# Post-Traumatic Stress Disorder due to War Trauma, Social and Family Support among Adolescent in the Gaza Strip

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# **Research Article**

# ABSTRACT

**Aim:** This study aimed to find the relationship between trauma due to war and post-traumatic stress disorder, social, and family support among adolescent in the Gaza Strip. The sample consisted of 400 students (200 boys and 200 girls).

**Method:** The adolescents were interviewed by Gaza Traumatic Events Checklist, Post-traumatic Stress Disorder Checklist, Social Support Scale and Family Crisis Oriented Personal Evaluation Scale.

**Results:** The study showed that mean traumatic experiences reported was 12.19. Boys had been exposed more than girls. The study showed that 25% of adolescents reported partial PTSD and 9.3% had full criteria of PTSD. Boys reported more PTSD than girls. Mean of social support was 83. Adolescents aged 13 years had less total social support than the older group. Mean of family support was 97.33, acquiring social support was 28.62, reframing was 26.18, seeking spiritual support was 14.26, mobilizing family to acquire and accept help was 12.48, positive appraisal was 12.75. There was positive correlation between total traumatic events and PTSD, intrusion and avoidance. While, total traumatic events were correlated negatively with family coping and social support. There was positive correlation between PTSD and social support and family support.

Keywords: Adolescent, Family support, Gaza strip, Post-traumatic stress disorder, Social, War trauma

# INTRODUCTION

Palestinians in Gaza Strip are exposed to continuous stress and trauma due to siege and wars, which had negative impact on their psychological, economic, and social, life. Child and adolescent are at risk of high exposure to traumatic events which increase prevalence of posttraumatic stress disorder, anxiety and depression <sup>[1]</sup>. On August 2014, another war on Gaza increased the suffering of children and their families. This war lasted for 51 days. At the end of the war, the number of killed people was 2,145, 578 of them were children and adolescents, 11,000 others had been wounded, over, over 100,000 were displaced from border areas, and approximately 18,000 houses were completely destroyed or severely damaged <sup>[2]</sup>.

#### **PTSD in Children and Adolescents**

Trauma is a life-threatening event which had negative impact on children's mental health. Research has largely focused on psychological symptoms such as posttraumatic stress disorder (PTSD), while the impact of trauma on social relations and other developmental aspects, as important as they are, is ignored <sup>[3]</sup>. Studies of PTSD in adolescence published from 2003 to 2015 indicate that adolescents are at greater risk of experiencing trauma than either adults or children, and that the prevalence of PTSD among adolescents is 3-57% <sup>[1,4-11]</sup>. Additionally, adolescents with less social support are more likely to experience trauma and develop PTSD <sup>[12]</sup>.

#### **Social Support and PTSD**

Social support has been defined as "those social interactions or relationships that provide individuals with actual assistance or that embed individuals within asocial system believed to provide love, caring or a sense of attachment to a valued social group". Lack of social support after exposure to traumatic events is one of the strongest predictors of posttraumatic stress disorder (PTSD). While, Galea et al. <sup>[13]</sup>, found that the inverse relationship between social support and PTSD strengthened as the length of time since the trauma increased. Social support has been considered to be an important factor influencing an individual's reactions to stress and it also has a beneficial effect on PTSD.

Social support from parents, peers and others has been found to be a protective factor both before and after a trauma <sup>[14]</sup>. Kaniasty and Norris empirically supported these findings and demonstrated a sequential role in how social factors influence symptom outcome. In a sample of natural disaster survivors, social causation, with more positive social interactions leading to less PTSD, was found to be the best supported theory 6 to 12 months following the trauma. Studies that have investigated perceived positive and negative social support separately, for example, have found that perceived positive social support post-trauma is associated with better subsequent mental health outcomes, while perceived negative social support is linked to greater psychological distress. In this manner, higher social support provides a buffer against the development and maintenance of PTSD symptoms over time <sup>[15]</sup>. Another theory posits the opposite direction of effects, whereby PTSD symptoms themselves lead to an erosion of social support over time, either by survivors withdrawing from social contact over time, or by survivors' symptoms leading to burnout in their support network or both <sup>[16]</sup>. Moreover, Thabet et al. <sup>[7]</sup>, in a study of Palestinian children exposed to war trauma showed perceived parenting support was found to act as a protective factor in this association. Similarly, Ouda <sup>[17]</sup> in study the relationship between the degree of exposure to traumatic experience and methods to adapt to the stresses and the level of social support showed that there was high level of traumatic experienced by children Gaza Strip in border areas, as well as a high level of adaptation methods with stress, social support, and psychological toughness. Furthermore, Reavell et al. <sup>[18]</sup>, in a study examined the mediating role of social support in the relationship between emotional intelligence and PTSD symptoms. Participants included 443 trauma-exposed university students who completed online questionnaires. The results of this study indicated that social support mediates the relationship between emotional intelligence and reported PTSD symptoms. Thus, emotional intelligence is significantly associated with PTSD symptoms and social support may play an integral role in the relationship between emotional intelligence and PTSD. In a study of 315 middle school students in Lushan county six months after the Ya'an earthquake in China found that social support had significant direct association with post traumatic growth but not with PTSD, but social support had a negative indirect prediction on PTSD and a positive indirect prediction on post traumatic growth through cognitive reappraisal. Social support, through expressive suppression, had a significant and indirect prediction on PTSD, but a non-significant indirect prediction on post traumatic growth. Additionally, Reavell et al. <sup>[18]</sup> in a literature review of patterns of risk factors and effects of post-traumatic stress disorder (PTSD) and depression in refugee minors found o high incidences of PTSD and depression found in refugee minors and poorer mental health was correlated with increased exposure to violence. Factors such as social support and family security were important in reducing the rates of PTSD and depression, whereas the implications of age and gender were unclear. Long-term effects from these mental illnesses indicated scholastic issues, but no further worsening of symptoms.

#### **Family Support and PTSD**

The family systems theory has hardly been applied in trauma research, although researchers emphasize that the effects of trauma can be understood better through a family's typical coping efforts, adaptation styles and shared expression of pain than through focusing only on psychiatric distress and symptoms <sup>[19]</sup>. Family support is a style of work and a wide range of activities that strengthen positive informal social networks through community based programmes and services. Family support had been a protective factor for developing PTSD, Nickerson et al. <sup>[20]</sup> in study of 1132 trauma survivors initially assessed upon admission to one of four Level 1 trauma hospitals in Australia after experiencing a traumatic injury. Participants were followed up at 3 months, 12 months, 24 months and 6 years after the traumatic event. Latent difference score analyses revealed that greater severity of PTSD symptoms predicted subsequent increases in perceived negative social support at each time-point. Greater severity of PTSD symptoms predicted subsequent decreases in perceived positive social support between 3 and 12 months. High levels of perceived positive or negative social support did not predict subsequent changes in PTSD symptoms at any time-point.

This study aims to: 1) To identify the types and severity of trauma among adolescent in the Gaza Strip, 2) To find the prevalence the PTSD among adolescent, 3)To identify the types level of family and social support among adolescent, 4) To explore the relationship between trauma, PTSD, social and family support and other socio-demographic variables.

# METHOD

# Sample

The sample number was 400 adolescent of the total population, 200 (50%) of the participant were males, and 200 (50%) were females.

# Measures

The researcher will use five instruments to implement her study, socio-demographic characteristic questionnaire, Gaza traumatic events checklist, PTSD scale for DSM-IV, family support scale and social support scale.

#### Socio-demographic characteristic questionnaire

This questionnaire include educational level, Type of school, age, sex, Place of residence, number of family member, parents education, parents work, family income.

## Gaza traumatic events checklist (GTEC)<sup>[5]</sup>

The checklist consisting of 29 items covering three domains of events typical for the of military escalation: (1) Witnessing personally acts of violence (e.g. killing of relatives, home demolition, bombardment, and injuries); (2) Having experiences of loss, injury and destruction in family and other close persons; and (3) Being personally the target of violence (e.g., being shot, injured, or beaten by the soldiers). In checklist respondent were asked whether they had been exposed to each of these events: (0) no (1) yes. In this study, the Cronbach's alpha coefficient was high and acceptable 0.93.

## Posttraumatic stress disorder checklist – Arabic version<sup>[1,5]</sup>

This checklist contains 17 items adapted from the DSM-IV-TR PTSD symptom criteria. The 17 PTSD symptoms are rated by the participant for the previous month on a scale indicating the degree to which the respondent was bothered by a particular symptom from 1 (not at all) to 5 (extremely). Items can be categorized as follows: items 1-4, 17 are for criteria B (intrusive re-experiencing); items 5-11 are for criteria C (avoidance and numbness); and items 12-16 are for criteria D (hyperarousal). This scale was used in previous studies and showed high reliability and validity <sup>[1,5]</sup>. In this study, the Cronbach's alpha coefficient was high and acceptable 0.87.

# Social support scale- Arabic version [21]

Social support scale (SSS) contains 26 items and was designed to measure the three factors of social support. It contain three rank (11 items are support perceived from family and relatives, 10 items are Psychosocial support provided by friends, and 5 items are psychosocial support provided by the institutions). In checklist respondent were asked whether they had been exposed to each item: (1) never, (2) sometimes and (3) always. This scale was used previously in Gaza Strip and showed validity <sup>[21]</sup>. In this study, the Cronbach's alpha coefficient was high and acceptable 0.82.

# Family crisis oriented personal evaluation scale (f-copes) Arabic version [22]

The family crisis oriented personal evaluation scales (F-COPES) is a self-report measure used to assess family coping strategies <sup>[23]</sup>. The F-COPES was used in this study because coping as a construct deals with plans or actions that ameliorate the experience of stress. The scale is composed of 30 items to assess effective problem solving coping attitudes and behavior used by families in response to problems or difficulties, which result in five subscale scores and a total score. The five subscales are: (a) requesting for social support; (b) restructuring; (c) request for spiritual (religious) support; (d) positive evaluation; and (e) action of the family. A score is obtained for each subscale and the total score by summing the respondents score for each of the items. This scale had been used in Gaza Strip and Chronbach's alpha was  $\alpha$ =0.85 <sup>[22]</sup>. In this study, the Cronbach's alpha coefficient was high and acceptable 0.82.

#### **Study Procedure**

We selected the study sample by stratified random method, in which we prepared a list of number of student aged between 13-18 years from list of schools obtained from Ministry of Education with the name of schools and location. After the number of the sample determined from each area, the selected schools were contacted and informed about the purpose of the study and asked to give permission to collect the data from the student. Adolescents were selected from classes by using simple random sample. Approval of Ethical Helsinki committee was granted beside Ministry of Education. A prepared consent form was given to the adolescents and another formal consent from parents was obtained before conducting the data collection. Confidentiality of the data was ensured for the adolescents and their parents. Data collection was conducted by the first author and three trained data collectors. The data was collected inside the classes. The data collection was performed in August, 2016.

# **Statistical Analysis**

Data entry and analysis will use a Statistical Package for the Social Science (SPSS, Version 22). Frequency and percent were used to express quantitative data of type of traumatic experience, post-traumatic stress disorder, family and social support of adolescent. For continuous variables means and standard deviation were reported. For differences between means of two group's parametric test were used such as t-test to compare sex of adolescents and mean of trauma, PTSD, family support and social support. While, ANOVA tests were used for measuring differences between more than two groups of continuous variables such trauma and place of residence, PTSD and family support. The researcher was used least significant difference (LSD) test after one way ANOVA test, to explore further and compare the mean of one group with the mean of another. Pearson's correlation coefficient was used to test the association between traumatic experiences, PTSD, family support and social support. Stepwise multiple regression analyses for the severity PTSD was entered as dependent variable and each traumatic event as independent variables. Another Stepwise multiple regression analyses for the severity PTSD was entered as dependent variable and social support and social support. The severity PTSD was entered as dependent variable and each traumatic event as independent variables. Another Stepwise multiple regression analyses for the severity PTSD was entered as dependent variable and social support and family copings as independent variables. The 0.05 alpha levels was accepted as a sign for statistical significance for all the statistical procedures.

# RESULTS

# Socio Demographic Characteristics of the Sample

**Table 1** showed that the sample was 400 adolescents, 200 were boys (50.0%) and 200 were girls (50.0%). Regard place of residence, 17% of adolescents were from North Gaza, 45% live in Gaza area, 10% live in Middle area, 20% live in Khan Younis and 8% live in Rafah area. Also, regard number of the family member, 14.8% of the participating had Less than 3 members, 20.5% had 3-6 members and 64.8% had More than 6 members. Regard family monthly income, 56.8% of the families had a monthly income less than \$400, 20% between \$401-600, 13% had a monthly income \$601-900 and 10.3% had a monthly income more than \$901.

Item	No.	%
Sex		
Male	200	50
Female	200	50
Age in years (mean age=15.49 years, SD=1.71)		
Place of residence		
North Gaza	68	17
Gaza	180	45
Middle area	40	10
Khan Younis	80	20
Rafah area	32	8
Number of the family member		
Less than 3	59	14.8
04-Jun	82	20.5
7 and more	259	64.8
Family monthly income (NIS)		
Less than \$400	227	56.8
\$401-600	80	20

Table 1. Socio demographic characteristics of the sample (N=400).

\$601-900	52	13
\$901 and above	41	10.3

# **Frequency and Severity of Traumatic Events Checklist Scale**

The study showed that the most common traumatic experiences reported by adolescents were: Hearing shelling of the area by artillery (88.8%), Hearing the loud voice of Drones (81.3%), watching mutilated bodies in TV (71.8%) and Hearing killing of a friend (68.5%). While, the least common traumatic experiences were: Personal threat if killing by the army (28.3%) and Physical injury due to bombardment of your home (28.8%) **(Table 2)**.

Table 2. Frequency of traumatic events.

No.	Traumatic events			No	
		No	%	No	%
1	Hearing killing of a friend	274	68.5	126	31.5
2	Hearing killing of a close relative		53.3	187	46.8
3	Hearing shelling of the area by artillery	355	88.8	45	11.3
4	Hearing the loud voice of Drones	325	81.3	75	18.8
5	Witnessing killing of a friend	142	35.5	258	64.5
6	Witnessing killing of a close relative	134	33.5	266	66.5
7	Witnessing shooting of a friend	148	37	252	63
8	Witnessing shooting of a close relative	137	34.3	263	65.8
9	Witnessing firing by tanks and heavy artillery at own home	140	35	260	65
10	Witnessing firing by tanks and heavy artillery at neighbors' homes	198	49.5	202	50.5
11	Witnessing arrest of a close relative by the army		34.5	262	65.5
12	Witnessing arrest of a friend		40.5	238	59.5
13	Watching mutilated bodies in TV	287	71.8	113	28.3
14	Witnessing bombardment of bog buildings by rockets	220	55	180	45
15	Witnessing assassination of people by rockets	168	42	232	58
16	Physical injury due to bombardment of your home	115	28.8	285	71.3
17	Shot by bullets, rocket, or bombs	117	29.3	283	70.8
18	Deprivation from water or electricity during detention at home	152	38	248	62
19	Threaten by shooting	130	32.5	270	67.5
20	Destroying of your personal belongings during incursion	134	33.5	266	66.5
21	Personal threat if killing by the army	113	28.3	287	71.8
22	Threaten of killing of your closed relative in front of you	129	32.3	271	67.8
23	Threatened with death by being used as human shield by the army to move from one home to home	133	33.3	267	66.8
24	Being arrested during the land incursion	130	32.5	270	67.5
25	Forced to leave you home with family members due to shelling	172	43	228	57
26	Exposure to arrest during invasion	175	43.8	225	56.3

27	Inhalation of bad smells due to bombardment	243	60.8	157	39.3
28	Threaten by telephone to leave the home for bombardment of home	210	52.5	190	47.5
29	Receiving pamphlets from Airplane to leave your home at the border and to move to the city centers	158	39.5	242	60.5

#### **Severity of Traumatic Events**

In order to find the severity of the traumatic experiences, total traumatic events were recorded in to mild trauma "0-4 events", moderate trauma "5-10 events" and severe trauma "above 10 events" <sup>[5]</sup>. The results show that 45.0% reported mild traumatic events, 32.5% reported moderate traumatic events, and 22.5% reported severe traumatic events. Mean of traumatic experience was 12.19 (SD=7.96).

#### **Traumatic Experiences According to Socio-Demographic Variables**

The study showed that the mean of traumatic event in boys were 16.4 (SD=8.23) and 7.98 for girls (SD=4.89). There were statistically significant differences toward boys (t (400)=12.388, p=0.001). Post Hoc test using LSD test posteriori comparisons showed that individual who their age 16 years had more traumatic experience than younger age 13, 14, 15 years.

#### **Frequencies of Post-Traumatic Stress Disorder Symptoms**

The most common post traumatic reactions were: Efforts to avoid activities, places or people that arouse recollections of the trauma (16%), Efforts to avoid thoughts, feelings or conversations associated with the trauma (14.8%), Acting or feeling as if the traumatic event were recurring (12.3%), Exaggerated startle response (12%), Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event (11%).

#### Mean and Standard Deviation of the Post-Traumatic Stress Disorder Symptoms

The study showed that mean total scores of PTSD was 40.53 (SD 12.68), mean Intrusion symptoms was 12.64 (SD=4.25), mean avoidance was 15.81 (SD=5.45) and mean arousal was 12.08 (SD=5.19).

#### **Prevalence of Post-Traumatic Stress Disorder**

According to DSM-IV diagnostic criteria of PTSD (one re-experiencing, 3 avoidance and 2 arousal symptoms). The study showed that 133 of adolescents (33.3%) showed no PTSD, 130 of adolescents (32.5%) showed at least one criteria of PTSD (B or C or D), 100 showed partial PTSD (25%) and 37 of adolescents showed full criteria of PTSD (9.3%) **(Table 3)**.

PTSD	No.	%
No PTSD	133	33.3
One symptoms	130	32.5
Partial PTSD	100	25
Full PTSD	37	9.3

#### Table 3. Prevalence of PTSD symptoms.

#### Posttraumatic Stress Disorder Symptoms According to Socio-Demographic Variables

The study showed that there were statistically significant for all subscales (Intrusion symptoms, avoidance, and arousal) and in total PTSD scores (Mean 37.7 girls vs. 43.4 boys) (t=4.63, p=0.001), thus it can be concluded that there are differences in PTSD due to sex in favor of male. There were no differences in PTSD and subscales according to age and family monthly income.

#### **Frequency of Social Support**

The most common social support the adolescents received were: my family members being with me when I need them (75%), my family give me advice when I need (68.5%) and my family helps me to overcome the problems that I face (68%).

# Mean and Standard Deviation of the Social Support

Mean total scores of social support was 83.98 (SD =16.199), mean support perceived from family and relatives was 34.87 (SD=7.592) mean psychosocial support provided by friends was 33.690 (SD=6.764) and mean psychosocial support provided by the institutions was 15.407 (SD=3.612) (Table 4).

## Table 4. Means and standard deviations of social support.

Social support scale	Mean	SD
Total social support	83.98	16.19
Support perceived from family and relatives	34.87	7.59
Psychosocial support provided by friends	33.69	6.76
Psychosocial support provided by Non-Governmental Organizations	15.407	3.61

# Social Support According to Socio-Demographic Variables

There were no statistically significant differences in social support according to adolescents sex, in total social support (t (400)=-1.50, p=0.13). Post Hoc test using LSD test posteriori comparisons showed that adolescents aged 13 years had less total social support than the older group (F (5, 400)=2.59, p=0.02). There were no differences in social support according to family monthly income (F (5, 400)=0.85, p=0.48).

# **Frequency of Family Support Items**

The most common family support reported by adolescents were: We share our relatives difficulties (59.1%), ask for encouragement and support from friends (60.3%), face the problems and trying to find solutions to them immediately (56.8%) and watch Television (54.4%).

## Mean and Standard Deviation of the Family Support

The study showed that mean total family coping was 97.33 (SD=18.9), acquiring social support was 28.62 (SD=6.49), reframing was 26.18 (SD=6.07), seeking spiritual support was 14.26 (SD=2.82), mobilizing family to acquire and accept help was 12.48 (SD=3.13), positive appraisal was 12.75 (SD=3.15) (Table 5).

Family Oriented Coping Scale	Mean	SD
Total family coping	97.33	18.9
Acquiring social support	28.62	6.49
Reframing	26.18	6.07
Seeking spiritual support	14.26	2.82
Mobilizing family to acquire and accept help	12.48	3.13
Positive appraisal	12.75	3.15

#### Table 5. Mean and standard deviation of family support.

#### **Family Support According to Socio-Demographic Factors**

The study showed no sex differences in family coping and subscales. Post hoc test showed that children aged 17 years had more family coping than younger and older age children (F (5, 400)=2.35, p=0.04), reframing was also more in adolescents aged 17 years than the other groups (F(5, 400)=2.87, p=0.01), and Positive appraisal was also more in adolescents aged 17 years than the other groups (F(5, 400)=3.06, p=0.01).

#### **Relationships between Traumatic Events, PTSD Symptoms, Social and Family Support**

Pearson correlation coefficient test was done. The result showed that there was positive correlation with statistical significance between traumatic events experience and PTSD (r(400)=0.36, p<0.001), intrusion (r(400)=0.30, p<0.001), avoidance (r(400)=0.33, p<0.001). While total traumatic events was correlated with family coping (r(400)=-0.11,

p<0.01) and social support (r (400)=-0.11, p<0.01). There were positive correlation between PTSD and social support(r (400)=0.12, p<0.01) and family support (r (400)=0.10, p<0.01) (Table 6).

 Table 6. Pearson correlation coefficient to study the relation between PTSD, traumatic events, social support and family support, \*p<0.05, \*\*p<0.01, \*\*\*p<0.00.</th>

	Total Trauma	PTSD total score	Intrusion	Avoidance	Arousal
Total Trauma					
PTSD total score	0.36**				
Intrusion	0.30**	0.79**			
Avoidance	0.33**	0.88**	0.54**		
Arousal	0.28**	0.87**	0.54**	0.66**	
Family coping	-0.11-*	0.10*	0.1	0.06	0.10*
Total social support	-0.11-*	0.12*	0.13*	0.08	0.12*

# **Prediction of PTSD by Traumatic Events**

In a multivariate regression model, each traumatic event, were entered as an independent variables and PTSD as dependent variable. Beating and humiliation by the army was predicting PTSD: Forced to leave you home with family members due to shelling ( $\beta$ =0.19, t (400), p<0.001)Hearing the death of your a friend or neighbor during the war ( $\beta$ =0.16, t (400),p<0.001) exposure to the threat to leave the home in the border areas and to go to the city center via leaflets from planes ( $\beta$ =0.11, t (400), p<0.02), witnessing your home demolished, and destroying by shelling or bulldozers ( $\beta$ =0.10, t (400), p<0.04), R2=0.17, F (1, 400)=20.16, p<0.001 (Table 7).

Table 7. Multivariate regression model of each traumatic event with total PTSD.

	Unstandard Coefficients		Standardized Coefficients	t		95.0% Confide for B	ence Interval
	В	Std. Error	Beta	Lower Bound	Sig.	Upper Bound	
(Constant)	33.136	1.097		30.193	0.001	30.978	35.294
Forced to leave you home with family members due to shelling	5.089	1.385	0.199	3.674	0.001	2.366	7.812
Hearing the death of your a friend or neighbor during the war	4.416	1.325	0.162	3.332	0.001	1.81	7.021
Exposure to the threat to leave the home in the border areas and to go to the city center via leaflets from planes	3.001	1.324	0.116	2.266	0.024	0.398	5.605
witnessing your home demolished, and destroying by shelling or bulldozers	2.836	1.395	0.107	2.034	0.043	0.095	5.578

# **Prediction of PTSD by Family Coping**

In a multivariate regression model, total family coping and subscales were entered as independent variables, with total PTSD as the dependent variable. Mobilizing family to acquire and accept help was significantly positively predicting PTSD ( $\beta$ =-0.13, t (400), p<0.01) R2=0.17, F (1, 400)=6.71, p<0.01 (Table 8).

Table 8.	Multivariate	regression	model o	of family	coping	and PTSD.
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		Standardized Coefficients	t	Sig.	95.0% Confidence B	e Interval for
В	Std. Error	Beta			Lower Bound	Upper Bound

(Constant)	34.012	2.593		13.119	0	28.916	39.109
Mobilizing family to acquire and accept help	0.522	0.202	0.129	2.59	0.01	0.126	0.918

# Prediction of PTSD by Social Support

In a multivariate regression model, total social support and subscales were entered as independent variables, with total PTSD as the dependent variable. Psychosocial support provided by Non-Governmental Organizations was predicting PTSD ( $\beta$ =-0.16, t (400), p<0.01) R2=0.14, F (1, 400)=8.9, p<0.003 (Table 9).

	Unstandard Coefficient		Standardized Coefficients	t		95.0% Confidence Interval for B	
	в	Std. Error	Beta	Lower Bound	Sig.	Upper Bound	
(Constant)	32.487	2.753		11.802	0	27.076	37.899
Psychosocial support provided by Non- Governmental Organizations	0.522	0.174	0.149	3	0.003	0.18	0.864

Table 9. Multivariate regression model of family support with total PTSD.

# DISCUSSION

This study results showed that Palestinian adolescents exposed to war on 2014 reported commonly hearing shelling of the area by artillery (88.8%), hearing the loud voice of Drones motor (81.3%), watching mutilated bodies in TV (71.8%) and hearing killing of a friend (68.5%). Similarly, Abu Nada et al. <sup>[24]</sup> in study of children in Gaza found that the children commonly reported witnessing bombardments (85) and watching TV (95%). Such types of traumatic events had been reported by children and adolescents in Gaza Strip, Thabet et al. <sup>[6]</sup> in study of Palestinian children showed that (90.8%) of children reported watching mutilated bodies on TV. Similarly, Thabet et al. <sup>[7]</sup> in another study reported that the most commonly reported traumatic events were: watching mutilated bodies and wounded people in TV (92.3%) and hearing shelling of the area by artillery (89.4%). Additionally, Ghannam et al. <sup>[25]</sup> in study of adolescents in Gaza Strip showed that the most common reported traumatic event were hearing shelling of the area by artillery (96.25%), watching mutilated bodies in TV (95.25%) and hearing the loud voice of drones motors (92%).

This study showed that mean traumatic experience reported by adolescents was 12.19. Boys reported more traumatic events than girls. Such findings were consistent with Thabet et al. <sup>[6]</sup> study which showed that the mean traumatic events reported by adolescents was 13.34. Additionally, Thabet et al. <sup>[7]</sup>, report that the mean number of traumatic events reported by Palestinian adolescents was 14. While, Abu Nada et al. <sup>[24]</sup>, reported that number of traumatic events reported by the adolescents was 9.9. Furthermore, Khamis <sup>[21]</sup> in another study reported that a substantial number of children experienced at least one lifetime trauma (54.7%) and Al Kurd <sup>[26]</sup>, study showed that percentage of trauma was (61.5%) and Thabet et al. <sup>[6]</sup>, study showed that children reported many traumatic events (mean=4). But a study in New Zealand, showed that 61% of the sample experienced trauma events in their lifetime, with 9% experiencing events in the past year <sup>[27]</sup>. The study showed that there were statistically significant differences in number of traumatic events toward boys. These findings were consistent with Thabet et al. <sup>[6,7]</sup> study which showed that boys reported more traumatic events than girls.

Our study showed that the most common post traumatic reactions were: efforts to avoid activities, places, or people that arouse recollections of the trauma (16%), efforts to avoid thoughts, feelings, or conversations associated with the trauma (14.8), acting or feeling as if the traumatic event were recurring (12.3), exaggerated startle response (12%), intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event (11%). Qeshta <sup>[28]</sup>, study showed that the most common post traumatic reactions in adolescents were: recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions (49%), acting or feeling as if the traumatic event were recurring (44.8%), intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event (34.8%). Also, Al Ibwaini <sup>[29]</sup>, reported that the most common post traumatic reactions in adolescents were: recurrent and intrusive distressing recollections of the event, including images, thoughts or perceptions (43.6%), exaggerated startle response (41.4%), acting or feeling as if the traumatic event were recurring (40.7%), efforts to avoid activities, places, or people that arouse recollections of the traumatic (40.2%), and efforts to avoid thoughts, feelings, or conversations associated with the trauma (40%). While, Al Kurd <sup>[26]</sup> study showed that the most common symptoms were: being upset by something which reminded (67.24%). Then, fell as though the event was re-occurring 65.62%.

The study showed that 25% reported partial PTSD, and 9.3% reported full criteria of PTSD. Such prevalence rate of PTSD was less than found in study of Thabet et al. <sup>[6]</sup>, which showed that 35.1% reported partial PTSD and 37.6% reported full criteria of PTSD. Rate of PTSD in this study was less than found in study of Qeshta <sup>[28]</sup>, study which showed that 16.4% of children showed full criteria of PTSD Additionally, Al Ibwaini's <sup>[29]</sup> study reported that 19.1% of adolescents showed full criteria of PTSD. While Thabet <sup>[5]</sup>, study showed that 12.4% of the children and adolescents reported probable PTSD. While, Khamis <sup>[21]</sup>, study showed that PTSD was diagnosed in 34.1% of the children, and most of whom were refugees?

The study showed that males had reported more PTSD, intrusion, avoidance, and arousal symptoms. Such findings were inconsistent with study of Qeshta <sup>[28]</sup> which showed no statistically significant differences in total PTSD scores according to gender. But our study was consistent with findings of Thabet et al. <sup>[6]</sup> which showed that girls reported more PTSD than boys. Additionally, Nooner et al. <sup>[12]</sup> showed that the adolescent females are twice as likely to develop PTSD following a significant trauma than males.

The study showed that the most common social support the adolescents get was: support perceived from family and relatives were: family members being with them when they need them (75%), family give them advice when they need (68.5%) and my family helps them to overcome the problems that they face (68%). Mean support perceived from family and relatives was 34.87, mean psychosocial support provided by friends was 33.69 and mean psychosocial support provided by the institutions was 15.407 and mean of total score of social support scale was 83.93, it indicated adolescents in the Gaza Strip have social support with high degree. The study showed that there were statistically significance differences in social support according to age, which their age (13) years had social support less than those with older age 15-18 years. That findings were inconsistent with Al Kurd <sup>[26]</sup>, study which showed that there were no statistically significance differences in social support according to age of children. Our study showed that there were no statistically significance differences in social support according to gender. This was consistent with AI Kurd <sup>[26]</sup>, study showed that there were no statistically significance differences in social support according to sex. Moreover, Brookmeyer et al. <sup>[30]</sup> in a study showed that girls reported more social support from parents, friends, and school. But Ouda's <sup>[17]</sup> study found that there were differences in social support in favor of females. The study found that the most common family support were: We share our relatives difficulties (59.1%), ask for encouragement and support from friends (60.3%). face the problems and trying to find solutions to them immediately (56.8%) and watch Television (54.4%). The study showed that mean total family coping was 97.33, acquiring social support was 28.62, reframing was 26.18, seeking spiritual support was 14.26, mobilizing family to acquire and accept help was 12.48, positive appraisal was 12.75.

The study found that there were statistically significant differences in family support according to age; it found that the study sample individual that their age (13) years saw that family support less in adolescents aged (15-18 years). This was inconsistent with AI Kurd <sup>[26]</sup> study which showed that there were no statistically significance differences in family support according to age. The study found that there were no statistically significant differences in family support according to sex, to number of family member and family monthly income. While, AI Kurd <sup>[26]</sup> showed that there were no statistically significance differences in family support according to sex, number of family members, and family norme.

The study found that there was significant correlation between total traumatic events total PTSD among the adolescents of the study sample. This consistent with Thabet et al.'s <sup>[6]</sup>, study showed that there was significant association between exposure to traumatic events and developing PTSD. And Qeshta's <sup>[28]</sup> study showed that there was significant correlation between total traumatic events reported by children and total PTSD, re-experiencing, avoidance, and arousal. This means that traumatic experiences lead to post traumatic stress disorder. Also, Bensimon <sup>[31]</sup> showed that trauma increased PTSD and growth levels. Another study by AI Ibwaini <sup>[29]</sup> showed that there was significant correlation between total traumatic events reported by adolescents and total PTSD, re-experiencing, avoidance and arousal. Nooner et al. <sup>[12]</sup> reported that trauma is associated with more shame and deviance, is associated with higher rates of PTSD, and rates of traumatic exposure peak in adolescence compared to adulthood, which is associated with correspondingly higher rates of PTSD. Al Kurd<sup>[26]</sup> reported that when the trauma is increased the symptoms of PTSD will increased. But, the study found that there was no correlation between traumatic events experience and the social support for adolescents of the study sample. This consistent with Thabet <sup>[5]</sup> showed that trauma was negatively correlated with social support and wishful thinking, and positively correlated with self-criticism. But, Thabet <sup>[5]</sup> showed that adolescents experienced traumatic experiences developed less social support and Ouda <sup>[17]</sup> showed that there was a positive correlation between the positive experience of traumatic and all methods of adaptation with stress, social support, and psychological toughness. Also, Nooner et al. <sup>[12]</sup> reported that adolescents with less social support are more likely to experience trauma and develop PTSD. Also, the study found that there was significant correlation between traumatic events experience and the family support. The study found that there was significant correlation between PTSD and social support of adolescents in the Gaza Strip. This consistent with Thabet <sup>[5]</sup> reported that adolescents with PTSD had coping by ventilating feelings, developing social support, however Nooner et al. <sup>[12]</sup> showed that the adolescents with less social support are more likely to experience trauma and develop PTSD, also Scarpa et al. <sup>[32]</sup> showed that low perceived social support from family and friends significantly predicted increased PTSD scores. Until, Araya et al. <sup>[33]</sup> reported that coping strategies and perceived social support influenced mental distress and quality of life directly. The study found that there was significant correlation between PTSD and family support of adolescents. This consistent with Thabet <sup>[5]</sup> reported that adolescents with less PTSD had looking more for solving his family problems, also Scarpa et al. <sup>[32]</sup> reported that low perceived social support from family and friends significantly predicted increased PTSD scores. Also, the study found that there was significant correlation between social support and family support. This consistent with Al Kurd <sup>[26]</sup> showed that positive correlation between family support and social support, it means when the social support increased the family support increased. Our study results were consistent with those studies that demonstrated the correlation between exposed to trauma, PTSD symptoms, social and family support. Exposed to trauma increase the possibility to develop PTSD, also the family and social support associated positively with PTSD (higher rates of PTSD associated with high rates of family and social support).

# **CLINICAL IMPLICATIONS**

According to the results, there was a high prevalence of traumatic experiences, which affect the adolescents badly, so the researcher recommends restriction of TV programs that display a violence and war reports through cooperation with the ministry of information. Purposefully selected programs by parents or caretakers are good for children and adolescents. It is necessary to provide therapeutic interventions and protective interventions for adolescents exposed traumatic events. Generation counseling department in every school and the staff mission is to give lessons that talk about the psychological problems associated with the trauma. Train courses for mental health workers by Ministry of Health to focus on mental health services that can help affected adolescents must be established. Non-governmental organizations should do modification of their programs and plans which meet all generations and families and cover all levels of community. Also, we have to increases the community institutions which provide social support. Generation counseling department in every school and the staff mission is to give lessons that talk about the psychological problems associated with the trauma. Those counselors work to educate and train students on how to deal with these conditions before, after and during the trauma. To establish supportive and therapeutic programs that encouraged affected adolescents to share their feelings and thoughts, and to provide the appropriate therapy to them (by cooperation with ministry of education and ministry of health). Train good mental health workers by Ministry of Health to focus on mental health services that can help affected adolescents to share their feelings and thoughts, and to provide the appropriate therapy to them (by cooperation with ministry of education and ministry of health). Train good mental health workers by Ministry of Health to focus on mental health services that can help affected adolescents

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