



ORIGINAL RESEARCH PAPER

Psychiatry

CHILDHOOD ADVERSITIES AND FIRST ONSET OF DEPRESSION IN A GENERAL HOSPITAL PSYCHIATRY UNIT.

KEY WORDS: Childhood adversities, Depression, Gender

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ABSTRACT
Introduction: There is a growing interest in the co-occurring natures of adverse childhood experiences (ACEs) and onset of Depression in adults. Conflicting evidence on the nature and number of ACEs, necessitated this study with an aim to understand the associations of retrospectively reported childhood adversities with first onset of Depression across the life course. **Method:** A total of 120 depressive subjects of either gender in the age group of 18-60 years were evaluated. Basic socio-demographic and clinical variables were recorded in a specifically designed composite socio-demographic proforma and a diagnosis as per International Classification of Diseases, Tenth Revision (ICD-10) was made, this was further validated by using MINI international neuropsychiatric interview (MINI Plus 5.0). Adverse childhood life events were assessed by using the Adverse Childhood Experience scale (ACE) questionnaire. **Results & Conclusion:** More than two-thirds of depressed male and female patients had experienced childhood adversities. Both genders had moderate levels of depression and majority had more than one ACEs. The study emphasized the importance of early identification and multi-modal mitigation strategies to eliminate or reduce ACEs and hence its outcome.

INTRODUCTION:

Childhood is an important period for the overall psychosocial and cognitive development of an individual, given the high degree of brain plasticity that facilitates learning and adaptation to the environment in this phase of development.^[1] However, early life Childhood Adversities (CA) during periods of heightened plasticity may alter developmental trajectories via complex neurobiological and stress-mediated mechanisms that, in turn, increase the risk of emotional and behavioural difficulties in future.^[2] CA encompasses a wide range of experiences such as psychosocial and material neglect, exposure to intimate partner violence, and physical, sexual, and emotional abuse. Some of these experiences involve the presence of threatening inputs (e.g., abuse), while others reflect the absence of expectable inputs (e.g., neglect).^[3] Significant associations between retrospectively reported CA and Depression have been documented in numerous epidemiological studies.^[4,5] According to the literature, 75% of depressed patients experience at least one category of CA.^[6] Most of these studies, however, either considered only a single childhood adversity or a composite measure that did not allow differential effects of multiple childhood adversities to be examined. The present study aims to address these problems by examining the prevalence and associations of retrospectively reported childhood adversities with first onset of Depression across the life course.

MATERIALS & METHODS:

This was a cross-sectional hospital-based study.

Sample Size:

A statistical power analysis was performed for sample size estimation. With an alpha = 0.05 and power = 0.85, the projected sample size needed with an effect size = 0.25 was approximately N = 113 for this simplest between/within group comparison. The sample size was rounded off to 120 (N).

Sample Procedure:

Out of the total 135 subjects who were screened, a total of 120 (N), were included in the study after obtaining a written informed consent. Selected subjects were independently screened by one of the authors in the department of

psychiatry (Dr.KK). Basic socio-demographic and clinical variables were recorded in a specifically designed composite socio-demographic proforma and a diagnosis as per International Classification of Diseases, Tenth Revision (ICD-10) was made, this was further validated by using MINI international neuropsychiatric interview (MINI Plus 5.0). Adverse childhood life events were assessed by using the Adverse Childhood Experience scale (ACE) questionnaire.

Data was tabulated using Microsoft Excel 2019. For continuous variables, univariate statistics as means and standard deviations was used and percentages for categorical variables.

RESULTS:

A total of 120 depressive subjects were evaluated. Both genders were equally distributed (n=50 each). Mean age of the sample was 40 ± 5.2 years. Majority of the study participants were from urban domicile [81(67.5%)], most of them were Hindu by religion [78 (65%)], majority were married [82 (68.3%)] and belonged to Middle SES [100 (83.3%)]. (Table 1)

A total of 60.8% of depressed subjects had experienced ACEs and among them 68.3% of males and 53.3% of females had ACEs. (Table 2)

Among male depressed subjects with ACEs, majority of them [24 (58.5%)], had moderate depressive episode and among female depressed subjects who experienced ACEs, majority of them [21 (63.6%)] again had moderate depressive episode. (Table 3)

About 8.3% of depressed individuals with ACEs had alcohol abuse, about 24 of them (21%) had attempted suicide in the past and majority of them [79 (65.8%)] had poor to moderate family support. (Table 5)

DISCUSSION:

In the current study, the prevalence of childhood adversity and its link to depression severity were explored both in male and female patients who have been diagnosed with depression.

As the median age of respondents was 40 ± 5.2 years, the positive association of the ACE score with recent depressive symptoms suggests the consequences of ACEs persist for several decades after their occurrence. This observation thus extends previous findings of increased depressive symptomatology among abused children and suggests that the depressogenic potential of child abuse extends far into adulthood.

A total of 60.8% of depressed subjects had experienced one or more Adverse Childhood Experiences (ACEs). Worldwide, the majority of individuals (57%) experience at least one ACE.^[7] Adverse Childhood Experiences are a common pathway to adult depression. Studies reports that ACEs do not occur in isolation. Different types of adversity experiences are interrelated, and the majority of those with any exposure had multiple forms of ACEs.^[8,9] Similarly in our study 18.3% of males and 16.6% of females had more than 3+ adversities interrelated leading to depressive episode. Abundant studies have reported significant relationships between ACEs and social (e.g., school outcomes, self-esteem, and homelessness), behavioral (e.g., heavy alcohol or drug use; violence perpetration and victimization, and suicidal behavior), and health outcomes (e.g., obesity, diabetes, cardiovascular disease, cancer, depression, and anxiety).^[10,11] Hypothetically, early adversities show a graded relationship to these outcomes, that is, the effect intensifies as the cumulative number of experiences increases.^[12]

Several studies have demonstrated that the risk of depression/depressive symptoms increased as the number of adversities incremented.^[13] Using the Kaiser-CDC ACE data, Felitti and his colleagues^[14] presented that the odds of having a depressed mood/feeling was more than three times higher for adults with four or more ACEs than those without any past adversity. In our study, a total of 60.8% of depressed subjects had experienced ACEs and among them 68.3% of males and 53.3% of females had ACEs. Recent evidence indicates an additional impact of timing of ACEs on health outcomes in adulthood, suggesting that there may be a stress sensitive period in a child's brain development.^[15,16]

The current study also evaluated the occurrence of childhood adversity in male and female patients diagnosed with depression and its relationship to the severity of depression. Consistent with our hypothesis and literature, the majority of male (82%) and female (66%) patients had experienced ACEs. In our study, among male depressed subjects with ACEs, majority of them [24 (58.5%)], had moderate depressive episode and among female depressed subjects who experienced ACEs, majority of them [21 (63.6%)] again had moderate depressive episode. Three or more categories of childhood adversity were present in 17.5% of our patients. Our sample has fewer patients reporting multiple categories of ACEs, which may indicate that either fewer occurrence of ACEs or less disclosure.

Adverse childhood experiences (ACEs), measured by the ACE questionnaire and classified as abuse, neglect, household dysfunction, and community dysfunction, are a common pathway to long-term social, emotional, and cognitive impairments, including depression.^[14,17] In our study, "Violence between adults in household" was the commonest type of ACE (25.5%), followed by "Physical abuse" in 19.6% and then "Emotional abuse" in 13.8%. Besides studying the frequency of ACEs, the type of adversity has also been investigated and literature shows conflicting reports. While some studies have reported neglect and emotional abuse linked to depression, another study has said that any form of adversity can cause depression.^[18]

While our study confirms the role of ACE, its frequency, and its type implicated in depression, it has also revealed some differences across gender. This should be interpreted by

keeping the limitation that this was a hospital-based cross-sectional study using a convenience sample and self-reported scales. Future research including prospective studies in the Indian context with a larger sample would provide more clarity.

CONCLUSION:

In conclusion, our research reveals that more than two-thirds of depressed male and female patients have experienced childhood adversities. Both genders had moderate levels of depression and majority had more than one ACEs. This highlights the need to inquire and treat ACEs in patients suffering from depression. Multisectoral efforts to reduce or eliminate the occurrence of ACEs and its impact are required.

Conflict of Interest: Nil

Table 1: Socio-demographic details of study population

Socio-demographic Variable	Number (n)	Percentage (%)
Gender		
Male	60	50
Female	60	50
Domicile		
Rural	39	32.5
Urban	81	67.5
Religion		
Hindu	78	65
Muslim	33	27.5
Christians	9	7.5
Marital Status		
Married	82	68.3
Unmarried	36	30
Divorced / Separate	2	1.7
Socio-economic status		
Upper	3	2.5
Upper middle	48	40
Lower middle	52	43.3
Upper lower	9	7.5
Lower	8	6.7

Table 2: Frequency of Adverse Childhood Experiences (ACEs)

ACEs frequency	Male		Female		Total	
	Numbr (n)	Percent age (%)	Numbr (n)	Percent age (%)	Numbr (n)	Percent age (%)
0 ACEs	19	31.7	28	46.7	47	39.2
1-2	30	50	22	36.7	52	43.3
3+	11	18.3	10	16.6	21	17.5
Total (N)	60	100	60	100	120	100

Table 3: Depression severity Among ACE positives

Depression severity Among ACE positives	Male		Female		Total	
	Numbr (n)	Percent age (%)	Numbr (n)	Percent age (%)	Numbr (n)	Percent age (%)
Mild	3	7.3	2	6.1	5	6.8
Moderate	24	58.5	21	63.6	45	60.8
Severe	13	31.7	8	24.2	21	28.4
Very severe	1	2.4	2	6.1	3	4
Total (N)	41	100	33	100	74	100

Table 4: Type of Adverse Childhood Experiences (ACEs)

ACEs type	Male		Female		Total	
	Numbr (n)	Percent age (%)	Numbr (n)	Percent age (%)	Numbr (n)	Percent age (%)
Parents/guardians understand your problems and worries?	3	5.2	4	9.1	7	6.9
Substance abuse in household	5	8.6	2	4.5	7	6.9

Mentally illness in household	4	6.9	3	6.8	7	6.9
Parental separation or divorce	3	5.2	2	4.5	5	4.9
Death of Parent/s, Guardian	2	3.5	1	2.3	3	2.9
Violence between adults in household	13	22.4	13	29.5	26	25.5
Violence to family members by others	1	1.7	0	0	1	1
Physical abuse	11	18.9	9	20.5	20	19.6
Emotional abuse	8	13.8	6	13.6	14	13.8
Sexual abuse	2	3.5	1	2.3	3	2.9
Peer Violence	3	5.2	1	2.3	4	3.9
Witness any violence	1	1.7	1	2.3	2	1.9
Incarcerated household member	2	3.4	1	2.3	3	2.9
Total (N)	58	100	44	100	102	100

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Table 5: Clinical Variables Associated with Depression

Clinical Variables	Number (n)	Percentage (%)
H/o Substance abuse		
Nicotine	8	6.7
Cannabis	0	0
Alcohol	10	8.3
Others	0	0
None	102	85
H/o Suicidal Attempts		
0	96	80
1	14	11.7
2	6	6
>3	4	3.3
Family Support		
Poor	27	22.5
Moderate	52	43.3
Good	41	34.2
Social Support		
Poor	29	24.2
Moderate	45	37.5
Good	46	38.3
Family history of Depression		
Yes	23	19.2
No	97	80.8
Psychiatric Comorbidities		
Yes	11	9.2
No	120	90.8

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