

Gender comparisons and prevalence of child abuse and post-traumatic stress disorder symptoms in adolescents

Farzana Ashraf,¹ Faiza Niazi,² Afsheen Masood,³ Sadia Malik⁴

Abstract

Objective: To identify the gender differences, prevalence and cross-association of abuse and post-traumatic stress disorder symptoms in school-going adolescents.

Methods: The cross-sectional study was conducted in four government schools of Lahore, Pakistan, from February to June 2016, and comprised students aged 11-18 years who were selected through simple random sampling technique. The Child Abuse Scale: Adolescent Version and Hopkins Symptoms Checklist were used to measure the gender differences, prevalence and cross-association of abuse and post-traumatic stress disorder symptoms. SPSS 22 was used to analyse data.

Results: There were 478 participants with a mean age of 15.18±1.45 years. Of the total, 247(52%) subjects were males and 231(48%) were females. The overall, 130(27%) male respondents reported significantly high abuse than 101(21%) female adolescents ($p=0.032$). However, 113(23%) females scored significantly high on physical and emotional sub-scales of abuse than 98(21%) males ($p=0.031$). No significant gender differences in the prevalence of sexual abuse were observed ($p=0.431$). On post-traumatic stress disorder symptoms, 140(29%) females demonstrated high scores than 102(21%) males ($p=0.008$). Association of child abuse with post-traumatic stress disorder symptoms was also significant ($p=0.008$) as 133(28%) subjects reporting high abuse also exhibited high symptoms of post-traumatic stress disorder.

Conclusion: Significant association of abuse with post-traumatic stress disorder symptoms emphasise the need for early identification and timely management of abuse and post-traumatic stress disorder symptoms in adolescents.

Keywords: Child abuse, PTSD symptoms, Adolescents. (JPMA 69: 320; 2019)

Introduction

Childhood exposure of parental abuse and violence results into persistent traumatic stress which may lead to post-traumatic stress disorder (PTSD) symptoms in adolescence. Furthermore, repetitive and frequent exposure of abuse also results into exhibition of several poor mental health outcomes including PTSD in the later ages.¹ Identification of childhood abuse is critical to the meaningful and appropriate identification of exposure of abuse and traumatic experiences. In this context, the dilemma with estimation and management of effects of abuse and other traumatic incidents among adolescents in Pakistan is critical to the lack of awareness about chronicity of child abuse. According to a study, reported cases of sexual abuse in children for 2012 were 2778 followed by 3002 in 2013.² No figures are available for other forms of recognised abuse, such as physical and emotional abuse, and emotional neglect.

Abuse is generally categorised into sexual, physical and emotional neglect and among these sexual abuse is reported alarmingly common in both males and females.^{2,3} This may partially indicate the fact that mostly empirical evidence seems to focus on the reported cases of abuse in women.⁴ Though literature has extensively explored gender differences in sexual abuse, less attention has been paid to the identification of physical and emotional abuse and neglect, particularly the role of gender in the prevalence of abuse and its psychiatric consequences such as PTSD symptoms has not been sufficiently examined.³

While examining the gender differences in the prevalence of abuse and PTSD symptoms, literature clearly documents the dominant prevalence of child abuse in girls due to high vulnerability and in comparison to this boys are less likely to report abuse.³ A general prevalence of child abuse for females has been noticed as 13.5% compared to 2.5% among males.⁴ In the context of gender difference in PTSD symptoms, particularly in relation to child abuse, most of the literature has focussed only on sexual abuse aspect.⁴⁻⁶ Even within this perspective, it could be viewed from two directions; exposed and not exposed to sexual abuse/ trauma. Some

¹Department of Humanities, COMSATS University Islamabad, Lahore Campus ²Department of Psychology, University of Management and Technology, Lahore, ³Institute of Applied Psychology, University of The Punjab, Lahore, ⁴Department of Psychology, University of Sergodha, Sergodha.

Correspondence: Farzana Ashraf. Email: farzana.ashraf@cuilahore.edu.pk

studies did not reveal any significant gender differences in prevalence of PTSD symptoms among adults exposed to any sexual abuse/trauma. Whereas, from samples of children and adolescents, girls were approximately twice as likely to demonstrate the symptoms of PTSD compared to boys.⁵ However, the gender differences in the prevalence of other forms of abuse particularly in association with PTSD symptoms have remained unexplored.⁶ Also, previously no empirical studies examining prevalence and association of abuse and PTSD symptoms in the local context have been documented. The current study was planned to investigate the gender differences, prevalence and association of child abuse and PTSD symptoms in adolescents.

Subjects and Methods

The cross-sectional study was conducted at four government schools of Lahore, Pakistan, from February to June 2016, and comprised students aged 11-18 years studying in grades 6-10. The selection of schools was made through probability cluster sampling technique. Administratively, Lahore is divided into nine regions and one of these region comprises Township, Model Town and Faisal Town. The Govt. Model Town High School for boys, the Govt. Model Town Higher secondary School for boys, the Govt. Model Town High School for girls, and the Govt. Model Town Elementary School for girls were the four schools that were selected from the area of Model Town. Approval for the study was obtained from the Education District Board Officer (EDO), Lahore. The sample size was determined by using the OpenEpi software⁷ assuming a well proportionate sample distributed across both genders with 5% error margin and 95% confidence interval (CI). In order to be sure about normal distribution of sample and generalisability of findings, the students identified with any major psychological problems, mental deficits, neurological deteriorations, physical disabilities or those referred for counselling or psychiatric services were excluded.

Two self-report instruments were used. The first was the Child Abuse Scale: Adolescent Version,⁸ assessing three dimensions; physical and emotional abuse, physical and emotional neglect, and sexual abuse, with responses measured on 7-point scale ranging from strongly disagree=1 to strongly agree=7. The second instrument used was the Hopkins Symptoms Checklist⁹ assessing two dimensions; depression, and anxiety symptoms, with response options from 0=not at all to 3=to a greater extent. The respondents were recruited through simple random sampling technique. SPSS 22 was used for data analysis. To identify the prevalence of child abuse in male and female adolescents, crosstab analysis was run. Low and high prevalence were calculated by identifying the median value for the relevant samples. This method has been previously followed by several studies.¹⁰ Crosstab analysis and Chi-square test of association were calculated at minimum of $p < 0.05$ significance level.

Results

Of the 500 questionnaires equally distributed across the genders, 487(97.4%) were returned, and, of them, 9(1.8%) were excluded due to random responses, outliers and missing responses. The final sample size stood at 478(95.6%) adolescents of whom 247(52%) were males and 231(48%) were females. The overall mean age was 15.18±1.45 years (range: 11-18 years). In terms of education level, 89(18.7%) were from grade 6, 96(20%) grade 7, 84(17.5%) grade 8, 107(22.3%) grade 9 and 102(21.5%) were from grade 10.

Overall, 130(27%) males reported high percentages on child abuse then 101(21%) females ($p=0.032$). However, 113(23%) females scored significantly high on physical and emotional sub-scales of abuse than 98(21%) males ($p=0.031$). A total of 136(29%) males exhibited physical and emotional neglect compared to 92(19%) females ($p=0.008$). No significant gender differences in the prevalence of sexual abuse were observed ($p=0.431$) (Table-1).

Table-1: Demographics.

Measures	Male Adolescents (N=247)		Female Adolescents (N=231)		χ	P
	Low f (%)	High f (%)	Low f (%)	High f (%)		
Child Abuse	116 (25%)	131 (27%)	130 (27%)	101 (21%)	4.14	.032
Physical & Emotional Abuse	149 (31%)	98 (21%)	118 (25%)	113 (23%)	4.13	.031
Physical & Emotional Neglect	111(23%)	136 (29%)	139 (29%)	92 (19%)	11.10	.008
Sexual Abuse	132 (28%)	115 (24%)	120 (25%)	111(23%)	.10	.431
PTSD Symptoms	145 (30%)	102 (21%)	91 (19%)	140 (29%)	17.45	.0001
Anxiety	165 (35%)	80 (17%)	108 (23%)	125 (26%)	22.33	.0001
Depression	156 (33%)	91 (19%)	119 (25%)	112 (23%)	6.62	.044

PTSD: Post-traumatic Stress Disorder.

Table-2: Association of Abuse with Post-traumatic Stress Disorder (PTSD) Symptoms (N=478).

Measures		PTSD Symptoms			
		Lowf (%)	Highf (%)	χ	p
Child Abuse	Low Abuse	137(29%)	108(22%)	8.36**	.008
	High Abuse	99(21%)	133(28%)		
Physical & Emotional Abuse	Low Abuse	172(36%)	94(20%)	55.46***	.0001
	High Abuse	64(13%)	147(31%)		
Physical & Emotional Neglect	Low Abuse	120(25%)	129(27%)	.43	.238
	High Abuse	116(24%)	112(23%)		
Sexual Abuse	Low Abuse	133(28%)	119(24%)	2.33	.058
	High Abuse	103(22%)	122(25%)		
Measures		Anxiety Symptoms			
		Lowf (%)	Highf (%)	χ	p
Child Abuse	Low Abuse	166(35%)	80(17%)	23.10***	.0001
	High Abuse	105(22%)	125(26%)		
Physical & Emotional Abuse	Low Abuse	196(41%)	71(15%)	67.32***	.0001
	High Abuse	75(16%)	134(28%)		
Physical & Emotional Neglect	Low Abuse	153(33%)	97(20%)	3.91*	.040
	High Abuse	118(24%)	108(23%)		
Sexual Abuse	Low Abuse	169(36%)	82(17%)	23.41***	.0001
	High Abuse	102(22%)	123(25%)		
Measures		Depressive Symptoms			
		Lowf (%)	Highf (%)	χ	p
Child Abuse	Low Abuse	164(34%)	82(17%)	17.31***	.0001
	High Abuse	111(23%)	121(26%)		
Physical & Emotional Abuse	Low Abuse	172(36%)	95(19%)	11.75**	.007
	High Abuse	103(22%)	108(23%)		
Physical & Emotional Neglect	Low Abuse	144(30%)	106(23%)	.01	.870
	High Abuse	131(27%)	97(20%)		
Sexual Abuse	Low Abuse	165(35%)	87(18%)	13.77***	.0001
	High Abuse	110(23%)	116(24%)		

On PTSD symptoms, 140(29%) females demonstrated high scores than 102(21%) males ($p=0.008$). Association of child abuse with PTSD was also significant ($p=0.008$) as 133(28%) subjects reporting high abuse also exhibited high symptoms of post-traumatic stress disorder. Particularly in case of physical and emotional abuse, association was significantly high as 174(31%) adolescents reporting PTSD symptoms also experienced abuse in childhood ($p=0.0001$). Although physical and emotional neglect was not significantly associated with overall PTSD symptoms ($p=0.238$), the association was significant with anxiety symptoms as 103(23%) adolescents reporting physical and emotional neglect also exhibited anxiety symptoms ($p=0.040$).

Physical and emotional neglect was significantly associated with anxiety symptoms ($p<0.01$) while no association of abuse was seen with depressive symptoms.

No significant association of sexual abuse with PTSD symptoms was seen ($p=0.058$) but it was significant when analysed with anxiety and depressive symptoms independently ($p=0.0001$ each) (Table-2).

Discussion

Unlike the Western world, no studies have been conducted locally so far examining PTSD symptoms specifically in relation to child abuse. However, some studies found significant links of child abuse with other factors such as behavioural and emotional problems.¹¹

The present study noted significant gender differences with dominant prevalence of abuse in male adolescents which is in contrast with a study illustrating ratio of 13% child abuse for females and 6% for males.¹⁰ The current study also demonstrated high prevalence of physical and emotional neglect in the sample of male adolescents and low for female adolescents which also differs from previous

findings of a larger population-based survey in Taiwan showing high ratio of neglect for female participants.¹²

In the context of prevalence of sexual abuse, no significant gender differences were seen while previous literature narrated mixed findings, some highlighting high prevalence for females,¹¹ while others reporting dominant ratio for males.¹⁰ These discrepancies in findings could be due to the geographical, cultural and tradition factors involved in child maltreatment which also make it difficult to define child abuse and maltreatment across countries and cultures.¹³

Childhood experiences of abuse increases the likelihood of being exposed to PTSD symptoms in adolescence. Our study also found significant association of child abuse with PTSD symptoms generally and with anxiety symptoms specifically. These findings confirmed the previous results¹⁴ from multivariate analyses reporting that the presence of PTSD symptoms fully accounted for the repetitive episodes of child sexual and physical abuse. This significant association could be due to the fact that PTSD symptoms are likely to prevail more consistently when child abuse is from trusted individual or loved ones which is usually a parent figure. Particularly, anxiety symptoms (e.g., apprehensions and fear) may be overwhelming when abuse is from one of the parent or a sibling.¹⁵

Symptoms of PTSD were not found significantly associated with overall scores on abuse measure, yet while exploring it in association with its subscales (i.e., anxiety and depressive symptoms), strong associations were observed. This could be due to the fact that majority of the respondents either reported anxiety or depressive symptoms than manifesting both. This could also imply the low prevalence of comorbidity of anxiety and depressive symptoms in adolescents exposed to child sexual abuse.

In case of association between physical abuse and emotional neglect and depressive symptoms, no significant results were seen which are in contrast with the most of the previous findings emphasising upon the childhood abuse and neglect as the strongest risk factor of depressive symptoms.¹⁶ This could be attributed towards some other factors such as resilience and emotional support which might play its role in managing the effects of child abuse and resulting into minimising the depressive symptoms.¹⁷

As is generally the case, the current study had its limitations. In this cross-sectional survey-based research, self-report measures were used. To obtain more

consistent and valid observations, longitudinal study with addition of qualitative interviews may be planned. Though significant associations between PTSD symptoms and abuse were observed and measures used has been widely used and validated in the local context, as child-rearing practices are exercised differently in collectivist and individualistic cultures, therefore some upbringing practices perceived abuse in the West could be interpreted as obligation in the cultural context of Pakistan. So, there is possibility that participants' responses were over or under rated. The sample included respondents only from government schools where in general students from low or middle lower socio-economic status are enrolled. Taking representative sample of students from private schools may enhance the validity of results and generalisability of findings. Moreover, comorbidity of depressive and anxiety symptoms in relation to physical, sexual and emotional abuse could also be explored. In addition, among all personal characteristics, age has previously^{1,4,11} been reported in association with abuse and PTSD, therefore examining prevalence and comorbidity of abuse and PTSD across various age groups could provide wider perspective of study findings and its implications. Further, in the light of age-related results, more stringent and structured psychiatric management plans and school counselling services could be offered.

Conclusion

There were significant gender differences in the prevalence of abuse and PTSD symptoms. Overall abuse was more prevalent in males, but physical and emotional abuse was higher for females. In addition, association between abuse and PTSD symptoms was also significant. Exposure to child abuse increases the vulnerability of PTSD symptoms in adolescence, therefore, timely recognition of child abuse and management of PTSD symptoms is highly recommended.

Disclaimer: None.

Conflict of Interest: None.

Source of Funding: None.

Reference

1. Margolin G, Vickerman KA. Post-traumatic Stress in Children and Adolescents Exposed to Family Violence: I. Overview and Issues. *Prof Psychol Res Pr.* 2007; 38: 613–9.
2. A compilation of statistics on child sexual abuse of reported cases in Pakistan. [Online]2013 [Cited2018January23]. Available from: URL: <http://sahil.org/wp-content/uploads/2014/06/Cruel-Number-2013.pdf>
3. Walker JL, Carey PD. Gender differences in the prevalence of childhood sexual abuse and in the development of pediatric PTSD. *Arch WomensMent Health.* 2004; 7:111-21.

4. Molnar BE, Buka SL, Kessler RC. Child sexual abuse and subsequent psychopathology: results from the National Comorbidity Survey. *Am J Public Health*. 2001; 91:743–60.
 5. Tolin DF, FoaEB. Sex differences in trauma and posttraumatic stress disorder: a quantitative review of 25 years of research. *Psychol Bull*. 2006; 132:959-92.
 6. Tolin DF. Sex differences in risk of PTSD. *R Quart*. 2007; 18:1050-835.
 7. Sullivan KM, Dean A, Soe MM. OpenEpi - a web-based epidemiologic and statistical calculator for public health. *PublicHealth Rep*. 2009; 124:471-4.
 8. Ghaffar K, Malik F. Child maltreatment, self-compassion, empathy and emotional dysregulation in destitute adolescents. M. Phil dissertation, University of the Punjab.
 9. HalepotaAA, WasifSA. Hopkins Symptoms Checklist 25 (HSCL-25) Urdu translation: an instrument for detecting anxiety and depression in torture and trauma victims. *J Pak Med Assoc*. 2001; 51: 255-7.
 10. Wang Y, Moreno LA, Caballero B, Cole TJ. Limitations of the current world health organization growth references for children and adolescents. *FoodNutr Bull*. 2006;27:S175–88.
 11. Wellman MM. Child sexual abuse and gender differences: Attitudes and prevalence. *Child Abuse Negl*. 1993; 17:539-47.
 12. Fenga JY, Chang YT, Changc HY, Fetzer S, WangeJD. Prevalence of different forms of child maltreatment among Taiwanese adolescents: A population-based study. *Child Abuse Negl*. 2015; 42:10-9.
 13. International Society for the Prevention of Child Abuse and Neglect. *World perspectives on child abuse 10th ed*. Chicago, 2012.
 14. Spinhoven P, Penninx BW, van Hemert AM, de Rooij M, Elzinga BM. Comorbidity of PTSD in anxiety and depressive disorders: prevalence and shared risk factors. *Child Abuse Negl*. 2014; 38:1320-30.
 15. Margolin G, Vickerman KA. Post-traumatic Stress in Children and Adolescents Exposed to Family Violence: I. Overview and Issues. *Prof Psychol Res Pr*. 2007; 38: 613-9.
 16. Cutajar MC, Mullen PE, Ogloff JR, Thomas SD, Wells DL, Spataro J. Psychopathology in a large cohort of sexually abused children followed up to 43 years. *Child Abuse Negl*. 2010; 34:813-22.
 17. Musliner KL, Singer JB. Emotional Support and Adult Depression in Survivors of Childhood Sexual Abuse. *Child Abuse Negl*. 2014; 38: 1331-40.
-