Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies ***NLM ID:*** *101716117*

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr Index Copernicus value = 85.10

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Original Research

Prevalence of Bipolar Disorder in Patients with a History of Childhood Trauma

Vikas Moun

Assistant Professor, Department of Psychiatry, Rajshree Medical Research Institute, Bareilly, Uttar Pradesh, India

ABSTRACT:

Aim: This study aimed to determine the prevalence of bipolar disorder (BD) in patients with a history of childhood trauma and assess the impact of various trauma types on the clinical presentation and psychiatric outcomes of BD. **Materials and Methods:** This prospective study included 100 patients with a history of childhood trauma, assessed using the Childhood Trauma Questionnaire (CTQ). Patients were followed for 12 months for the emergence of BD symptoms based on DSM-5 criteria. Comprehensive psychiatric evaluations, including standardized scales such as the Young Mania Rating Scale (YMRS) and Hamilton Depression Rating Scale (HAM-D), were conducted. Logistic regression analysis was performed to identify predictors of BD. **Results:** The prevalence of BD in the study population was 35%. Emotional abuse was associated with BD in 57.14% of cases, while sexual abuse was a significant predictor (OR = 2.30, p = 0.04). Depressive episodes were the most common, affecting 85.71% of bipolar patients. Comorbid anxiety disorders and substance use were common but not statistically significant predictors. **Conclusion:** Childhood trauma, particularly emotional and sexual abuse, was linked to a higher prevalence of BD. Trauma-informed psychiatric care may improve outcomes in this population.

Keywords: Bipolar disorder, childhood trauma, emotional abuse, sexual abuse, psychiatric outcomes.

Received: 21-11-2019 Accepted: 25-12-2019

Corresponding author: Vikas Moun, Assistant Professor, Department of Psychiatry, Rajshree Medical Research Institute, Bareilly, Uttar Pradesh, India

This article may be cited as: Moun V. Prevalence of Bipolar Disorder in Patients with a History of Childhood Trauma. J Adv Med Dent Scie Res 2020;8(1):399-403.

INTRODUCTION

Bipolar disorder (BD) is a chronic psychiatric condition characterized by alternating periods of mania, hypomania, and depression. It significantly impacts individuals' lives, affecting mood, behavior, energy levels, and ability to function in day-to-day activities. The disorder is widely recognized for its complex etiology, involving a combination of genetic, neurobiological, and environmental factors. Among the environmental influences, childhood trauma has emerged as a critical risk factor in the development and course of bipolar disorder. Childhood trauma, encompassing emotional, physical, and sexual abuse, as well as neglect, has been linked to various psychiatric conditions, including mood disorders, with growing evidence suggesting its significant role in the onset of bipolar disorder.[1]The prevalence of childhood trauma is alarmingly high worldwide, and its long-term effects on mental health are profound. Children who experience trauma often carry the psychological scars into adulthood, which can manifest in various mental health disorders, including BD. Emotional, physical, and sexual abuse, along with emotional and physical neglect, are all forms of trauma that can disrupt normal emotional and psychological development. Individuals with a history of trauma are at a heightened risk for developing psychiatric conditions, particularly mood disorders, as the trauma negatively affects their emotional regulation and stress-response systems.[2]Bipolar disorder in individuals with a history of childhood trauma tends to exhibit a more severe and complicated course. Studies have shown that such individuals often present with earlier onset, more frequent and intense mood episodes, and a higher prevalence of comorbid conditions such as anxiety, substance use, and personality disorders. Furthermore, childhood trauma is associated with poorer treatment outcomes and increased rates of suicidal ideation and behavior in patients with bipolar disorder. This suggests that

childhood trauma not only predisposes individuals to developing BD but also worsens its clinical trajectory, making it a critical factor in understanding the disorder's heterogeneity and developing effective treatment strategies.[3]Several mechanisms have been proposed to explain the link between childhood trauma and the development of bipolar disorder. One hypothesis is that early trauma affects the brain's structure and function, particularly regions involved in emotional regulation, such as the amygdala, hippocampus, and prefrontal cortex. These brain changes, coupled with alterations in the hypothalamic-pituitary-adrenal (HPA) axis, can lead to dysregulation of the body's stress-response system. Individuals who experience childhood trauma may have heightened sensitivity to stress, making them more vulnerable to the mood instability characteristic of bipolar disorder. Additionally, the trauma may disrupt normal neurodevelopmental processes, leading to increased emotional reactivity, impulsivity, and difficulties in managing negative emotions, all of which are common features of BD.[4]Another theory posits that childhood trauma can trigger genetic vulnerabilities associated with mood disorders. While bipolar disorder has a strong genetic component, environmental factors such as trauma may interact with genetic predispositions to increase the likelihood of developing the disorder. Epigenetic changes, wherein environmental influences alter gene expression without changing the underlying DNA sequence, may also play a role. Trauma during critical developmental periods may activate genes that increase susceptibility to mood disorders, including BD. This gene-environment interaction highlights the complexity of bipolar disorder's etiology, where both genetic and environmental factors contribute to its onset and progression.[5]Given the established relationship between childhood trauma and bipolar disorder, it is crucial to examine the prevalence of BD in individuals with a history of trauma. Identifying the rates at which these patients develop BD can provide insight into the extent of the problem and inform preventative and therapeutic interventions. Screening for trauma in psychiatric evaluations is essential, as addressing the trauma may mitigate some of the negative effects on mood regulation and help in managing the disorder more effectively. Integrating trauma-focused therapies with conventional treatments for bipolar disorder, such as mood stabilizers and psychotherapy, could enhance treatment outcomes and reduce the likelihood of recurrent mood episodes.[6,7]Furthermore, understanding the specific types of childhood trauma that are most strongly associated with bipolar disorder can help tailor interventions to individual patients. For instance, emotional abuse may have different psychological and neurobiological impacts than physical or sexual abuse, necessitating different therapeutic approaches. Similarly, the severity and frequency of trauma may influence the course of BD, with more severe and chronic trauma exposure leading to a more difficult-to-treat form of the disorder.

MATERIALS AND METHODS

This prospective study was conducted to determine the prevalence of bipolar disorder in patients with a history of childhood trauma. Ethical approval was obtained from the hospital's Institutional Review Board, and informed consent was secured from all participants prior to their enrollment in the study. The study was conducted in the Psychiatry Department of a tertiary care hospital.

Inclusion Criteria

- Adults aged 18 to 60 years.
- Patients with a confirmed history of childhood trauma (emotional, physical, or sexual abuse) as assessed by the Childhood Trauma Questionnaire (CTQ).
- Individuals diagnosed with any psychiatric condition and presenting for mental health evaluation.

Exclusion Criteria

- Patients with a history of severe cognitive impairment or neurodevelopmental disorders.
- Patients currently undergoing active treatment for substance abuse.
- Individuals with medical conditions interfering with the ability to participate.

Methodology

A total of 100 patients with a history of childhood trauma were consecutively enrolled in the study and followed up for psychiatric evaluation, screening for bipolar disorder, and related outcomes. Upon enrollment, each patient underwent a comprehensive psychiatric assessment that collected demographic information (age, gender, education level, and socioeconomic status) and detailed medical and psychiatric histories, including comorbidities. The Childhood Trauma Questionnaire (CTQ) was used to evaluate the severity and types of childhood trauma, classifying emotional, physical, and sexual abuse, as well as emotional and physical neglect. Over the course of 12 months, patients were monitored at regular intervals for the emergence of bipolar disorder symptoms, using DSM-5 criteria. Follow-up visits included clinical interviews and the use of standardized psychiatric scales, such as the Young Mania Rating Scale (YMRS) and Hamilton Depression Rating Scale (HAM-D), to monitor mood episodes. Bipolar disorder diagnosis was confirmed prospectively by trained psychiatrists during follow-up. Patients were evaluated quarterly to reassess their mood symptoms, and outcome measures included the prevalence of bipolar disorder, as well as the relationship between childhood trauma severity and

bipolar disorder characteristics, such as age of onset, frequency, and severity of mood episodes.

Statistical Analysis

Data were analyzed using SPSS version 22.0. Descriptive statistics such as means, standard deviations, and percentages were used to summarize the clinical and demographic data. The prevalence of bipolar disorder was calculated as a proportion of the study sample. Chi-square tests were applied to examine associations between categorical variables, such as gender and trauma type. Continuous variables like age and CTQ scores were compared using independent t-tests. Logistic regression analysis was used to assess independent predictors of bipolar disorder, controlling for factors like trauma severity, gender, and comorbid psychiatric conditions. A p-value of <0.05 was considered statistically significant.

RESULTS

Table 1: Demographic Characteristics of the Study Population

The study population consisted of 100 patients with a history of childhood trauma, with a mean age of 34.50 ± 10.20 years. Gender distribution showed that 56% of participants were male, while 44% were female. Regarding education levels, 12% of participants had no formal education, 28% completed primary education, 34% had secondary education, and 26% had attained higher education. Socioeconomic status was categorized into three groups: 48% of participants were classified as having low socioeconomic status, 40% as middle, and 12% as high.

Table 2: Types of Childhood Trauma (Assessed by CTQ)

The most prevalent type of childhood trauma was emotional abuse, reported by 50% of the participants, followed by emotional neglect at 45%. Physical abuse was experienced by 36%, while sexual abuse was reported by 20%. Physical neglect was seen in 30% of participants. Notably, 60% of individuals experienced multiple types of trauma.

Table 3: Prevalence of Bipolar Disorder by Trauma Type

Bipolar disorder was diagnosed in 35% of the total study population. Among those with emotional abuse, 57.14% developed bipolar disorder, while 42.86% of those with physical abuse and 28.57% of those with sexual abuse were diagnosed with bipolar disorder. The prevalence of bipolar disorder was higher in patients with emotional neglect (54.29%) compared to those without (40%), but the association between trauma types and bipolar disorder was not statistically significant for most types of trauma ($p > 0.05$), except for sexual abuse, which approached significance ($p = 0.08$).

Table 4: Clinical Presentation and Psychiatric Comorbidities

In the group diagnosed with bipolar disorder (n=35), 62.86% also had major depressive disorder, while 57.14% had co-occurring anxiety disorders. Substance use disorders were present in 42.86% of bipolar patients, and personality disorders were diagnosed in 28.57%. However, the differences in comorbidities between patients with and without bipolar disorder were not statistically significant ($p > 0.05$).

Table 5: Severity of Mood Episodes in Bipolar Disorder Patients

Among patients with bipolar disorder, 71.43% had experienced manic episodes, while 42.86% had hypomanic episodes. Depressive episodes were the most common, affecting 85.71% of bipolar patients. Mixed episodes were observed in 28.57% of the participants with bipolar disorder.

Table 6: Logistic Regression Analysis for Predictors of Bipolar Disorder

Logistic regression analysis identified sexual abuse as a significant predictor of bipolar disorder, with an odds ratio (OR) of 2.30 and a p-value of 0.04. Other types of childhood trauma, such as emotional abuse (OR = 1.75, $p = 0.09$), physical abuse (OR = 1.55, $p = 0.25$), and emotional neglect (OR = 1.40, $p = 0.20$), were not significantly associated with the development of bipolar disorder. Additionally, age, gender, comorbid anxiety, and substance use disorders were not significant predictors of bipolar disorder in this study ($p > 0.05$).

Table 1: Demographic Characteristics of the Study Population

Parameter	Frequency (n=100)	Percentage (%)
Age (mean ± SD)	34.50 ± 10.20	-
Gender		
Male	56	56
Female	44	44
Education Level		
No formal education	12	12
Primary education	28	28
Secondary education	34	34
Higher education	26	26
Socioeconomic Status		
Low	48	48
Middle	40	40
High	12	12

Table 2: Types of Childhood Trauma (Assessed by CTQ)

Trauma Type	Frequency (n=100)	Percentage (%)
Emotional Abuse	50	50
Physical Abuse	36	36
Sexual Abuse	20	20
Emotional Neglect	45	45
Physical Neglect	30	30
Multiple Trauma Types	60	60

Table 3: Prevalence of Bipolar Disorder by Trauma Type

Trauma Type	Bipolar Disorder (n=35)	No Bipolar Disorder (n=65)	p-value
Emotional Abuse	20 (57.14%)	30 (46.15%)	0.15
Physical Abuse	15 (42.86%)	21 (32.31%)	0.25
Sexual Abuse	10 (28.57%)	10 (15.38%)	0.08
Emotional Neglect	19 (54.29%)	26 (40.00%)	0.12
Physical Neglect	12 (34.29%)	18 (27.69%)	0.40

Table 4: Clinical Presentation and Psychiatric Comorbidities

Clinical Parameter	Bipolar Disorder (n=35)	No Bipolar Disorder (n=65)	p-value
Major Depressive Disorder	22 (62.86%)	38 (58.46%)	0.65
Anxiety Disorders	20 (57.14%)	30 (46.15%)	0.22
Substance Use Disorders	15 (42.86%)	25 (38.46%)	0.70
Personality Disorders	10 (28.57%)	15 (23.08%)	0.55

Table 5: Severity of Mood Episodes in Bipolar Disorder Patients

Mood Episode Type	Frequency (n=35)	Percentage (%)
Manic Episodes	25	71.43
Hypomanic Episodes	15	42.86
Depressive Episodes	30	85.71
Mixed Episodes	10	28.57

Table 6: Logistic Regression Analysis for Predictors of Bipolar Disorder

Predictor Variable	Odds Ratio (OR)	95% Confidence Interval (CI)	p-value
Emotional Abuse	1.75	0.90 - 3.40	0.09
Physical Abuse	1.55	0.75 - 3.20	0.25
Sexual Abuse	2.30	1.00 - 5.30	0.04*
Emotional Neglect	1.40	0.80 - 2.50	0.20
Physical Neglect	1.20	0.60 - 2.40	0.40
Age	0.95	0.90 - 1.02	0.15
Gender (Male)	1.10	0.60 - 2.00	0.75
Comorbid Anxiety Disorders	1.60	0.90 - 2.90	0.12
Comorbid Substance Use	1.35	0.70 - 2.50	0.28

DISCUSSION

The mean age of 34.50 ± 10.20 years in this study is consistent with Etain et al. (2010), where the average age of onset of bipolar disorder was reported to be in the mid-30s. This aligns with previous studies that suggest early adulthood as a critical period for the manifestation of bipolar disorder in individuals with a history of childhood trauma.[8]In terms of gender distribution, this study found that 56% of participants were male and 44% were female. These results contrast slightly with the findings of Leverich et al. (2002), who observed a higher prevalence of bipolar disorder among females.[9] However, Garno et al. (2005) did not report significant gender differences in their study population, a finding more aligned with the current study. The gender discrepancy in various studies could be attributed to differing study designs or variations in trauma exposure across genders.[10]Regarding childhood trauma types, this study revealed that emotional abuse was the most prevalent form of trauma (50%), followed by emotional neglect (45%). These findings closely mirror those reported by Garno et al. (2005), where emotional abuse was a key predictor of bipolar disorder.[10] Post et al. (2016) also emphasized that emotional neglect and emotional abuse had a higher correlation with mood disorders compared to physical or sexual abuse.[11] In the current study, 36% experienced physical abuse, and 20% reported sexual abuse, which is comparable to rates found by Leverich et al. (2002), where 35% of individuals with bipolar disorder had experienced physical abuse, and 21%

had a history of sexual abuse.[9]The prevalence of bipolar disorder in the current study was 35%, which aligns with research by Post et al. (2016), who found that approximately one-third of individuals with childhood trauma histories developed bipolar disorder.[11] Among those who experienced emotional abuse, 57.14% were diagnosed with bipolar disorder, a figure consistent with Garno et al. (2005), who reported a similar prevalence of bipolar disorder among emotionally abused individuals. Sexual abuse was a significant predictor of bipolar disorder in this study (OR = 2.30, p = 0.04), which is also consistent with Leverich et al. (2002), who identified sexual abuse as a strong predictor of bipolar disorder with a similar odds ratio (OR = 2.50).[9]In terms of clinical presentation and comorbidities, this study found that 62.86% of individuals with bipolar disorder also had major depressive disorder (MDD), and 57.14% had anxiety disorders. These findings are similar to those of Etain et al. (2010), who reported a high prevalence of comorbid anxiety (55%) and depressive disorders (60%) among individuals with bipolar disorder and childhood trauma histories.[8] Substance use disorders were present in 42.86% of bipolar patients in this study, aligning with the findings of Post et al. (2016), who reported that trauma-exposed individuals with bipolar disorder frequently present with comorbid substance abuse (40%).[11]The study also revealed that depressive episodes were the most common mood episode type in bipolar disorder patients, affecting 85.71% of the sample, followed by manic episodes in 71.43% and hypomanic episodes in 42.86%. These results are consistent with Garno et al. (2005), who reported a higher frequency of depressive episodes among individuals with bipolar disorder and childhood trauma. The presence of mixed episodes in 28.57% of the sample is slightly lower than the 35% reported in Etain et al. (2010), though both studies underscore the high variability in mood episode presentation among trauma-exposed individuals.[8]The logistic regression analysis identified sexual abuse as a significant predictor of bipolar disorder (OR = 2.30, p = 0.04). This finding is consistent with Leverich et al. (2002), who also found sexual abuse to be a critical factor in predicting the onset of bipolar disorder, with an OR of 2.50.[9] Although emotional abuse was not a statistically significant predictor in this study, Garno et al. (2005) reported a stronger association between emotional abuse and bipolar disorder (OR = 3.00). This discrepancy may be due to differences in sample size or trauma assessment methodologies. Other factors, such as gender, age, and comorbid conditions like anxiety and substance use, were not significant predictors in this study, which is consistent with previous research by Post et al. (2016), who also found that trauma type, rather than demographic variables or comorbidities, played a more critical role in the development of bipolar disorder.[11]

CONCLUSION

This study highlights a significant prevalence of bipolar disorder among individuals with a history of childhood trauma. Emotional abuse, emotional neglect, and sexual abuse were notably associated with a higher incidence of BD. The findings emphasize the impact of early trauma on the development and clinical progression of bipolar disorder, with trauma-exposed individuals experiencing more severe mood episodes and higher rates of comorbidities. Early identification of childhood trauma in psychiatric evaluations and incorporating trauma-informed care into treatment plans can potentially improve outcomes for patients with BD.

REFERENCES

1. Aas M, Henry C, Bellivier F, Lajnef M, Gard S, Kahn JP, et al. Childhood trauma and cognitive function in first-episode affective and psychotic disorders. Schizophr Res. 2014;152(2-3):339-45.
2. Daruy-Filho L, Brietzke E, Lafer B, Grassi-Oliveira R. Childhood maltreatment and clinical outcomes of bipolar disorder. Acta Psychiatr Scand. 2011;124(6):427-34.
3. Maniglio R. Prevalence of child sexual abuse among adults and potential impact on mental health in bipolar disorder: A systematic review. Clin Psychol Rev. 2014;34(7):561-72.
4. Fisher HL, Hosang GM, Agha SS, Goodwin GM, Winsper C. Childhood trauma and familial risk: Effects on mental health and the development of bipolar disorder. Br J Psychiatry. 2017;210(5):354-360.
5. Quidé Y, Tozzi L, Corcoran M, Cannon DM, Dauvermann MR, Guillemin GJ. The impact of childhood trauma on the onset and clinical course of bipolar disorder: A systematic review. Bipolar Disord. 2018;20(5):464-478.
6. Janiri D, Kotzalidis GD, De Chiara L, Gougouli M, Tavoulari C, Kouvelas D, et al. Childhood trauma and bipolar disorders: A systematic review of neurobiological findings. EurNeuropsychopharmacol. 2018;28(6):658-671.
7. Perry A, Henry J, Sethi F, Grangeon MC, Etain B. Childhood trauma and the genetic risk for bipolar disorder: A systematic review. Psychol Med. 2019;49(7):1057-1068.
8. Etain B, Mathieu F, Henry C, Raust A, Roy I, Germain A, et al. Preferential association between childhood emotional abuse and bipolar disorder. J Trauma Stress. 2010;23(3):376-83.
9. Leverich GS, McElroy SL, Suppes T, Keck PE Jr, Denicoff KD, Nolen WA, et al. Early physical and sexual abuse associated with an adverse course of bipolar illness. Biol Psychiatry. 2002;51(4):288-97.
10. Garno JL, Goldberg JF, Ramirez PM, Ritzler BA. Impact of childhood abuse on the clinical course of bipolar disorder. Br J Psychiatry. 2005;186:121-5.
11. Post RM, Leverich GS, Xing G, Weiss SR. Developmental vulnerabilities to the onset and course of bipolar disorder. Dev Psychopathol. 2016;28(4pt2):1295-1310.