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Research Article

Prevalence of PTSD, Depression, and Anxiety Among Orphaned Children in the Gaza Strip

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Abstract

This study aimed to find the prevalence rate of PTSD, anxiety and depression among orphaned children in Gaza Strip. The study sample consisted of 81 orphaned children from Al-Amal Institute for Orphans. We used descriptive, analytical, and for data collection we used sociodemographic sheet; Revised Child Post Traumatic Disorder Index, The Revised Children's Manifest Anxiety Scale, and Birleson Depression Self-Rating Scale for Children (BDSRS).

The minimum age was 9 years and the maximum age was 18 years, Mean = 13.34 years. The mean post-traumatic stress disorder was 35.79, intrusion symptoms was 19.77, avoidance symptoms was 14.30 and mean arousal symptoms was 13.65, 55.6% of orphaned children showed moderate and 34.6% showed severe PTSD. Girls reported significantly more PTSD, avoidance, and arousal symptoms than boys. A child living in a city had more PTSD than those children live in a camp or a village. The study showed that 67.9% showed depression. Depression was more in children from north Gaza had more depression than those coming from the other four areas of the Gaza Strip. The results showed that 30.9% of children rated as anxiety cases. Children 13 - 15 years old had more anxiety than those younger and older age than them and children coming from north Gaza had more anxiety than those coming from the other four areas of the Gaza Strip. The result showed that there was positive correlation with statistical significance between depression and anxiety, intrusion, and avoidance. While total depression was negatively correlated with arousal symptoms of PTSD. Anxiety was negatively correlated with PTSD and avoidance symptoms of PTSD.

Clinical Implications: The study concluded that orphaned children have a considerable level of PTSD, anxiety and depression, which raised the need for more attention from governmental and Non-governmental institutions towards finding therapeutic programs for the orphans to enable them to live and be functional and productive in the future.

Keywords: *Orphaned Children; PTSD; Anxiety; Depression; Gaza Strip*

Introduction

The loss of parents during childhood, also referred to as orphanhood in the present study, has generally been considered as stressful and is deemed a risk factor for poor mental health in children [1]. UNICEF [2] estimates that 151 million orphans exist worldwide, of

which at least 8 million languish in institutions, with little possibility of family reunification or legal permanency via the mechanism of adoption [3]. In war zones like Gaza Strip, many children become orphans due to repeated wars or are otherwise separated from their families. Wanting to help, Non-governmental association may set up orphanages or homes to support orphaned or separated children. Unfortunately, this often has negative consequences on their physical and mental health. In war zones, most of the children who live in orphanages have a living parent [4]. Although children frequently get placed in orphanages by parents who face significant economic pressure, this action deprives children of the family care that has been shown consistently to be one of the strongest supports for children's well-being [4-6]. Extensive research has indicated that most orphanages or group homes are substandard environments that fail to provide the stimulation, social integration, or access to necessities that fulfill children's rights [5]. Efforts to improve the quality of such environments may unintentionally continue the separation of children from their families.

Orphaned youth have been regarded as a vulnerable population in need of care and protection. In particular, children orphaned are associated with psychosocial challenges and mental health risks, as compared to other orphaned and non-orphaned youth. Thienkrua., *et al.* [7] tied to assess trauma experiences and the prevalence of symptoms of posttraumatic stress disorder (PTSD) and depression among children in tsunami-affected provinces in southern Thailand. The results showed that the prevalence rates of PTSD symptoms were 13% among children living in camps, 11% among children from affected villages, and 6% among children from unaffected villages (camps vs unaffected villages,); for depression symptoms, the prevalence rates were 11%, 5%, and 8%, respectively. Thabet., *et al.* [8] in study of orphaned children in similar setting showed that out of the 112 children who completed the questionnaires, 55 (49.0%) reported depression, 32 (28.5%) reported above the RCMAS (anxiety) cut-off, and 44 children (39.3%) scored within the severe spectrum of the CPTSD-RI (post-traumatic stress) range. A study by Cluver., *et al.* (2007) examined the mental health of over 900 children who were matched in three comparison groups: those orphaned due to AIDS, those orphaned from other causes, and non-orphaned children. Results showed those orphaned due to AIDS had significantly higher levels of depression, anxiety, and posttraumatic stress (PTS) symptoms compared to the other groups. Longitudinal follow-up in Findings from Cluver and Orkin [9] revealed that the prevalence of depression was higher for HIV orphans than other groups in South Africa, while stigma, bullying, abuse, violence, and food insecurity increased likelihood for anxiety, PTSD, and depression for HIV orphans. Longitudinal follow-up in 2009 showed significantly worse mental health among those orphaned due to AIDS, compared to the other groups [9]. Due to persistent mental health problems among these youths orphaned due to AIDS. Moreover, Whetten., *et al.* [10] examined rates of potentially traumatic events and associated anxiety and emotional/behavioral difficulties among 1,258 orphaned and abandoned children in 5 low- and middle-income countries. This study intended to help policy makers and care providers recognize that (a) children and caregivers are willing to report experiences of potentially traumatic events, (b) those who report such events are at higher risk for experiencing additional events, (c) resulting symptomatology indicates a need for appropriate mental health services, and (d) boys are as vulnerable as girls, indicating an equal need for protection. In a study about Depression among AIDS-orphaned children higher than among other orphaned children in southern India, Kumar., *et al*. [11] concluded that MCA analysis showed being a child orphaned by AIDS had the highest effect on the intensity of depression (Beta = 0.473). Children orphaned by AIDS had significantly higher depressive symptoms than the other orphaned children. Similarly, Yendork and Somhlaba [12] in study of a sample of 200 participants aged between 7 and 17 years, with 100 being orphaned children placed in four orphanages (experimental group) and 100 non-orphans from two public schools in Accra, Ghana (control group). The prevalence of anxiety symptoms in the orphaned children was 75%. For the non-orphaned group, 11% were anxious. Regarding the symptoms of depression in the orphaned group, the results show that 41% of the orphaned children were mildly-to-severely depressed. For the non-orphaned group, 40% of the non-orphaned children were mildly-to severely depressed. Moreover, Gearing., *et al.* [13] in a study examined the prevalence and correlates of depression, posttraumatic stress disorder (PTSD), and suicidality of youth in institutional care in Jordan. Institutionalized youth endorsed high rates of mental illness (45% depression, 24% PTSD, 17% depression/PTSD, 27% suicidality). Similarly, Derivois., *et al.* [14] in study of a sample of 128 street children survivors of the 2010 earthquake in Haiti, (120 boys and 8 girls), aged from 7 to 18, with an average age of 13.88 (SD = 2.15), and living on the streets of Port-au-Prince. The prevalence of severe symptoms of PTSD was 14.94%, as against 13.28% for symptoms of anxiety and 29.69% for symptoms of depression.

Aim of the Study

Our study aimed to explore the prevalence of PTSD, depression and anxiety and relationship to other sociodemographic variables of orphaned children in the Gaza Strip.

Method

Setting and participants

The orphanage (El-Amal orphanage) is one of two orphanages based in Gaza Strip, and had a total 90 resident children between the age of 9 and 16 years. This orphanage is registered as Non-governmental organization run by local donations, and non-statutory (local and international) organizations. Large-size families who find it difficult to cope after the loss of one parent (usually the father) may approach orphanage for one or two of their children to be admitted. Children can retain contact with the remaining parent and relatives, and return home during school holidays. They can also be visited at the orphanage, to retain links with their natural extended family.

The sample consisted of all children attending the orphanage institute (El-Amal Institute) in Gaza city (N = 81). The total number of boys was 38 (46.9%); number of girls was 43 (53.1%). The minimum age was 9 years and the maximum age was 18 years, mean age = 13.34 years (SD = 2.17).

Measures

Socio-demographic information form

Data were obtained from the records of each child in institute. The questionnaire was designed to capture basic socio-demographic information. This included information on the socio-demographic background of the children such as age, gender, age at first admission to the facility, contact with parents or relatives during care, information regarding siblings in the same or other institutions, and reason for admission.

Children Post Traumatic Stress Reaction Index "CPTSD-RI" scale: Pynoos, Frederick and Nader (1987) [15]

This standardised 20-item self-report measure was designed to assess post-traumatic stress reactions of children aged 6 - 16 years following exposure to a broad range of traumatic events [15]. It includes three subscales, Intrusion (7 items), Avoidance (5 items) and Arousal (5 items), and three additional items. The scale has been found valid in detecting the likelihood of PTSD. Items are rated on a 0 - 4 scale, and the range of total CPTSD-RI scores is between 0 - 80. Scores are classified as 'mild PTSD reaction' (total score 12 - 24), 'moderate' (25 - 39), 'severe' (40 - 59), and 'very severe reaction' (above 60). The CPTSD-RI used in this study was based on DSM-IIIR criteria, rather than another PTSD instrument based on DSM-IV criteria, as the CPTSD-RI had already been validated in the Arab culture [16,17]. In this study, internal consistency for using Cronbach's Alpha was high ($\alpha = 0.76$); the split half reliability of the scale was = 0.70.

Revised Children's Manifest Anxiety Scale (RCMAS): Reynolds and Richmond (1978, 1997) [18,19]

The RCMAS is a standardised 37-item self-report questionnaire for children of 6 - 19 years of age. It measures the presence or absence of anxiety-related symptoms (yes/no answers) in 28 anxiety items and 9 lie items. Factor analysis of the anxiety items has identified three factors: physiological, worry over sensitivity and concentration. A cut-off total score of 18 has been found to predict the presence of anxiety disorder [17,20,21]. In this study, internal consistency for using Cronbach's Alpha was high ($\alpha = 0.84$); the split half reliability of the scale was = 0.79.

Depression Self-Rating Scale for Children (DSRS) Birleson, 1981 [22]

This scale was developed to assess degree of depression in children and youths. The scale comprises 18 items, and is scored on a three-point scale: "mostly", "sometimes" and "never", with 8 items reversed. The sum score ranges from 0 to 36. The clinical cut-off score

for depression has been set to 15 [23]. DSRS has been reported to have good internal consistency [22]. A cut-off total score of 18 has been found to predict the presence of depression disorder [21,24]. In this study, internal consistency for using Cronbach's Alpha was high (α = 0.73); the split half reliability of the scale was = 0.70.

Study procedure

Permission of the Ministry of Social Welfare and Al Amal Association to approach the orphanages managers was granted. The study was approved by the local Helsinki research ethics committee. When the unit manager agreed, orphanage staff were approached, and were informed of the aims of the study. These were subsequently explained to the children, and consent was sought from both the key worker and the child. Data collection was undertaken by the second author. Children were interviewed at the institution, and potentially difficult questionnaire items were explained to them. Arrangements were made for children to access counseling and mental health support, if needed, and to opt out of the study at any stage. The caregivers also completed one of the questionnaires. The data was collected over a two-week period. Nine children, did not take part, leaving a sample of 81 children who completed the mental health measures. The data was collected in August 2017.

Statistical analyses

Statistical analyses were carried out using IBM SPSS Statistics version 20.0. The PTSD, anxiety depression of children was exhibited using the mean values, and SD. Chi Square for categorical variables was used, T- independent test, ANOVA tests for between-group comparison of continuous variables. Spearman's correlation coefficient tested the association between PTSD, anxiety depression of children. A series of linear regression analysis were conducted to find the predictor factors in sociodemographic variables of orphaned children of PTSD, depression, and anxiety. A two-tailed p value < 0.05 was considered statistically significant.

Sociodemographic characteristics of the study sample

As shown in table 1, the total number of the children selected for the current study was 81 children. The total number of boys was 38 (46.9%); the total number of girls was 43 (53.1%). The minimum age was 9 years and the maximum age was 18 years, Mean = 13.34 years, SD = 2.17. Age of children when they entered the orphanage was 5 years, mean = 8.23 years, SD = 2.42. Regarding area of residence, 19 children (23.5%) were from North Gaza, 43 children were from Gaza (53.1%), 4 children (4.9%)were from middle area, 3 children (3.7 %) were from Khan Younis, and 12 children (14.8 %). were from Rafah, 74 of children live in city (91.4%), 4 of children live in village (4.9%), and 3 in a camp (3.7%). As shown in 29 father of children were normal death (35.8%), 15 father of children were chronic disease (18.5%), 24 father of children were road traffic accident (6.1%), and 13 father of children were martyrs (16%).

	N	%
Gender		
Boy	38	46.9
Girl	43	53.1
	13.34	2.17
Place of residence		
North Gaza	19	23.5
Gaza	43	53.1
Middle area	4	4.9
Khan Younis	3	3.7
Rafah	12	14.8
Type of residence		
City	74	91.4
Village	4	4.9
Camp	3	3.7
Place of living		
With mother	61	75.3
Relatives	5	6.2
Grandmother	4	4.9
Others	11	13.6
Mother Education	6	7.4
Illiterate	12	14.8
Primary	23	28.4
Elementary	29	35.8
Secondary	10	12.3
Diploma	1	1.2
University		
Mother job	76	93.8
House wife	1	1.2
Civil employee	3	3.7
Worker		
Cause of father absence		
Normal death	29	35.8
Chronic disease	15	18.5
Road traffic accident	24	29.6
Martyrs	13	16

Table 1: *Sociodemographic characteristics of the study sample.*

Prevalence of PTSD

Using CPTSD-RI, the mean post-traumatic stress disorder was 35.79 (SD = 9.23), mean intrusion symptoms was 19.77 (SD = 3.9), mean avoidance symptoms was 14.30 (SD = 3.11) and mean arousal symptoms was 13.65 (SD = 2.58). As shown in table 2; one child showed no PTSD (1.2%), 7 showed mild (8.6%), 45 showed moderate (55.6%), and 28 showed severe PTSD (34.6%), and no one showed very severe PTSD.

Cases of PTSD	N	%
No PTSD (0 - 12 score)	1	1.2
Mild (13 - 24 score)	7	8.6
Moderate (25 - 39 score)	45	55.6
Severe (40 - 59 score)	28	34.6

Table 2: *PTSD in orphaned children.*

Sociodemographic variables and PTSD in orphaned children

In order to find differences in PTSD and subscales according to sex of children, independent t test was done. Girls reported significantly more PTSD than boys (37.79 vs 33.53) (t (79) = 2.12, p = 0.04), avoidance symptoms were significantly more in girls than boys (15.26 vs. 13.24) (t = (79) 3.06, p = 0.001), and arousal symptoms were more in girls (14.28 vs. 12.95) (t = (79) 2.83, p = 0.02). There no sex differences in reporting intrusion symptoms.

	Sex	Mean	SD	t	df	p
CPOTSD-Total 20 items	Boy	33.53	10.72	-2.12-	79.00	0.04
	Girl	37.79	7.24			
Intrusion	Boy	19.16	4.65	-1.34-	79.00	0.18
	Girl	20.33	3.09			
Avoidance	Boy	13.24	3.32	-3.06-	79.00	0.001
	Girl	15.26	2.60			
Arousal	Boy	12.95	2.64	-2.38-	79.00	.020
	Girl	14.28	2.39			

Table 3: *Sex differences and PTSD in orphaned children.*

Another A One Way ANOVA tests were performed in which the total PTSD and subscales (intrusion, avoidance, and arousal) were entered as the independent variable as well as other sociodemographic variables such as age (9 - 12, 13 - 15, 16 - 18 years), cause of fathers absence, mothers education and Job. Post Hoc test showed that there were no statistically significant differences in total PTSD and age group of children, place of residence, number of siblings outside the institute, or mother's education. However, Post hoc test showed that children living in a city had more PTSD than those children live in a camp or a village (F (2,80) = 9.48, p = 0.002).

Prevalence of depression in orphaned children

As shown in table 4; 55 children rated as depression used 17 and above cut-off point for Depression Self-Rating Scale for Children (DSBR) (67.9%) and 26 of children showed no depression (32.1%).

	N	%
Not Depressed	26	32.1
Depressed	55	67.9
Total	81	100

Table 4: *Prevalence of depression in orphaned children (N = 81).*

Sociodemographic variables and depression in orphaned children

Mean depression symptoms in children was ranged from 0 - 34, mean depression was 19.83 (SD = 4.18). Mean depression in boys was 19.05 (SD = 4.42) and 18.65 for girls (SD = 4.01). The results showed that no statistical significant differences in depression according to children gender. Depression was more in children from north Gaza had more depression than those coming from the other four areas of the Gaza Strip (F (4,80) = 2.49, p = 0.05). No significant differences in depression and place of residence, age of children, cause of fathers.

Prevalence of anxiety disorder in orphaned children

The results showed that 25 of children rated as anxiety cases (cut-off -19 for RCMAS) (30.9%) and 56 of children had no anxiety (69.1%).

	No	%
No anxiety	56	69.1
Anxiety	25	30.9

Table 5: *Prevalence of anxiety disorder in orphaned children.*

Sociodemographic variables and anxiety in orphaned children

Mean anxiety symptoms in children was ranged from 0 - 28, Mean anxiety was 15.70 (SD = 5.30). Mean anxiety in boys was 15.39 (SD = 5.92) and 15.79 for girls (SD = 4.01). The results showed that no statistical significant differences in anxiety according to children gender. Post hoc test showed that children age 13-15 years had more anxiety than those younger and older age than them (F (4,80) = 2.49, p = 0.05). Children coming from north Gaza had more anxiety than those coming from the other four areas of the Gaza Strip (F (4,80) = 2.49, p = 0.05). No significant differences in anxiety and place of residence cause of father's absence, mothers education, and number of siblings.

Relationships between PTSD symptoms, depression and anxiety

Pearson correlation coefficient test was done. The result showed that there was positive correlation with statistical significance between depression and anxiety (r (80) = 0.36, p < 0.001), intrusion (r (400) = 0.30, p < 0.001), avoidance (r (400) = 0.33, p < 0.001). While total depression was negatively correlated with arousal symptoms of PTSD (r (80) = -0.25, p < 0.001). Anxiety was negatively correlated with PTSD (r (80) = -0.23, p < 0.001) and avoidance symptoms of PTSD (r (80) = -0.24, p < 0.001).

	1	2	3	4	5
1. Depression	1				
2. Anxiety	0.36**	1			
3. PTSD	-0.09-	-0.23-*	1		
4. Intrusion	0	-0.20-	0.90**	1	
5. Avoidance	-0.02-	-0.24-*	0.78**	0.59**	1
6. Arousal	-0.25-*	-0.08-	0.71**	0.51**	0.41**

Table 6: *Pearson correlation coefficient to study the relation between PTSD, anxiety, and depression in orphaned children.*

Prediction of PTSD, anxiety, and depression of children was tested by series of stepwise multiple linear regression analyses was conducted, with each child PTSD, depression, and anxiety as the dependent variable, and sociodemographic variables such as sex, age, place of residence, cause of fathers absence, etc. as the independent and predictor factors.

Prediction of child's PTSD by children sociodemographic variables

In a multivariate regression model, total PTSD scores was entered as dependent variable, with sociodemographic variables in children as the independent variables. Total PTSD was predicted by type of house (β = -0.54, t (81), p < 0.001), living in family (β = -0.43, t (91), p < 0.001) cause of father absence (β = -0.34, t (81), p < 0.03), R2 = 0.69, F (1,81) = 13,79, p < 0.001.

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	26.07	3.87		6.73	0.001	17.76	34.37
Type of house	11.18	2.87	0.54	3.90	0.001	5.02	17.34
Living in family	-1.646-	0.52	-.43-	-3.19 -	0.01	-2.75 -	-.54 -
Cause of father absence	1.44	0.57	0.34	2.52	0.03	0.21	2.67

Table 7: *Multivariate regression model of Prediction of child's PTSD by children sociodemographic variables.*

Prediction of child's depression by children sociodemographic variables

In a multivariate regression model, total depression scores was entered as dependent variable, with sociodemographic variables in children as the independent variables. Total depression cause of father absence (β = -0.53, t (81), p < 0.01) and mother education (β = -0.47, t (81), p < 0.02), R2 = 0.40, F (1,81) = 6.66, p < 0.008.

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	14.59	4.35		3.36	0.001	5.32	23.86
Cause of father absence	2.42	0.86	0.53	2.83	0.01	0.60	4.24
Mother education	-2.008-	0.79	-.47-	-2.542-	0.02	-3.692-	-.324-

Table 8: *Multivariate regression model of Prediction of child's depression by children sociodemographic variables.*

Prediction of child's anxiety by children sociodemographic variables

In a multivariate regression model, total anxiety scores of children was entered as dependent variable, with sociodemographic variables in children as the independent variables. Total anxiety predicted by type of house (β = -0.54, t (81), p < 0.001) age of children (β = 0.60, t (91), p < 0.001) and cause of father absence (β = 0.51, t (81), p < 0.001), R^2 = 0.60, F (1,80) = 9.52, p < 0.001.

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	2.87	3.51		0.82	0.43	-4.65-	10.40
Age	4.73	1.25	0.60	3.78	0.001	2.05	7.41
Cause of father absence	2.06	0.62	0.51	3.33	0.001	0.73	3.38

Table 9: *Multivariate regression model of Prediction of child's anxiety by children sociodemographic variables.*

Discussion

This study aimed to find the prevalence PTSD, anxiety, and depression among orphaned children in one of the two institutions in the Gaza Strip. Our study showed that mean PTSD was 35.79, intrusion symptoms was 19.77, avoidance symptoms was 14.30, mean arousal symptoms was 13.65. Mean depression was 15.70, and mean anxiety was 15.70. The results showed that showed that 34.6% showed moderate PTSD, 30.9% reported anxiety, and 67.9% of children had depression. Our study prevalence rate of PTSD, depression, and anxiety was higher that rates previously reported in in study of orphaned children in similar setting which showed that 49.0% of orphaned children reported depression, 28.5% reported anxiety, and 39.3% reported severe post-traumatic stress disorder [8]. Such high rate of mental health problems may be due to cumulative effect of risk factors in Gaza Strip which including exposure to three wars, siege and closure for the last 10 years, high unemployment, increasing poverty, and uncertainty of the political situation. Our rate of prevalence of depression was less than found in study of 400 orphaned children drawn equally from AIDS and non-AIDS orphan groups aged 12 - 16 years residing in orphanages in and around Hyderabad city in southern India. The overall prevalence of depression score was 74.1% with this being significantly higher for children orphaned by AIDS than those due to other reasons Among the children orphaned by AIDS, the bulk of depression score was clustered in 12 - 14 years age groups [11].

Our study results consistent with a study examines the prevalence and correlates of depression, posttraumatic stress disorder (PTSD), and suicidality of youth in institutional care in Jordan. Institutionalized youth endorsed high rates of mental illness (45% depression, 24% PTSD, 17% depression/PTSD, 27% suicidality) [13]. Also, our high rate of mental health problems in this group of children was higher found in other children in the Gaza Strip which showed that mean PTSD symptoms was 18.37, intrusion mean was 8.98, avoidance symptoms subscale mean was 9.49. Almost sixty percent of children had posttraumatic stress disorder symptoms, 21.9% of children had anxiety and 50.6% had depression [21]. Our rate of mental health problems was lower than found by Derivois., *et al*. [14] in study a sample of 128 children and adolescents (120 boys and 8 girls) aged between 7 and 18, of an average age of 13.88, all living on the streets of Port-au-Prince in Haiti, the prevalence of severe symptoms of PTSD was 14.94%, as against 13.28% for symptoms of anxiety and 29.69% for symptoms of depression.

Our study showed that girls reported significantly more PTSD than boys, avoidance symptoms were significantly more in girls than boys, and arousal symptoms were more in girls. There no sex differences in reporting intrusion symptoms. Children living in a city had more PTSD than those children live in a camp or a village. Depression was more in children from north Gaza had more depression than those coming from the other four areas of the Gaza Strip. Children coming from north Gaza had more anxiety than those coming from the other four areas of the Gaza Strip. The result showed that there was positive correlation with statistical significance between depression and anxiety, intrusion, and avoidance. While, depression was negatively correlated with arousal symptoms of PTSD. Anxiety was negatively correlated with PTSD and avoidance symptoms of PTSD. The results didn't find any significant differences between the type of father loss and PTSD, depression, and anxiety. Also the results didn't find any significant differences between the means of every emotional problems according to the type of residence of the orphanage children. This would be the fact that the Palestinian children are affected by other risk factors such as low socioeconomic, political violence. Such findings consistent with previous study of similar sample [8].

Our study showed that children age 13 - 15 years had more anxiety than those younger and older age than them. Such age differences in anxiety findings were consistent with study of Mental health 254 of youth orphaned due to AIDS in South Africa, in which the study showed that increased age, having a biological parental caregiver, and low levels of satisfaction with the support the caregiver provides were significantly related to anxiety symptoms. Increased age, higher levels of emotional support, and lower levels of satisfaction with caregiver support related to PTS symptoms. Older youth and those who were less satisfied with their caregiver social support were more likely to report depression symptoms [25].

Study Limitations

First, the study's cross-sectional design did not enable us to study the causal links and specific risk factors associated with symptoms of PTSD, depression, and anxiety. Studies based on longitudinal designs would potentially be more beneficial in understanding the life experience of these orphaned children. The second limitation of this study is that we only did the study in sample of one orphanages in the Gaza Strip which will not generate the findings in all children who lost their parents in the Gaza Strip. Finally, the absence of studies conducted amongst this specific segment of the population before and after the repeated wars in Gaza Strip made it impossible to compare the results of this study, however interesting it would be to view the differences over time.

Conclusion and Implications for Intervention

The results of our study revealed that, this sample of Palestinian orphaned children showed heightened vulnerability to psychological distresses: Given the high prevalence of PTSD, depressive, and anxiety symptoms, psychological interventions aimed at improving well-being should be made. A psychosocial intervention that has to be adopted. In which there must be provision of expert counselling services and the furnishing of life skills training such as stress management and coping skills, the formation and sustenance of healthy peer relationship, problem-solving and decision making skills, as well as conflict management skills. Life skills training on how to assist vulnerable children could also be made available to care-givers of orphaned children. The implementation of the intervention outlined above would significantly improve the psychological well-being and overall quality of life of the Palestinian orphaned children. This study also sheds new light on the higher prevalence of mental health problems amongst children and adolescents. It thus paves the way for further specific studies of the coping and resiliency strategies used by orphaned children in their battle with adversity. As other research shows, children and adolescents who have been victims of political and interpersonal traumas, if they find the necessary resources, can build a process of resilience.

Conflict of Interest

All authors declare the absence of any conflict of interest.

Informed Consent

Informed consent was obtained from all individual participants included in the study.

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