

Prevalence of Post-Traumatic Stress Disorder Among Internally Displaced and Undisplaced Children of Khyber Pakhtukhwa

Ruqaiya Gul and Erum Irshad

ABSTRACT

Objective: War against terror shattered all faculties of living in Khyber Pakhtukhwa. The present study was aimed to explore the prevalence of post-traumatic stress disorder (PTSD) among internally displaced and undisplaced children as these children are our true future and treatment or intervention facilities available for them.

Study Design: Observational / descriptive study.

Place and Duration of study: This study was conducted at the Department of Physiology, University of Peshawar in 2011.

Materials and Methods: IDP children were assessed at schools for internally displaced children at Jalozi Camp whereas undisplaced children were assessed at different schools in Peshawar. Independent sample t-test and chi square were used to assess the prevalence and intensity of PTSD among internally displaced and undisplaced children. Semi structured interview and Post Traumatic Stress Disorder, Child and Adolescent Questionnaire (PTSD CAQ) were used to assess the prevalence and intensity of PTSD.

Results: The results supported the hypothesis. It was found that traumatic experiences of war and displacement caused serious psychological problems in children. Internally displaced children reported high levels of PTSD than undisplaced children also internally displaced children scored high on all the three subscales of PTSD CAQ that shows the severity of their reaction to war trauma.

Conclusion: It was concluded that children who were exposed to the trauma of war and who faced the uncertain situation of displacement suffered more from PTSD than those who were not displaced from the secure environment of their homes. This study also found that there was no treatment or intervention plan for the psychological treatment of these children.

Key Words: War, Posttraumatic Stress Disorder, Children, Internally Displaced And Undisplaced

Citation of article: Gul R, Irshad E. Prevalence of Post-Traumatic Stress Disorder Among Internally Displaced and Undisplaced Children of Khyber Pakhtukhwa. Med Forum 2017;28(3):106-110.

INTRODUCTION

History records shows that there have been well over 100 conflicts in the past 50 years and until recent configuration almost all were in under developed countries, where 50% of the population used to be of children, and where the civilians are supposed to carry the burden of the violence of warfare. In most conflicts civilian's casualties have been around seventy five percent¹.

The most common psychological reactions to traumatic situations of war and conflict are depression and posttraumatic stress disorder² and relatively high prevalence of these disorders have been found among displaced children living in camps as opposed to the children living in urban or rural areas³.

In a study Pham⁴ assessed survival of 1994 genocide in Rwanda and found that among 2,091 participants 24.8% fulfilled the criteria for PTSD diagnosis.

In 1998-99 war in Kosovo directly affected large number of civilians. Respondents reported symptoms of PTSD and psychological illnesses were on increase with the increase in experiences of traumatic events. Psychiatric problems were expected to occur more in IDP's. These issues were considered important to return Kosovar Albanians to stable and productive environment⁵.

In a study⁶ studied 2,796 children age between nine to fourteen years from Bosnia-Herzegovina were assessed and high levels of post-traumatic symptoms and symptoms of grief were found among them.

Similarly in another study 27 young Cambodian children age between 8 to 12 years were assessed. Among them high occurrence of PTSD was found in 48% where as in 41% children depression was found.

In Iraqi Kurdistan at "Anfal" 5 years after the military operation forty five families were selected randomly from two camps that were arranged for displaced people. The posttraumatic stress symptoms were assessed among the caregivers and the oldest child in each family. 87% of the children and 60% of their caregivers reported PTSD⁸.

Laor et al.^{9,10} studied Israeli children and found that after Iraqi shelling Posttraumatic stress symptoms

Department of Physiology, University of Peshawar

Correspondence: Ruqaiya Gul, Lecturer, Department of Physiology, University of Peshawar

Contact No: 0333-9776484

Email: ruqaiya_gul@hotmail.com

Received: January 3, 2017; Accepted: February 10, 2017

decreased in general population but the symptoms increased among displaced children.

Paardekooper, De Jong and Hermanns¹¹ assessed children and found that refugee children who experienced war related hassles also experienced more traumatic events and were using more coping modes. They also frequently reported PTSD-like complaints, behavioral problems, and depression symptoms.

Neuner et al.¹² studied Ugandans and Sudanese from west Nile Region. Randomly selected sample of 3,339 refugees and found that a DSM-IV criterion for PTSD was fulfilled by both male and female respondents (31.6% and 40.1% respectively). He also found that as the experiences of traumatic events increased the prevalence and occurrence of psychological strain also increases.

Hasanovic¹³ conducted a study and found that around half of the children from Bosnia reported clinically high levels of PTSD during the war in former Yugoslavia.

Kinzie, Sack, Angell, Clarke, & Ben¹⁴ assessed 27 young people age between 8 to 12 years from Cambodia for three years they experienced severe trauma. For assessment structured interview and self-rating scales were used. Among them high occurrence of PTSD was found in 48%. Depression was found in 41%. Ovuga, Oyok & Moro¹⁵ carried out a study on 58 girls and 44 boys in north Uganda 55.9% of the children had PTSD.

Pakistan started "War against Terror" after the incidence of 9/11. Evils of this war caused too much damage to the nation and huge cost was paid by the public especially people from the tribal areas Khyber Pakhtunkhwa (KP) faced lot of difficulties and pushed the people of Federally Administered Tribal Area (FATA) to migrate from their native home land to a more secure place.¹⁶ Survey research found that IDP's faced endless problems in adjustment to resettled areas.

A case study by Khalily¹⁷ reveals that war against terror increased the incidence of mental health problems in Swat Valley, but the health care system is not well developed to deal efficiently with these issues.

To assess the psychological and emotional reactions of Pakistani children towards "War against Terror" following study was designed. The main aim of the study was to assess the prevalence and intensity of PTSD among children who got internally displaced as compare to those who were not displaced and to assess the psychological treatment available for them.

Hypotheses

1. There will be high incidence of post traumatic stress disorder among internally displaced children as compare to undisplaced children.
2. Internally displaced children will score high on PTSD CAQ as compare to undisplaced children i.e. their intensity of PTSD symptoms will be high.

MATERIALS AND METHODS

Sample comprised of (N=282) subjects, including children from internally displaced camps (n=192) and undisplaced children (n=90). Children between ages 10 to 15 were included in the sample. Equal number girls and boys were included in the sample. Internally displaced children were randomly selected from schools of internally displaced people at Jalozi camp, KP. Whereas undisplaced children were randomly selected from schools located in different areas of Peshawar, KP.

Procedure: After taking formal permission from head of the schools and consent from parents semi structured interview was conducted with all the subjects to develop rapport and to collect information about history, intensity and duration of the problem, and the academic and behavioral problems of the children. Screening test i.e. Post-Traumatic Stress Disorder Children and Adolescents Questionnaire (PTSD CAQ) was administered on children at schools for internally displaced and undisplaced children to assess prevalence and intensity of PTSD among them. PTSD CAQ is a 35 items likert-type scale to assess the level of posttraumatic stress disorder in children. Reported reliability of PTSD CAQ is =.82. (Steele & Raider, 2001).

It consists of three subscales

- i. Reexperiencing of traumatic events.
- ii. Avoidance of stimuli associated with traumatic event.
- iii. Symptoms of increased arousal due to traumatic event.

RESULTS

Table 1 shows that PTSD CAQ has three sub scales sub scale I assess reexperiencing of traumatic events. It has 12 items and Cronbach's alpha reliability is .963 that indicates relatively high reliability. Sub scale II assesses symptoms of increased arousal. It has 13 items and Cronbach's alpha reliability is .731 that also shows relatively high reliability. Sub scale III assesses symptoms of increased arousal due to traumatic events. It has 10 items and Cronbach's alpha value is .93 that also indicates relatively high reliability. Skewness and kurtosis values of PTSD CAQ sub scales ranges between +1 to -1 that shows normal distribution of data. Table 2 shows that internally displaced children suffered significantly from PTSD as compare to undisplaced children. Internally displaced children showed symptoms of reexperiencing of traumatic events significantly more than undisplaced children (41.51 ± 7.66) with $t(280)=25.49$, $p=.000$. Internally displaced children also showed symptoms of avoidance of stimuli associated with traumatic events more than undisplaced children (22.76 ± 4.60) with $t(280)=10.31$,

$p = .000$. Table also shows that internally displaced children suffered more from symptoms of increased arousal due to traumatic events than undisplaced children (32.14 ± 5.73). with $t(280) = 31.33, p = .000$. The mean values of sub scales I indicates moderate levels of symptoms of reexperiencing of traumatic events persist in general population of internally displaced children while mild symptoms are reported in undisplaced children. The mean of sub scale II indicates that mild levels of symptoms of avoidance of stimuli associated with traumatic events are reported in both the internally displaced and undisplaced children. Mean

scores of sub scale III that assess symptoms of increased arousal indicates that moderate levels of symptoms in internally displaced children while mild symptoms in undisplaced children are reported.

Standard deviation is high in internally displaced group than undisplaced group that indicates that more severe cases of PTSD were present in internally displaced group than undisplaced group.

Table 3 shows that the incidence of PTSD in internally displaced children is reported high than undisplaced children. There is significant difference between IDP and undisplaced children.

Table No.1: Psychometric properties of PTSD CAQ

Scales	No of items	α	M(SD)	Ranges		Skew	Kur
				Potential	Actual		
Reexperiencing	12	.96	36.15(11.90)	12-60	14-58	-.21	-.90
Avoidance of stimuli	13	.73	21.32(4.8)	13-65	13-54	1.95	9.65
Increased arousal	10	.93	26.97(10.1)	10-50	10-46	-.39	-1.04

Note. Sub scale I = reexperiencing of traumatic events, Sub scale II = avoidance of stimuli associated with traumatic events, Sub scale III = symptoms of increased arousal due to traumatic events, α = Cronbach's Alpha, M= mean, SD= standard deviation, Skew= skewness, Kur= Kurtosis.

Table No.2: Mean, Standard deviation, and t-values on the sub scales of PTSD CAQ between IDP's and Undisplaced children (n=282)

Sub scale	IDP's (n=192)		Undisplaced (n=90)		t(280)	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
Reexperiencing	41.51	7.66	19.79	3.7	25.49	.000	20.04	23.39	3.26
Avoidance of stimuli	22.76	4.60	17.38	2.6	10.31	.000	4.35	6.41	1.32
Increased arousal	32.14	5.73	12.46	2.37	31.33	.000	18.53	20.92	4.00

Table No.3: Cross tabulation of symptoms of reexperiencing of traumatic events, avoidance of stimuli associated with traumatic events and increased arousal due to traumatic events reported among internally displaced and undisplaced children.

	Internally displaced	undisplaced	p
Re-experiencing	(n=192)	(n=90)	.000
Mild	8.3	98.9	
Moderate	45.6	1.1	
Severe	46.0	0.0	
Avoidance of stimuli			.000
Mild	13.1	70.0	
Moderate	52.4	30.0	
Severe	34.5	0.0	
Increased arousal			.000
Mild	10.7	100.0	
Moderate	45.2	0.0	
Severe	44.0	0.0	

DISCUSSION

In this study semi-structured interview and PTSD CAQ scales were used. PTSD CAQ has three sub scales sub scale 1 assess reexperiencing of traumatic events. It

has 12 items and cronbach's alpha reliability is .96 that indicates relatively high reliability. Sub scale II assesses symptoms of increased arousal. It has 13 items and cronbach's alpha reliability is .73 that also shows relatively high reliability. Sub scale III assesses symptoms of increased arousal due to traumatic events. It has 10 items and cronbach's alpha value is .93 that also indicates relatively high reliability. Skewness and kurtosis values of PTSD CAQ sub scales ranges between +1 to -1 that shows normal distribution of data (see table 1).

This study provided evidence that the incidence of PTSD is high among internally displaced children as compare to undisplaced children of KP (see table 2). Internally displaced children showed symptoms of reexperiencing of traumatic events significantly more than undisplaced children (41.51 ± 7.66) with $t(280) = 25.49, p = .000$. Internally displaced children also showed symptoms of avoidance of stimuli associated with traumatic events more than undisplaced children (22.76 ± 4.60) with $t(280) = 10.31, p = .000$. Internally displaced children suffered more from symptoms of increased arousal due to traumatic events than undisplaced children (32.14 ± 5.73). with $t(280) = 31.33, p = .000$.

The mean values of sub scales I indicates moderate levels of symptoms of reexperiencing of traumatic events persist in general population of internally displaced children while mild symptoms are reported in undisplaced children. The mean of sub scale II indicates that mild levels of symptoms of avoidance of stimuli associated with traumatic events are reported in both the internally displaced and undisplaced children. Mean scores of sub scale III that assess symptoms of increased arousal indicates that moderate levels of symptoms in internally displaced children while mild symptoms in undisplaced children are reported.

Standard deviation is high in internally displaced group than undisplaced group that indicates that more severe cases of PTSD were present in internally displaced group than undisplaced group.

PTSD is frequently caused by disasters but its intensity and frequency increases in internally displaced children mainly because they face the hazards of disaster as well as the trauma of displacement. Their whole living gets destroyed by displacement. This unexpected and severe threat to their existence cause severe PTSD. The present study also found high intensity of PTSD among internally displaced children as they scored high on all sub scales of PTSD CAQ as compared to undisplaced children (see table 3).

Through semi structured interview this study found a number of significant war associated factors that led to the development of PTSD e.g. all of the internally displaced children went through the experience of leaving their home in an emergency situation. Semi structured interview revealed that they lost their loved ones in this war situation, some witnessed the killing of their family members, received threats about kidnapping and killing, even some children were restricted in their madrassas (school) because of terrorist attacks, some children lost their families during displacement and later on met their families in internally displaced camps through the efforts of their family members and Government and Non-Government agencies. These war related risk factors shed significant effects on children.

School teachers in internally displaced camps reported that these children were fearful because of their traumatic experiences. Whenever they hear sound of a flying airplane they come out from their classrooms and pickup stones to hit the plane and to protect themselves.

Findings of this study revealed that war and conflicts caused serious symptoms of PTSD among internally displaced children of KP. Children were feeling fearful because of threatening situation and guilty because of helplessness. They witnessed the unexpected terror at a very young age for which their capabilities were not well developed.

CONCLUSION

Children of Khyber Pakhtunkhwa faced unexpected terrors of war that caused serious physical, social as well as psychological problems to them. High prevalence of PTSD was found among internally displaced children than undisplaced children. They also scored high on all the sub-scales of PTSD CAQ that shows high intensity or severity of their psychological reaction to war and displacement. Moreover this study was conducted in Jalozi camp for IDPs and people there had no access to psychological interventions especially children who cannot express their feelings were at high risk.

Conflict of Interest: The study has no conflict of interest to declare by any author.

REFERENCES

1. Richman N. Annotation: Children in situations of Political Violence. *J Child Psychol Psychiat* 1993; 34(8):1286-302.
2. Hasanovic M. Psychological consequences of war-traumatized children and adolescents in Bosnia and Herzegovina. *Acta Medica Academica* 2011; 40(1):45-66.
3. khamis V. Pos-traumatic stress disorder among school age Palestinian children. *Child Abuse & Neglect* 2005;29(1):81-95.
4. Pham, Phuong N, Harvey M, Weinstein, Longman T. Trauma and PTSD symptoms in Rwanda. *JAMA* 2004;292(5):602.
5. Cardozo, Barbara L. Mental Health, Social Functioning, and Attitudes of Kosovar Albanians Following the War in Kosovo. *JAMA* 2000; 284(5):569.
6. Smith P, Perrin S, Yule W, Hacam B, Stuvland R. War exposure among children from Bosnia-Herzegovina: psychological adjustment in a community sample. *J Traumatic Stress* 2002; 15(2):147-56.
7. Kinzie JD, Sack W, Angell R, Clarke G, Ben R. A Three-Year Follow-up of Cambodian Young People Traumatized as Children. *J Am Acad Child Adolescent Psychiat* 1989;28(4):501-04.
8. Ahmad A, Sofia MA, Sundelin-Wahlsten V, Von Knorring A-LV. Posttraumatic stress disorder in children after the military operation "Anfal" in Iraqi Kurdistan. *Europ Child Adolescent Psychiat* 2000;9(4):235-43.
9. Laor N, Wolmer L, Mayes L C, Gershon A, Weizman R, Cohen DJ. Israeli preschools under

- Scuds: a 30 month follow-up. *J Am Acad Child and Adolescence Psychiat* 1997;36(3):349-356.
10. Laor N, Wolmer L, Cohen DJ. Mothers' Functioning and children's symptoms 5 Years after a SCUD Missile Attack. *Am J Psychiat* 2001; 158(7):1020-026.
 11. Paardekooper B, JTV M, De Jong, Hermanns JMA. The psychological impact of war and the refugee situation on South Sudanese children in refugee camps in Northern Uganda: an exploratory study. *J Child Psychol Psychiat* 1999; 40(4):529-36.
 12. Neuner F, Schauer M, Karunakara U, Klaschik C, Robert C, and Elbert T. Psychological trauma and evidence for enhanced vulnerability for posttraumatic stress disorder through previous trauma among West Nile refugees. *BMC Psychiat* 2004;4(1).
 13. Hasanovic M. Psychological consequences of war-traumatized children and adolescents in Bosnia and Herzegovina. *Acta Medica Acad* 2011; 40(1):45-66.
 14. Kinzie JD, Sack W, Angell R, Clarke G, Ben R. A three-year follow-up of Cambodian young people traumatized as children. *J Am Acad Child Adolescent Psychiat* 1989;28(4):501-04.
 15. Ovuga E, Oyok TO, Moro EB. Post traumatic stress disorder among former child soldiers attending a rehabilitative service and primary school education in Northern Uganda. *Afri Health Sci* 2008;8(3):136-41.
 16. Kazmi FS, Abbasi SB, Khan MA, Taj R. Stressful life events among internally displaced persons of KPK after military operations. *Ann Pak Inst Med. Sci* 2015;11(1):40-46
 17. Khalily MT. Mental health problems in Pakistani society as a consequence of violence and trauma: a case for better integration of care. *Int J Integrated Care* 2011;11(4).