks. Items number 1-4 indicated hearing experiences, items 5-15 indicated witnessing experiences, and items 16-25 indicated direct exposure to trauma. The checklist was completed by mothers with (‘yes’ or ‘no’ statements). Mothers were asked about the events their children had experienced in the preceding 12 months. The total composite score (0–25) provides an indication of the amount and type of war exposure the

respondent has experienced during the war. This scale was validated in Palestinian society.[21,23] The internal consistency of the scale, calculated using Chronbach's alpha, was α=0.82.

Child PTSD Symptom Scale-parent form (CPSS) [17]

Posttraumatic stress symptomatology in children was assessed using a modified version of the Child PTSD Symptom Scale (CPSS). Using a 4-point scale ranging from 0 = not at all to 3 = five or more times a week, mothers rated the frequency with which the child demonstrated each of the 17 items, corresponding to the DSM-IV PTSD symptoms. This measure has shown good convergent, discriminant validity, and high reliability in assessing PTSD in older age group Palestinian children.[3] The internal consistency of the scale, calculated using Chronbach's alpha, was α=0.91.

Spence Children's Anxiety Scale (SCAS)[18]

A preschool version (The Preschool Anxiety Scale) was adapted from the Spence Children's Anxiety Scale (SCAS) by Spence.[18] The Arabic version of the scale was used in the current study consisted of a list of 28 items that describe anxiety in preschool children. It assesses generalized anxiety (1, 4, 8, 14, 28), social phobia (social anxiety) (2, 5, 11, 15, 19, 23), separation anxiety (6, 12, 16, 22, 25), obsessive-compulsive disorder (3, 9, 18, 21, 27), and physical injury fear (7, 10, 13, 17, 20, 24, 26). For each item, the parent circles the response that best describes her/his child. She/ he should circle the 4 if the item is very often true, 3 if the item is quite often true, 2 if the item is sometimes true, 1 if the item is seldom true or if it is not true at all circle the 0. The parent should answer all the items as well as she/he can, even if some do not seem to apply to her/his child. This scale was validated in Palestinian society and internal consistency, calculated using Chronbach's alpha, was as follows: generalized anxiety (5 items) where the value of alpha (α= 0.61), social anxiety (6 items) where the value of alpha (α= 0.68), OCD (5 items) where the value of alpha (α=0.57), physical injury anxiety (6 items) where the value of alpha = (0.76), separation anxiety (5 items) where the value of alpha (α= 0.57) and the value of split half = (0.43).[19] The internal consistency of the total anxiety scale, calculated using Chronbach's alpha, was α=0.90.

Study Procedure

The data was collected from 20 kindergartens (four kindergartens from each area of Gaza Strip - the North area, Gaza city, Middle area, Khan Younis and Rafah). We had an official letter of approval from the Palestinian Ministry of Education-Kindergarten section. The data was collected by the first author and three assistants. The researcher collected data through meeting the principal of each of the 20 kindergartens, which were chosen randomly from the list of kindergartens given by the Ministry of Education. We explained the purpose of the study then asked them to select randomly from the registration book the number of children already prepared in a list for sampling. Mothers of the selected children received a written form to sign explaining the study purpose and stressing that the data will be kept with the researchers for scientific research and their confidentiality, and that of their children, was ensured. The mothers were interviewed by researchers and field workers inside the kindergartens with interview lasting 30 minutes. The response rate was 95%. Data collection was conducted in May 2015.

Statistical analysis

We used the Statistical Package of Social Science - version 20 (SPSS 20.0) for data entry and analysis. Data coding and recording was completed before analysis. Frequency tables that show sample characteristics and plot differences between various variables were done. Descriptive statistics were used to present the characteristics of the sample. Independent *t* test was used to test the gender differences related to children, trauma, PTSD, and anxiety. One-way ANOVA test was used to study the differences among the 'means' of preschoolers' trauma, PTSD and anxiety according to age, family income, and type of residence. Pearson correlation was used to explain and clarify the data and to demonstrate the relationship between preschool children trauma and anxiety, the relationship between preschool children trauma and PTSD, and the relationship between preschool children anxiety and PTSD. Linear regression investigated the association between independent (traumatic events) and psychological problems (PTSD and anxiety) as dependent variables.

Results

Socio-demographic characteristics of the preschool children

As shown in Table 1, the total number of questionnaires returned were 399, 174 (50.4%) were from boys and 171 (49.6%) were from girls, which resulted in a response rate of 95%. Ages ranged from 3-6 years with mean age 4.48 (SD=0.67). Regarding place of residence, 21.02% of children were from North Gaza, 20.30% were from

Gaza, 18.8% from Middle area, 20.3% from Khan Younis, and 19.55% from Rafah.

Table 1. Socio-demographic characteristic of the preschool children (N=399)

Gender	***Number***	
Boys	165	41.35
Girls	234	58.65
Age *mean age 4.48 (SD =0.67).*		
3-4 years	171	42.9
5-6 years	228	57.1
Number of siblings		
4 and less	262	65.66
5-7 siblings	89	22.31
8 and more	48	12.03
Place of residence		
North Gaza	84	21.05
Gaza	81	20.30
Middle area	75	18.80
Khan Younis	81	20.30
Rafah	78	19.55
Family monthly income		
Less than 1200 NIS (one $ =3.80 NIS)	252	63.16
1201 - 2500 NIS	76	19.05
2501 - 3000 NIS	33	8.27
3001 NIS and more	38	9.52

Types of traumatic events after 51 days of war

The most common traumatic experiences reported by mothers on behalf of their children were: hearing shelling of the area by artillery (95.5%), hearing the loud noise of drones (89.2%), seeing mutilated bodies on TV (81.2%), being forced to leave home with family members due to shelling (64.4%) and inhalation of bad smells due to bombardment (62.2%). The least common traumatic experiences were: threats of being killed (6.5%), witnessing close relatives receive threats of being killed (7.8%) and threatened with death by being used as human shield moving from home to home by the army (8%).

Table 2. Type of traumatic event

	Yes		**No**	
Type of traumatic event	**No.**	**%**	**No.**	**%**
Hearing shelling of the area by artillery	381	95.5	18	4.5
Hearing the loud noise of drones	356	89.2	43	10.8
Seeing mutilated bodies and dead people on TV	324	81.2	75	18.8
Being forced to leave your home with family members due to shelling	257	64.4	142	35.6
Inhalation of bad smells due to bombardment	248	62.2	151	37.8
Hearing about the killing of a known person	235	58.9	164	41.1
Witnessing firing by tanks or heavy artillery at neighbors' homes	182	45.6	217	54.4

Witnessing demolition of big buildings	168	42.1	231	57.9
Hearing about the killing of a close relative	149	37.3	250	62.7
Deprivation from water or electricity during detention at home	141	35.3	258	64.7
Witnessing firing by tanks and heavy artillery at own home	100	25.1	299	74.9
Witnessing assassination of people by rockets	100	25.1	298	74.9
Threatened by shooting	92	23.1	307	76.9
Witnessing shooting of a known person	85	21.3	314	78.7
Witnessing shooting of a close relative	74	18.5	325	81.5
Witnessing killing of a close relative	73	18.3	326	81.7
Destruction of your personal belongings during incursion	63	15.8	336	84.2
Witnessing killing of a known person	56	14	343	86
Witnessing arrest of a known person	51	12.8	348	87.2
Exposure to physical injury as a result of the bombing of your home	44	11	355	89
Exposure to physical injury caused by shrapnel, bullet or missile	40	10	359	90
Witnessing arrest of a close relative by the army	38	9.5	361	90.5
Threatened with death by being used as human shield by the army to move from one home to home	32	8	367	92
Threat of having a close relative being threatened with killing	31	7.8	368	92.2
Threat of being killed	26	6.5	373	93.5

The study showed that Palestinian preschool children in the Gaza Strip had experienced from 0-25 traumatic events with the mean being 8.3 traumatic events (SD= 4.30). Independent *t*-test was conducted. The results showed that the mean number of traumatic events in boys was 7.99 (SD=4.07) and 8.67 for girls (SD=4.45). There were no statistically significant differences in total traumatic events according to gender (t=1.55, *p*=0.21).

For other sociodemographic variables the results showed that there were statistically significant differences in traumatic events in favor of children living in the Middle area (F=8.8, *p*=0.001). In addition, children having more than eight siblings had more traumatic events than the other two groups (F=17.29, *p*=0.001) and children having a family monthly income of less than 1200 NIS experienced more traumatic events than the other three groups (above 1201 NIS) (F=17.29, *p*=0.001).

Prevalence of PTSD

According to DSM-IV-diagnostic criteria for PTSD, a person must have reported one re-experiencing symptom, three avoidance symptoms, and two arousal symptoms. Results showed that n=160 children (40.1%) reported no PTSD symptoms, n=116 children (29.1%) reported at least one criterion of PTSD (B or C or D) with n=99 indicating partial PTSD (24.8%), and n=24 reporting full criteria of PTSD (6%) as Table 3 shows.

Table 3. Prevalence of PTSD

PTSD symptoms	**No.**	**%**
No PTSD	160	40.1
One symptom	116	29.1
Partial PTSD	99	24.8
Full PTSD	24	6.0

PTSD and sociodemographic variables

Only one significant difference was found in the PTSD subscale according to age of preschool children on the arousal subscale for the 5-6 years old group of children. The results showed that children aged 5-6 have reported having more PTSD symptoms than 3-4 years old children (M=7.77, SD=4.35) (t=2.62, *p*=0.009).

One-way ANOVA analysis was conducted to find the differences between PTSD and number of siblings. Significant differences in total PSTD and subscales according to number of siblings were found. Total PTSD symptoms for re-experiencing, avoidance and arousal were higher in children with eight or more siblings. (M=24.85, SD=11.41).

Frequency of preschool anxiety symptoms

The most common anxiety symptoms reported by parents were: he/she has to keep thinking special thoughts (e.g., numbers or words) to stop bad things from happening (66%), has nightmares about being apart from me (65.4%), is afraid of the dark (62.2%), is afraid of talking in front of the pre-school class group (e.g., show and tell) (57.9%), worries that something bad might happen to him/her (e.g., getting lost or kidnapped), and that he/she won't be able to see you again (56.3%).

Prevalence of preschool anxiety

Preschool anxiety scales showed that the mean for total anxiety scale was 49.84, generalized anxiety was 10.7, social anxiety was 8.4, specific phobia was 21.11 and separation anxiety was 9.65.

Anxiety and sociodemographic variables *t*-test was conducted to find the differences in anxiety according to gender. Results showed that there were no significant differences in means of anxiety and all subscales according to gender. The ages of children were categorized as 3-4 years and 5-6 years. An independent *t*-test was conducted with results showing no significant differences in mean anxiety according to age group (*t*= 0.94, *p*=0.34). The results showed that there were statistically significant differences in total anxiety in favor of children living in the Rafah area (F=4.9, *p*=0.001), social phobia (F=2.65, *p*=0.03), generalized anxiety (F=3.9, *p*=0.004), separation anxiety (F=5.1, *p*= 0.001), and specific phobia (F=2.5, *p*=0.03). Moreover, results showed that children having family monthly income of less than 1200 NIS were more anxious than the other three groups (F=10.16, *p*=0.001).

Relationship between trauma, PTSD and anxiety

Pearson correlation test was conducted to find the association between trauma, PTSD and anxiety. Results showed that there was significant association between total traumatic events reported by children and total anxiety (r=0.30, *p*=0.001), generalized anxiety (r=0.31, *p*=0.001), separation anxiety (r=0.25, *p*=0.001), and specific phobia (r=0.14, *p*=0.01). This suggests experiences that are more traumatic lead to anxiety. In addition, trauma was associated with total PTSD (r=0.32, *p*=0.001), re-experiencing (r=0.32, *p*=0.001), avoidance (r=0.28, p=0.001) and arousal (r=0.23, *p*=0.001).

Table 5. Pearson correlation coefficient test between trauma, PTSD and anxiety

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1. Trauma									
2. Total anxiety	.30**								
3. Social anxiety	.29**	.76**							
4. Generalized anxiety	.31**	.82**	.62**						
5. Separation anxiety	.25**	.77**	.42**	.60**					
6. Specific phobia	.14**	.82**	.42**	.47**	.52**				
7. Total PTSD	.32**	.64**	.46**	.60**	.48**	.48**			
8. Re-experiencing	.32**	.59**	.39**	.58**	.47**	.44**	.90**		
9. Avoidance	.28**	.55**	.47**	.51**	.39**	.38**	.88**	.67**	
10. Arousal	.23**	.58**	.38**	.54**	.43**	.49**	.90**	.76**	.68**

*$p<0.05$, ** $p<0.01$, *** $p<0.001$

Prediction of PTSD by traumatic events

In a univariate linear regression analysis, each traumatic event associated with war was entered as an independent variable in a multiple regression model, with total PTSD scores as the dependent variable. Two events were significantly associated with total PTSD: hearing about the killing of a known person (β=0.18, *p*=0.001) and hearing shelling of the area by artillery (β=0.12, *p*=0.01).

Other significant incidents were deprivation from water or electricity during detention at home (β=0.11, p=0.02), witnessing shooting of a close relative (β=0.12, *p*=0.02) and destroying of your personal belongings during incursion (β=0.10, p=0.04) (F=10.92 p<0.001, R2=0.13).

Table 6. Linear regression analysis for prediction of children PTSD by traumatic events

	Unstandardized Coefficients		**Standardized Coefficients**	**T**	**Sig.**	**95.0% Confidence Interval for B**	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	21.71	2.88		7.53	0.001	16.04	27.38
Hearing about killing of a known person	4.57	1.24	0.18	3.68	0.001	2.13	7.01
Hearing shelling of the area by artillery	-7.56	2.88	0.12	2.63	0.01	13.22	1.90
Deprivation from water or electricity during detention at home	3.04	1.30	0.11	2.34	0.02	0.48	5.59
Witnessing shooting of a close relative	3.87	1.68	0.12	2.30	0.02	0.56	7.17
Destruction of your personal belongings during incursion	3.54	1.72	0.10	2.06	0.04	0.15	6.92

Prediction of anxiety by traumatic events

In a univariate linear regression analysis, each traumatic event associated with war was entered as an independent variable in a multiple regression model, with total anxiety scores as the dependent variable: two events were significantly associated with total anxiety: being threatened by shooting (β=13, *p*=0.001) and hearing about the killing of a friend (β=0.15, *p*=0.01). Other significant experiences were witnessing shooting of a close relative (β=12, *p*=0.01) and deprivation from water or electricity during detention at home (β=12, *p*=0.02) (F=11.19, *p*<0.001, R2=0.09).

Table 7. Linear regression analysis for prediction of anxiety by traumatic events

	Unstandardized Coefficients		**Standardized Coefficients**	**T**	**Sig.**	**95% Confidence Interval for B**	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	41.70	1.70		24.55	0.001	38.36	45.04
Threatened by shooting	6.32	2.56	0.13	2.47	0.01	1.29	11.36
Hearing about killing of a friend	6.21	2.05	0.15	3.02	0.001	2.17	10.24
Witnessing shooting of a close relative	6.66	2.64	0.12	2.53	0.01	1.48	11.85
Deprivation from water or electricity during detention at home	5.28	2.21	0.12	2.39	0.02	0.93	9.62

Discussion

The current study investigates the relationship between war trauma experiences in 2014, anxiety and PTSD on preschool children in the Gaza Strip. Children commonly reported shelling of the area by artillery, hearing the loud noise of drones, seeing mutilated bodies on TV, being forced to leave home with family members due to shelling and inhaling bad smells due to bombardment. Less common experiences were the threat of being killed, threat of having a close relative killed in front of them, and the threatened to be used as a human shield by the Israeli army while being moved from home to home. Such findings were consistent with the results of other studies conducted with children in Gaza who were exposed to war-related trauma. The studies showed that the most commonly reported traumatic events were witnessing mutilated bodies and wounded people on television and witnessing the bombardment of other's houses by airplanes and helicopters.[19,20,21,22] The results showed that 26.8% reported mild, 45.6% reported moderate, and 26.6% reported severe traumatic events. Such results were consistence with a previous study of preschool children in the Gaza Strip.[21] The study showed no significant statistical differences in reported traumatic events according to gender. Such findings were inconsistent with previous studies of older children, which suggested that boys were more traumatized than girls.[22] Results demonstrated that there were statistically significant differences in reporting traumatic events in children living in the Middle area of the Gaza Strip. Such findings could be due to the sample of kindergartens chosen from the Middle, which was one of border areas. Poor children from families with a monthly income of 1200 NIS ($300) reported more traumatic events than wealthier families. Such findings could suggest that families living near the border areas are farmers whose lands were destroyed in the previous two wars on Gaza, which left such families impoverished and more vulnerable to risk of repeated exposure to trauma, including ground incursion.

Using DSM-IV diagnosis of PTSD, participants would have to report one symptom of re-experiencing, three of avoidance and two of arousal. Results found that 6% of children met the full criteria for a PTSD diagnosis. Findings in the present study were consistent with results of previous studies. In a study of children who were burned, it was found that 10% had PTSD at six months post-injury.[23] The current findings were also consistent with previous studies, which found no differences between boys and girls in relation to the severity of traumatic events if they were mainly with parents during the war and not exposed to trauma in the way older children were exposed.[24] Results showed significant differences in PTSD and its symptom clusters according to age. The group of five year old children reported greater PTSD symptom levels than the other ages. Studies showed that children under age six rarely possess the social, verbal or cognitive ability to relay symptomology associated with previous PTSD diagnostic criteria. These results were consistent with other study results, which showed that very young children cannot conceptualize traumatic events because their cognitive abilities to appraise the meaning of the traumatic events are not as developed as those of older children. Instead, they may present with non-specific behavioral or emotional disorders rather than PTSD reactions. Older children are possibly more vulnerable to developing the full presentation of PTSD after exposure to a severe traumatic event.[25,26,27,28]

The mean for total anxiety scale was 49.84. It was higher than results from previous studies conducted in the Gaza Strip, which showed that the mean anxiety score for preschool children was 27.46. Such findings could be due to new traumatic events from the 2014 war and/or because families were not able to protect their children since there were even fewer safe places in the Gaza Strip due to repeated air strikes and shelling. No significant differences were found between the means for anxiety problems for boys and girls in terms of total anxiety and all subscales, and no significant differences were found between the means of preschoolers' anxiety problems according to age. Other studies reported no gender differences in anxiety symptoms, except for physical injury fear, which was higher in girls than in boys. Anxiety problems were greater in children with low family income.[29] Also, such findings were consistent with other studies which showed no significant gender differences in prevalence of anxiety disorders in preschool children.[19,30] Our study showed that preschool children with eight siblings or more experienced more anxiety symptoms. Previous results also found that trauma severity and PTSD were positively associated with having large numbers of siblings. Such findings were consistent with a study of preschool anxiety disorders in pediatric primary care, which found that preschoolers who lived with many siblings were more likely to meet the criteria for generalized anxiety disorder, social phobia, and any anxiety disorder.[31]

Our results showed that there was significant correlation between total traumatic events reported by children and total anxiety, generalized anxiety, separation anxiety, and specific phobia and with total PTSD, re-experiencing, avoidance, and arousal, which was also consistent with most of the studies conducted on children in Gaza and other areas.[19,32] In addition, our results were consistent with a study of New York City preschool children eight

to 10 months after September 11, 2001 in which trauma exposure was significantly correlated with PTSD symptoms.[33]

Study limitations

One of the study limitations was reliance on mothers' reports, which were not sufficient for accurately assessing the psychological disorders of their preschool age children. Preschool children may be subject to the effect of parental recall and parental mental health when their difficulties are being reporting. Information from other informants (predominantly teachers) together with observational assessments could have corroborated information obtained from parents. One other study limitation was the absence of a suitable control group of unaffected (resilient) children. Factors contributing to resilience could have been inferred from a controlled study since other tools used in the present study have never been standardized on Palestinians.

Clinical implication

The current study contributes to the existing literature by demonstrating that exposure to war-related trauma contributed to the presence of PTSD and anxiety-related problems among preschool children. Such findings highlight the need for additional and also newer methods of intervention for preschool children living in areas of war and conflict. Such methods of intervention should target all preschool children to reduce the effects of war trauma on them. In addition, organized activities in kindergartens could include activities to maintain psychosocial connections between children and their mothers or caregivers. It is important to promote active participation between mothers and their children. Societal institutions should organize activities for parents and caregivers of preschool children to improve their mental health and help children overcome war trauma, such as through various training courses and educational programs.

In addition, future research should involve the psychiatric assessment of primary care givers in parallel with assessment of their children in order to understand the impact of family and social support in the development of PTSD and anxiety problems in preschool children living in the Gaza Strip.

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الخلاصة

الهدف: هدفت هذه الدراسة إلى فحص العلاقة بين الرضوض الناتجة عن الحرب واضطراب كرب ما بعد الرض واضطرابات القلق لدى اطفال مرحلة ما قبل المدرسة بعد الحرب الأخيرة على غزة سنة 2014. **الطريقة:** تكونت العينة من 399 أم لأطفال ما قبل المدرسة المسجلين في 20 روضة أطفال في مناطق قطاع غزة والذين تراوحت أعمارهم بين 3-6 سنوات. واستخدمت في هذه الدراسة عدة مقاييس خاصة بالأم وهي مقياس المعلومات الديموغرافية، ومقياس الرضوض الناتجة عن الحرب على غزة. ومقياس اضطراب كرب ما بعد الرض، ومقياس القلق لدى الأطفال ما قبل المدرسة. النتائج: لقد وجدت الدراسة على حسب رأي الأم أن 95.5% قد سمعوا القصف على المناطق المختلفة، و89.2% تعرضوا لسماع صوت موتور الطائرات بلا طيار، 81.2% شاهدوا صور الجرحى والشهداء الفلسطينيين على شاشات التلفاز. وكان متوسط الخبرات الصادمة لكل طفل هو حوالي 8 خبرات رضية. أشارت الدراسة إلى أن نسبة انتشار اضطراب كرب ما بعد الرض بعد أكثر من ستة أشهر على انتهاء الحرب كانت 6%. وكان متوسط القلق لدى الأطفال حوالي 50، ومتوسط القلق العام لجزء من القلق هو 10.7، والقلق الاجتماعي 8.4، والمخاوف الخاصة 21.11، وخوف الانفصال عن الأم 9.65. كما وجدت الدراسة ان أعراض اضطراب كرب ما بعد الرض كانت أكثر انتشارًا لدى الأطفال الذين كانت أعمارهم 5 سنوات. وأظهرت الدراسة أن هناك علاقة قوية بين التعرض للخبرات الرضية واضطراب كرب ما بعد الرض والقلق لدى اطفال ما قبل المدرسة. **التوصيات:** الدراسات المستقبلية لا بد أن تتضمن التقييم النفسي لمقدم الرعاية للطفل (الأم أو الأب) بالإضافة الى التقييم الخاص بالطفل نفسه من أجل فهم أثر الدعم من الأسرة و الدعم الاجتماعي على تطور اضطراب كرب ما بعد الرض و اضطرابات القلق لدى اطفال ما قبل المدرسة في قطاع غزة، بالإضافة الى عمل دراسات أكثر عمقًا تقيس أثر عدد الأحداث الصادمة التي تم التعرض لها الطفل بالإضافة الى قياس أثر شدة الحدث لأنواع مختلفة من رضات الحرب عوضاً عن القيام بعد الخبرات الصادمة التي تعرض لها الأطفال فقط من أجل تحديد شدة الأحداث الصادمة.

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