

# A Comparative Study of Childhood Abuse in Depressed Female Patients and Patient Attendees in a Medicine Ward of a Tertiary Care Hospital

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## ABSTRACT

**Background and aims:** Adults with childhood abuse have high prevalence of psychiatric disorders out of which depressive disorder is most commonly reported. In addition, a dose–response relationship is reported to exist between childhood abuse and chronic depression. This study was conducted to estimate the proportion of depressed female patients having childhood abuse and to correlate between severity of childhood abuse and severity of depression.

**Materials and methods:** In total, 30 cases and 30 comparison groups between 18 and 65 years of age were included after informed consent, where cases included females with major depressive disorder and comparison group included attendees of patients admitted in general medicine ward of the same hospital in this cross-sectional analytical study. For cases, those with organic mood disorder, substance-induced mood disorders, and patients with severe medical illness were excluded, whereas for comparison group, those with current or past history of any psychiatric disorders and severe medical illness were excluded.

Study tools included sociodemographic questionnaire, MINI plus to screen for any psychiatric illness, Hamilton Depression Rating Scale (HDRS) to assess the severity of depressive disorder, and Childhood Trauma Questionnaire-Short Form (CTQ-SF) was used to screen for childhood trauma. Data were entered and analyzed in Microsoft Excel.

**Results:** Prevalence of childhood abuse in our study was higher in cases (60%) than comparison group (43%) but statistically was not found to be significant. Comorbid medical illness among cases was higher (37.7%) than the comparison group (3.3%) in our study ( $p < 0.003$ ). History of psychiatric illness in parents was significantly higher among cases than comparison group ( $p = 0.01$ ). Total trauma scores were significantly higher in cases than comparison group ( $p = 0.009$ ). A prevalence of emotional abuse was significantly higher in cases (40%) than in the comparison group (13%). Positive correlation was found between CTQ scores and the severity of depression in our study ( $p = 0.002$ ).

**Conclusion:** There is high prevalence of childhood abuse among depressed female patients compared with healthy comparison group. Severity of childhood abuse was positively correlated with severity of depression. It is thus important to recognize childhood abuse in female patients with depression, which necessitates management with psychotherapy in addition to pharmacotherapy for depression.

**Keywords:** Adverse childhood experiences, Depression, Emotional abuse, Female.

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## INTRODUCTION

Depression is one of the leading causes of disability that can impact every aspect of life. It is associated with chronicity, poor rate of recovery, and recurrences.<sup>1</sup>

WHO defines child abuse as a violation of basic human rights of a child, constituting all forms of physical, emotional ill-treatment, sexual harm, neglect or negligent treatment, and commercial or other exploitation, resulting in actual harm or potential harm to the child's health, survival, development, or dignity in the context of a relationship of responsibility, trust, or power. There is a wide variation in reported prevalence of childhood abuse which varies between 35% and 78% based on the method of assessment.<sup>2,3</sup>

Adults with childhood abuse have high prevalence of psychiatric disorders, out of which depressive disorder is most commonly reported. In addition, a dose–response relationship exists between childhood abuse and chronic depression.<sup>4</sup> Childhood abuse is associated with early onset, multiple recurrences, and higher comorbidities associated with depression.<sup>5</sup> Childhood emotional abuse and neglect are found to be a risk factor for depression and its severity.<sup>6</sup>

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Childhood abuse leads to development of defective cognitive schema like disconnection and rejection, which in turn leads to depression.<sup>7</sup>

There is a high prevalence of depression in our country and limited number of Indian studies on childhood abuse and its

association with depression among female patients, which creates a need to conduct more studies on this topic. We conducted this study with the following objectives.

- To estimate the proportion of depressed female patients having childhood abuse in a tertiary care hospital setting.
- To correlate between the severity of childhood abuse and severity of depression.

**METHODOLOGY**

The study population included 30 cases and 30 comparison groups, where cases included females with major depressive disorder and comparison group (controls) included attendees of patients admitted in general medicine ward of the same hospital. Convenient sampling was used in this cross-sectional analytical study. Ethical committee clearance was obtained, informed consent was obtained from all subjects, and confidentiality was ensured. In all, 18–65-year-old female patients diagnosed with major depressive disorder, willing to give informed consent, were considered in the case group and age-matched comparison group were considered.

Exclusion criteria for cases were any psychiatric disorders other than major depressive disorder, organic mood disorder, substance-induced mood disorders, and patients with severe medical illness, whereas exclusion criteria for comparison group included absence of current or past history of any psychiatric disorders and severe medical illness.

Study tools included sociodemographic questionnaire to collect data on age, years of formal education, religion, marital status, and occupation. MINI plus was applied to all subjects to screen for any psychiatric illness after obtaining permission for use. Hamilton Depression Rating Scale was used to assess the severity of depressive disorder among the cases. Childhood Trauma Questionnaire-Short Form was used in both cases and comparison group to screen for the same while permission was obtained from the author to use the CTQ questionnaire.

**Statistical Methods**

Data were entered and analyzed in Microsoft Excel. As tests for normality revealed a nonparametric distribution, we used Mann–Whitney *U* test to compare continuous variables between cases and controls and Chi-square test for categorical variables.

**RESULTS**

There was a statistically significant difference in the type of family between cases and the comparison group.

There was a statistically significant difference in comorbid medical illness, past history of psychiatric illness, and psychiatric illness in father between cases and comparison group. Diabetes mellitus, hypertension and hypothyroidism were the common medical illnesses identified.

Total abuse scores, emotional abuse, and emotional neglect scores were significantly higher in cases than controls.

There was a statistically significant correlation between physical neglect scores with depression severity (HAM-D) and age of onset of depression, sexual abuse with duration of depression, total trauma scores with depression severity, age of onset, number of episodes, and duration of depression.

**Table 1:** Comparison of Sociodemographic data between cases and comparison group

	Cases <i>n</i> = 30	Control <i>n</i> = 30	Mann–Whitney <i>U</i> /Chi-square test
Age (in years)			
Mean ± SD	38 ± 9.51	34 ± 9.57	<i>Z</i> = −1.29
Median	40	34	<i>p</i> = 0.2
Years of formal education (in years)			
Mean ± SD	9 ± 4.12	10 ± 4.78	<i>Z</i> = −0.48
Median	10	10	<i>p</i> = 0.63
Religion			
Hindu	19 (63.3%)	30 (100%)	$\chi^2 = 15.0$ <i>p</i> < 0.000*
Muslim	11 (36.7%)	0	
Marital status			
Unmarried	1 (3.3%)	2 (6.7%)	
Married	26 (86.7%)	28 (93.3%)	
Married and separated	3 (10%)	0	
Occupation			
Skilled	4 (13.3%)	8 (26.7%)	
Semiskilled	3 (10%)	5 (16.7%)	
Unskilled	5 (16.7%)	4 (13.3%)	
Housewife	18 (60%)	13 (43.3%)	
Type of family			
Nuclear	26 (86.7%)	17 (56.7%)	$\chi^2 = 6.64$ <i>p</i> < 0.010*
Joint family	4 (13.3%)	13 (43.3%)	

\**p* < 0.05 is considered statistically significant

**DISCUSSION**

This case–control study was done to estimate the prevalence of childhood abuse in depressed female patients and to find the association between severity of childhood abuse and severity of depression. About 10% of the cases were married and separated and none from comparison group who were married were separated (refer Table 1). This could be because of the difficulty of childhood-abuse survivors in trusting others, which in turn could lead to difficulties in intimate relationship.<sup>8</sup>

Prevalence of childhood abuse in our study was higher in cases (60%) than comparison group (43%), but statistically was not found to be significant. The prevalence of childhood abuse in our study is almost similar to a study by Chapman et al. (65%). The prevalence of childhood abuse is varied in different studies and this could be because of the different questionnaires used, study population, recall bias, or stigma.<sup>9</sup>

**Clinical Variables and Childhood Abuse**

Comorbid medical illness among cases was higher (37.7%) than the comparison group (3.3%) in our study and this was statistically found to be significant. Diabetes mellitus, hypertension, and hypothyroidism were the common medical comorbidities found in our study. This finding is in line with the study by Norman et al. that childhood abuse can also cause physical health problems.<sup>10</sup> Past history of psychiatric illness was significantly higher among cases (30%) than comparison group (0). Depression was reported only among cases.

Family history of psychiatric illness, abuse between parents and psychiatric illness in parents was significantly higher among

**Table 2:** Comparison of clinical variables between cases and comparison group

Clinical variable	Cases n (%)	Comparison group n (%)	Chi-square test
Comorbid medical illness	11 (36.7)	1 (3.3)	$\chi^2 = 9.02$ $p < 0.003^*$
Past psychiatric history	9 (30)	0	$\chi^2 = 13.47$ $p < 0.001^*$
Family history of psychiatric illness	7 (23)	3 (10)	$\chi^2 = 2.78$ $p = 0.09$
Abuse by mother	1 (3.3)	1 (3.3)	
Abuse by father	1 (3.3)	1 (3.3)	
Abuse between parents	16 (53.3)	9 (41.7)	$\chi^2 = 3.36$ $p = 0.07$
Psychiatric illness in mother	3 (10)	1 (3.3)	
Psychiatric illness in father	19 (63.3)	13 (43.3)	$\chi^2 = 6.64$ $p = 0.01^*$

\*p-value less than 0.05 was considered statistically significant

**Table 3:** Description of childhood trauma scores among cases and comparison group

Domains of abuse	Cases	Comparison group	Mann-Whitney U test
Total score (5–125)			
Mean ± SD	36.73	30.43	$Z = -2.60$
Median	34	29	$p < 0.009^*$
Physical abuse (5–25)			$Z = -1.14$
Mean ± SD	6 ± 2.10	5.3 ± 0.8	$p < 0.25$
Median	5	5	
Emotional abuse (5–25)			$Z = -2.00$
Mean ± SD	8.6 ± 4.1	6.57 ± 2.5	$p < 0.05^*$
Median	7	5	
Sexual abuse (5–25)			$Z = -0.68$
Mean ± SD	5.47 ± 1.1	5.53 ± 1.1	$p < 0.49$
Median	5	5	
Physical neglect (5–25)			$Z = -0.32$
Mean ± SD	7.6 ± 3.72	7.23 ± 2.9	$p < 0.75$
Median	6	6	
Emotional neglect (5–25)			$Z = -3.34$
Mean ± SD	9.07 ± 4.54	6 ± 1.84	$p < 0.001^*$
Median	8.5	5	

\*p-value less than 0.05 was considered statistically significant

cases than comparison group (refer Table 2). This supports the study by Molnar et al. that family history of psychiatric illness, abuse between parents, and parental psychopathology are risk factors for development of depression in individuals with childhood sexual abuse.

The prevalence of physical abuse in our study was higher in cases (10%) than comparison group (6.7%). This prevalence is less compared with other studies, which could be explained by normalization of abuse seen in Indian subjects.<sup>2</sup>

The prevalence of emotional abuse was significantly higher in cases (40%) than the comparison group (13%) which is in line with other studies that support the hypothesis that emotional abuse is strongly related to depression.<sup>4,6</sup> Repeated emotional abuse leads to negative attribution about it, which gets generalized to life

events resulting in depression in adulthood.<sup>4</sup> Also, emotional abuse changes the child's inferential style regarding the consequences and self-characteristics.<sup>11</sup>

Severity of the abuse was higher in cases than comparison group but was not found to be statistically significant (refer Table 3). Increased severity among the cases supports the finding of graded relationship between severity of abuse and severity of depression.<sup>4,6</sup> Positive correlation was found between CTQ scores and the severity of depression in our study, which is in line with the above finding and explains the dose–response relationship between them.

On considering the number of types of abuse experience, multiple number of abuse was higher in cases than the comparison group. There was also a positive correlation between depression scores on HAM-D and number of types of abuse ( $r = 0.31, p = 0.05$ ). Studies show graded relationship between the number of types of abuse and onset, severity, and chronicity of depression.<sup>4,2,12</sup>

We found that CTQ total score was significantly positively correlated with severity of depression, age of onset, duration of depressive episode, and number of episodes of depression (refer Table 4). This is in line with the finding that increased severity of abuse leads to increased severity of depressive episode, increased duration of episodes, and increased rate of recurrence.<sup>4,6</sup>

There are multiple mediators linking childhood abuse with depression and its severity. Cognitive mediators like verbal criticism and emotional abuse lead to depressogenic self-schema. Neurobiological mediators include hypothalamo–pituitary–adrenal axis (HPA axis) dysregulation, hippocampal atrophy, atypical amygdalar activity, and decreased prefrontal activity. Childhood abuse is found to be negatively correlated with telomere length, which is a biomarker of chronic stress.<sup>13</sup> Mitochondrial biogenesis (index of cellular aging) is associated with childhood abuse and depression.<sup>14</sup> BDNF val66 molecular polymorphism and serotonin transporter polymorphism (5-HTTLPR) in individuals with childhood abuse predicts hippocampal atrophy, HPA-axis supersensitivity, and CRH hypersecretion, and is associated with depression.<sup>15,16</sup>

## STRENGTHS OF THE STUDY

It is a case–control study where the comparison group included those without depression and those without a vulnerability for depression. Standardized scale (CTQ) was used to assess childhood abuse. All five types of abuse were considered.

## LIMITATIONS OF THE STUDY

It is a cross-sectional retrospective study. Cases and comparison group were significantly different in terms of background, which can influence vulnerability for abuse. Use of self-report questionnaire to assess the childhood abuse retrospectively may have led to recall bias. The sample size is small in view of which generalizability is difficult.

## IMPLICATIONS OF THE STUDY

Childhood abuse is associated with depression. Hence, it is important to screen for the presence of childhood abuse and its severity in patients with depression. Adequate psychological support is needed for these individuals to develop adaptive coping strategies, which is important to increase resilience and decrease depressive symptoms.

**Table 4:** Correlation (Spearman) between depression-related variables and childhood-abuse domains

Variables	Statistics	HAM D scores	Age of onset	Number of episodes	Duration
Physical abuse score	<i>r</i>	0.13	0.02	0.10	-0.13
	<i>p</i>	0.24	0.46	0.29	0.25
Emotional abuse score	<i>r</i>	0.19	0.003	0.28	0.23
	<i>p</i>	0.16	0.49	0.07	0.11
Sexual abuse score	<i>r</i>	0.20	-0.09	-0.26	-0.34
	<i>p</i>	0.14	0.30	0.08	<b>0.03*</b>
Physical neglect score	<i>r</i>	0.33	-0.33	0.01	0.05
	<i>p</i>	<b>0.04*</b>	<b>0.04*</b>	0.47	0.40
Emotional neglect score	<i>r</i>	0.25	-0.03	0.06	0.09
	<i>p</i>	0.09	0.44	0.39	0.31
CTQ total score	<i>r</i>	0.37	0.28	0.34	0.36
	<i>p</i>	<b>0.002*</b>	<b>0.01*</b>	<b>0.004*</b>	<b>0.002*</b>

\**p*-value less than 0.05 was considered statistically significant; *r*, correlation coefficient; Bold values indicates the significance is less than 0.05

## CONCLUSION AND CLINICAL SIGNIFICANCE

There is high prevalence of childhood abuse among depressed female patients compared with healthy comparison group. The severity of childhood abuse was positively correlated with severity of depression. It is thus important to recognize childhood abuse in female patients with depression, which necessitates management with psychotherapy in addition to pharmacotherapy for depression.

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## REFERENCES

- Murphy JM, Laird NM, Monson RR, et al. A 40 year perspective on the prevalence of depression. The striling county study. *Arch Gen Psychiatry* 2000;57(3):209–215. DOI: 10.1001/archpsyc.57.3.209.
- Chapman DP, Whitfield CL, Felitti VJ, et al. Adverse childhood experiences and the risk of depressive disorders in adulthood. *J Affect Disord* 2004;82(2):217–225. DOI: 10.1016/j.jad.2003.12.013.
- Vitriol VG, Ballesteros ST, Florenzano RU, et al. Evaluation of an outpatient intervention for women with severe depression and a history of childhood trauma. *Psychiatr Serv* 2009;60(7):936–942. DOI: 10.1176/ps.2009.60.7.936.
- Negele A, Kaufhold J, Kallenbach L, et al. Childhood trauma and its relation to chronic depression in adulthood. *Depression Res Treat* 2015;50804. DOI: 10.1155/2015/650804.
- Bernet CZ, Stein MB. Relationship of childhood maltreatment to the onset and course of major depression in adulthood. *Depress Anxiety* 1999;9(4):169–174. PMID: 10431682.
- Nelson J, Klumpparendt A, Doebler P, et al. Childhood maltreatment and characteristics of adult depression: Meta-analysis. *Br J Psychiatry* 2017;210(2):96–104; Dube SR, Anda RF, Felitti VJ, et al. Growing up with parental alcohol abuse: exposure to childhood abuse, neglect, and household dysfunction. *Child Abuse Negl* 2001; 25(12):1627–1640. DOI: 10.1016/s0145-2134(01)00293-9.
- Kacker L, Mohsin N, Dixit A, et al. UNICEF. Study on child abuse: India, 2007: Ministry of Women and Child Development. Government of India. 2007:1–92.
- Colman RA, Widom CS. Childhood abuse and neglect and adult intimate relationships: A prospective study. *Child Abuse Negl* 2004;28(11):1133–1151. DOI: 10.1016/j.chiabu.2004.02.005.
- Jangam K, Muralidharan K, Tansa KA, et al. Incidence of childhood abuse among women with psychiatric disorders compared with healthy women: Data from a tertiary care centre in India. *Child Abuse Neglect* 2015;50:67–75. DOI: 10.1016/j.chiabu.2015.05.017.
- Norman RE, Byambaa M, De R, et al. The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. *PLoS Med* 2012; 9(11):e1001349. DOI: 10.1371/journal.pmed.1001349.
- Gibb BE, Chelminski I, Zimmerman M. Childhood emotional, physical, and sexual abuse, and diagnoses of depressive and anxiety disorders in adult psychiatric outpatients. *Depress Anxiety* 2007;24(4):256–263. DOI: 10.1002/da.20238.
- Springer KW, Sheridan J, Kuo D, et al. Long-term physical and mental health consequences of childhood physical abuse: Results from a large population-based sample of men and women. *Child Abuse and Negl* 2007;31(5):517–530. DOI: 10.1016/j.chiabu.2007.01.003.
- Weiss EL, Longhurst JG, Mazure CM. Childhood sexual abuse as a risk factor for depression in women: Psychosocial and neurobiological correlates. *Am J Psychiatry* 1999;156(6):816–828. <https://doi.org/10.1176/ajp.156.6.816>.
- Heim CM, Mayberg HS, Mletzko T, et al. Decreased cortical representation of genital somatosensory field after childhood sexual abuse. *Am J Psychiatry* 2013;170(6):616–623. DOI: 10.1176/appi.ajp.2013.12070950.
- Binder EB, Bradley RG, Liu W, et al. Association of FKBP5 polymorphisms and childhood abuse with risk of posttraumatic stress disorder symptoms in adults. *JAMA* 2008;299(11):1291–1305. DOI: 10.1001/jama.299.11.1291.
- Shalev I, Moffitt TE, Sugden K, et al. Exposure to violence during childhood is associated with telomere erosion from 5 to 10 years of age: A longitudinal study. *Mol Psychiatry* 2013;18(5):576–581. DOI: 10.1038/mp.2012.32.