Childhood Trauma and Resilience as Influencing Factors on Impulsivity Among Patients with Bipolar Disorders

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ABSTRACT

Background: Childhood trauma triggers exacerbate and cause the recurrence of various psychiatric diseases, including bipolar disorder. Childhood trauma in individuals diagnosed with bipolar disorder has been linked to an increased severity of manic and depressive episodes, as well as psychotic symptoms. Additionally, these patients often experience a higher prevalence of comorbid conditions such as substance abuse, post-traumatic stress disorder, and anxiety disorders. **Aim of the study:** The study aimed to investigate the effect of childhood trauma and resilience on impulsivity among patients with bipolar disorder. **Subjects and methods: Research design:** Descriptive correlational research design was used. **Setting:** The study was conducted in the Psychiatric Outpatient Clinics at Zagazig University Hospitals in Egypt. **Subjects**: A purposive sample, which included 100 patients with bipolar disorder. **Tools of data collection:** four tools, namely: Demographic interview sheets, Childhood Trauma Questionnaire, Resilience Scale, and Barratt Impulsivity Scale were requested to be completed by the participants. **Results:** Highly statistically significant negative correlations were found between resilience and both childhood trauma and impulsivity. However, a highly statistically significant positive correlation was found between childhood trauma and impulsivity. **Conclusion:** Childhood trauma was a significant positive predictor of higher impulsivity, while Resilience was a significant negative predictor of higher impulsivity. **Recommendation:** psychosocial intervention that address childhood trauma and/or associated affective consequences, like eye movement desensitization and reprocessing or trauma-focused cognitive and behavioral therapy, may be included.

Keywords: Bipolar disorder, Childhood trauma, Impulsivity, Resilience.

Introduction

Bipolar disorder is a severe, chronic mental illness that alternates between the diametrically opposed states of mania and depression, was once known as manic-depressive disorder **(Guerrera et al, 2024).** According to the DSM-5, people who have this illness may go between phases of intense melancholy, sluggishness, and hopelessness, followed by times of feeling happier, more energetic, and

less in need of sleep. Millions of people worldwide are impacted by the disorder, which impacts their everyday functioning, relationships, and quality of life. In America, it ranks as the sixth most common cause of disability, and globally, it is the most common cause of mental disorders **(Xu, 2023).** As well, it is affecting about 1–2% of the general population, and it is characterized by mood recurrences, in which depressive episodes alternate with manic or hypomanic episodes **(Bartoli et al., 2024).**

While manic episodes are marked by heightened irritability and impulsive actions directed towards specific goals, euphoric behaviors may exhibit similarities to psychotic symptoms **(Mada, 2024).** Unlike manic periods, depressive episode is marked by increased melancholy and pessimism as well as moments of hopelessness. Additionally, impulsivity is a sign of mania in bipolar disorder (BD), which is characterized by a propensity for quick, spontaneous reactions without considering the implications for oneself or others **(Santana et al., 2022).** Bipolar disorder encompasses a variety of genetic, environmental, biological, and psychological risk factors that are linked to childhood trauma **(Robinson and Bergen, 2021).**

Childhood trauma can take many forms and affect people throughout their lives, with long-term effects on both mental and physical health. The psychological effects of an abrupt, external traumatic incident or a string of traumatic episodes are referred to as childhood trauma. The term "complex trauma" describes recurrent and protracted early traumatic events in attachment bonds. Sexual, physical, or emotional abuse during childhood or adolescence is considered complex trauma **(Greenman et al., 2024).** So, bipolar disorder is one of the many mental illnesses that are made worse and recurrent by childhood trauma triggers. Childhood trauma in individuals diagnosed with bipolar disorder has been linked to an increased severity of manic and depressive episodes, as well as psychotic symptoms **(Smith, 2023).**

Childhood trauma either first impacts a person's resilience and then their perception of stress, or it first impacts a person's resilience and subsequently reduces it, ultimately resulting in depression **(Zheng et al., 2022).** Resilience is the ability of an individual to successfully adjust to extremely negative situations and maintain a healthy functioning by using available resources, such as positive affect, optimism, a sense of mastery, self-efficacy, self-esteem, good emotional regulation skills, a sense of coherence, and a sense of purpose in life. Additionally, resilience promotes cognitive endurance and personal growth, lowers the risk of relapse and suicide attempts, and makes it easier to take medications as prescribed **(Martin- Soelch, 2023).**

Resilience is linked to various personal attributes, including genetic, poverty, child abuse, chronic disease and cognitive factors, as well as perceived parental support, relationships with peers during adolescence, personality types, and community support networks. Rather than focusing solely on personality traits, it has been suggested that a comprehensive assessment of individual, familial, and social characteristics offers a more complete understanding of resilience **(Chbeir and Carrión, 2023).**

Impulsivity is elevated in bipolar disorder during mania and psychosis, and it is linked to increased functional impairment, hospitalization rates, and suicide risk **(Kerr-Gaffney et al, 2024).** Impulsivity is a propensity

toward quick, spontaneous responses to internal or external stimuli with less consideration for the detrimental effects of these reactions on the impulsive individual or others **(Jones et al., 2023).**

Nurses play key roles in the care of bipolar disorder regarding education of patients and families, treatment, and provision of longer-term patient care. Nursing interventions for manic patients, as described, include reducing environmental stimuli and creating a safe environment free of dangerous stimuli, psychological support, early intervention strategies to foster resilience and provide compassionate care, and nurses contribute to enhancing mental health outcomes for patients and their families **(Hartley et al., 2021).**

Significance of the study

Bipolar disorders are recurrent, chronic mood disorders, and the global prevalence is approximately 2% **(Nierenberg et al., 2023).** Childhood trauma and resilience play a crucial role in shaping impulsivity among patients with bipolar disorder. Early traumatic experiences, such as abuse, neglect, or household dysfunction, can alter brain development and emotional regulation, increasing susceptibility to impulsive behaviors, which is the core feature of bipolar disorder **(Bougacha et al., 2022).**

As well, trauma experienced as a child can increase emotional sensitivity and affect judgment, making it harder to manage impulses during manic or depressed episodes. Nonetheless, resilience, which encompasses coping mechanisms, social support, and emotional control, can serve as a buffer, lessening the negative consequences of trauma. So, enhancing resilience through therapy interventions may help people with bipolar disorder function better overall and stabilize their moods by reducing impulsivity. Knowing this connection is crucial to creating focused therapies that address impulse control issues as well as traumatic experiences **(Aas et al., 2023).**

Aim of the study

This study aimed to investigate the effect of childhood trauma and resilience on impulsivity among patients with bipolar disorder.

Research questions

- What are the levels of childhood trauma, resilience and impulsivity among patients with bipolar disorders?
- Are childhood trauma and resilience influencing factors on impulsivity among patients with bipolar disorder?

Subjects and methods

Study design

A descriptive correlational research design was used to fulfill the aim of the existing study.

Study setting

The study was carried out at the psychiatric outpatient clinic at Zagazig University. The clinic provides diagnosis, treatment, and medical examinations to patients with mental disorders to aid in the psychological and behavioral management of mental and psychological diseases.

The psychiatric outpatient clinic is situated on the fifth floor of the outpatient clinics building and comprises of ten rooms (department manager room, two teaching rooms, general psychiatry room, psychiatric measurements room, forensic psychiatry and psychotherapy room, geriatric psychotherapy, addiction therapy and child psychiatry room, secretarial room and two bathrooms).

Study subjects

A purposive sample consisted of 100 patients with bipolar disorder. According to the study by **Choi et al. (2015)** For Cohen's d = 0.638

(Impulsiveness Scale total score), Power (1 - β): 0.80, Significance level (α): 0.05, Tail(s): Two-tailed, Analysis: t-tests (means: difference between two independent mean), Effect size: Cohen's d = 0.638, Using these parameters, the calculated sample size was approximately 88 participants, with 12 patients allocated for attrition, resulting in a total sample size of 100 patients according to the following **inclusion criteria;** Patients ages range between 18 and 60 years old; Both gender; and Diagnosed with bipolar disorder by specialized professionals in the mentioned hospital according to DSM-V, were selected for this study. Clients were excluded if they had co-morbidities of organic brain illnesses, mental retardation, and were determined by their psychiatrist to be unsuitable for research participation.

Tools of data collection

Four tools were used for data collection:

Tool I: An interview questionnaire: It was designed by the researcher after reviewing the related literature to assess the socio-demographic characteristics of the study participants and the clinical characteristics. It consisted of two parts:

- **Part I: socio-demographic characteristics of the patients with bipolar disorders**, including age, gender, educational level, employment status, who living with, and marital status.
- **Part II: The clinical characteristics of the patients with bipolar disorders**

Including the age at onset of bipolar disorders, admission rate at a psychiatric hospital, duration of disease, type of bipolar disorders, suicide attempts, family history of mental illness, and smoking.

Tool II: Childhood Trauma Questionnaire

The Childhood Trauma Questionnaire was developed by **Bernstein and Fink (1998),** which is composed of 28 items to assess the level of childhood trauma. This included five subscales, each containing five items: Emotional Abuse, Physical Abuse, Sexual Abuse, Emotional Neglect, and Physical Neglect.

Scoring system

The questionnaire is scored on a five-point Likert scale from 1 (never) to 5 (always). The total score for this scale was calculated by summing item responses with scores ranging from 28–140, with higher scores indicating severe childhood trauma. The total score is classified into the following groups:

- Mild Childhood Trauma: <70
- Moderate Childhood Trauma: 70-105
- Severe Childhood Trauma: > 105

Tool III: Resilience scale

The scale is a self-report measure developed by **Wagnild and Young (1993)**, to assess the level of resilience among patients. The 25 items on this measure were split into two categories: personal competency (17 items) and acceptance of oneself and life (8 items). While the subscale personal competence encapsulates traits like self-reliance, independence, determination, mastery, and resourcefulness, the subscale acceptance of self and life concentrates on traits like flexibility, balance, tolerance, and adaptation.

Scoring system

Using a 7-point Likert scale, the measure's items were evaluated from 1 (strongly disagree) to 7 (strongly agree); the total scores varied from 25 to 175, with higher scores denoting

stronger resilience. The total score is divided into the following categories:

- Low resilience: <126
- Moderate resilience: 126-145
- High resilience: > 145.

Tool IV: Barratt Impulsivity Scale.

This Scale was developed by **Patton et al. (1995)** to assess the severity of impulsivity among patients**.** It involves 30 items, divided into six subscales: Self-control (6 items), Motor (7 items), Attention (5 items), Cognitive Complexity (5 items), Perseverance (4 items), and Cognitive Instability impulsiveness (3 items).

Scoring system

There were thirty items in all, and each one was scored on a four-point Likert scale that went from "rarely/never = 1" to "almost always/always = 4." The sum of the ratings for each item was used to determine the degree of impulsiveness. When item responses are added up, the scale's overall score can be determined. Scores range from 30 to 120, with the latter representing the scale's highest impulsivity score.

The total score divided into the following:

- Low impulsivity: <50%
- Moderate impulsivity: 50-75%
- High impulsivity: > 75%

Content validity and reliability

A team of five experts in psychiatric medicine and psychiatric and mental health nursing collaborated to assess the content validity of the instruments employed in this study. Those specialists examined the tools to evaluate their applicability, ease of use, comprehensiveness, clarity, and relevance. To maintain the original validity, the researchers employed the back-translation method to convert the instruments into Arabic. The reliability of the instruments was assessed using the statistical software for social sciences (SPSS), version 20.0, specifically through the Cronbach's alpha test.

Reliability of the tools

Scale	Cronbach's Alpha
Childhood trauma	0.876
Resilience	0.912
Impulsivity	0.920

Field work

Upon receiving the necessary permissions, the researchers engaged with the medical staff at the outpatient psychiatric clinic at Zagazig University two to three times weekly to outline their research objectives. Subsequently, they began individual meetings with each patient in the waiting area. Patients were selected based on specific inclusion criteria, with an average of six patients interviewed each week. Each patient was informed of their rights, and the study's purpose was articulated, inviting them to participate. The researchers conducted the interviews using established data collection methods after obtaining the subjects' consent.

They reviewed the questionnaire, provided clarifications as needed, and recorded the responses. Completing the questionnaire required approximately thirty to forty-five minutes. The fieldwork was conducted from August 2023 until the end of November 2023.

Pilot study

A pilot study was done on 10% of the total sample (10 patients) to assess the instruments' applicability and clarity and estimate the time required to complete the questionnaire. Based on the pilot study results, some changes were made to the questionnaire mostly rephrasing and using simpler semantics for the statements. Patients who took

part in the pilot study were not included in the main study

Administration and ethical consideration

The study was approved by Zagazig University's Faculty of Nursing's **Research Ethics Committee** (Zu.Nur.REC#0052). Additionally, by sending a formal letter from Zagazig University's dean of the nursing faculty to the manager of the selected hospital, the researchers asked for permission to carry out their investigation. The patient was informed that their participation in the study was entirely voluntary and that they might leave at any time without giving a reason. Additionally, the researchers assured the patients that the information they gathered would remain anonymous and that it would only be utilized for study.

Statistical analysis

Data collected from the studied sample was revised, coded, and entered using Personal Computer (PC). Computerized data entry and statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 22. Data were presented using descriptive statistics in the form of frequencies, percentages, and Mean SD. A correlation coefficient "Pearson correlation" is a numerical measure of some type of correlation, meaning a statistical relationship between two variables. A t test is a statistical test that is used to compare the means of two groups. Linear regression analysis is used to predict the value of a variable based on the value of another variable. Significance of the results:

Highly significant at p-value < 0.01. Statistically significant was considered at p-value < 0.05

Non-significant at p-value ≥ 0.05

Results

Table 1 displays that (39 %) of the studied patients were in the average age between 31-38 years old, with a total mean age of 34.7 (SD = 7.1). Additionally, (57%) of the patients were males, and (46%) were single. Regarding education level, 41% have secondary education, 58% of the patients were not working, and 81% of the patients lived with their families.

Table 2 reveals that (57%) of the studied sample suffered from bipolar disorder at age 20 - <30 years old, with a total mean score of 27.44 and SD=5.13, and (86 %) of the patients were diagnosed with bipolar I. As well, (49%) of the sample were admitted for hospitalization once time and 36% of the patients twice. Concerning the duration of disease, (85%) of the patients had the disease for 2 to <10 years, and (74%) had a family history of psychiatric disorders. About 60% of the patients attempted suicide, and (56%) were smoking.

Figure 1 clarifies that (48%) of the patients had low levels of resilience, (36%) had moderate levels, while (16%) of the sample with high levels of resilience.

Table 3 indicates various types and total scores of childhood trauma as reported by the patients. It was found that a high percentage of the patients experienced emotional abuse (42% moderate, 23 % severe), followed by emotional neglect (38% moderate, 25 % severe), while 65 % of the patients had low levels of sexual abuse. Moreover, this table also shows that totally three-fifths of patients experienced childhood trauma, ranging from moderate (42%) to severe (18 %).

Figure 2 reveals that (57%) of the studied patients had high levels of impulsivity and 30 % with moderate levels, while 13% had low levels of impulsivity.

Table 4 clarifies that the total mean score of childhood trauma was 79.66 (SD = 15.9), resilience was 36.50 (SD = 10.7), and the impulsivity mean score was 81.83 (SD = 16.4).

Table 5 identifies a highly statistically significant negative association between resilience and childhood trauma (r = -0.467, p = 0.003), and a highly statistically significant negative correlation between resilience and impulsivity (r = -0.521, p = p. 0.000). Whereas, there was a highly statistically significant positive correlation between childhood trauma and impulsivity (r = 0.388, p= 0.007).

Table 6 presents the results of a linear regression analysis examining predictors of impulsivity in the sample of 100 patients. The overall regression model was significant, F = 12.065, p < .001, with an R2 of .314, indicating that 31.4% of the variance in impulsivity was explained by the predictor variables. Childhood trauma (β = 0.320, p < .001) was a significant positive independent predictor of higher impulsivity, while Resilience (β = 0.344, p < 0.001) was a significant negative independent predictor of higher impulsivity.

Discussion

The psychiatric condition known as bipolar disorder (BD) is typified by periods of partial or total clinical remission interspersed with recurrent major depressed and (hypo) manic episodes. BD is caused by environmental risk factors and gene-environment interactions **(McIntyre et al, 2020).** One of the main environmental risk factors for BD has been identified as childhood maltreatment, often known as childhood trauma **(Etain and Aas, 2020).**

The study's results highpoint the significant presence of childhood trauma among patients with bipolar disorders, with a majority experiencing moderate to severe levels of childhood trauma. This could be because childhood maltreatment is a powerful environmental stressor that can activate a person's innate biological susceptibility to severe mental illness. As reported by **Cakir et al. (2016)** which clarified that between 25% and 70% of people with bipolar disorder suffer from childhood trauma are correlated with the disorder's severity

This aligns with prior research demonstrating that child trauma is predominant among patients with bipolar disorders. For instance, **Laroche et al. (2022)** reported in their study about association between Childhood Trauma and Clinical Course among patients with bipolar disorders in France that slightly more than two-thirds of bipolar disorders patients experienced childhood abuse as emotional, physical, and sexual abuse. Moreover, **De Flippis et al. (2023)**, concluded that about three-fifths of studied patients diagnosed with bipolar disorders experienced childhood maltreatment.

The current study findings revealed that nearly half of the patients demonstrated a low level of resilience. One interpretation of this would be that environmental influences can also affect resilience, in addition to its innate propensity. The interplay between risk factors like poverty, child maltreatment, and chronic illnesses and protective variables like empathy, realistic optimism, and good emotions influences resilience. Moreover, resilience is believed to be linked to various neurological processes **(Wilson, 2021).**

Furthermore, the brain undergoes a sequence of reactions in response to a stressor, which ultimately leads to either maladaptation, pathology, or adaptation (i.e. allostatic load). Allostatic load may be thought of as resilience, suggesting that a lack of

resilience may be a major contributing factor to the onset of mental illnesses like bipolar disorder **(McEwen and Stellar, 1993).**

This is arranged in line with **Choi et al. (2015) findings,** which investigated the impact of childhood trauma and resilience on impulsivity among patients with Bipolar disorder in Korea and concluded that about three-fifths of the studied patients had a low level of resilience. Additionally, **Post et al. (2021)** documented in a study about Resilience as a predictive factor of stigma in Stabilized patients with bipolar disorder in Australia that nearly half of the patients have a low level of resilience.

The results regarding impulsivity indicated that more than half of the patients experienced high levels of impulsivity. This could be explained by the fact that BD is characterized by heightened impulsivity. Deficits in several areas of cognitive functioning are linked to elevated impulsivity in BD patients. Patients with BD may be less able to handle stress and hardship in life as a result of these impulsivity-related cognitive impairments. However, it's also possible that people with BD are more likely to act impulsively when under stress if they have inadequate resilience. A history of childhood trauma is one of the etiological elements linked to impulsiveness. There has been a link between impulsivity and stressful childhood experiences. Patients with BP often have stressful pasts, which may account for the high prevalence of associated impulsive behaviors including suicidal and self-destructive behaviors in this group **(Richard-Lepouriel et al., 2019).**

These results were supported by **Kulacaoglu and Izci, (2022)** who investigated the effect of impulsivity on suicidality among patients with bipolar disorders in Turkey and concluded that most of the patients suffered from high levels of impulsivity. Also, **Titone et al. (2022)** demonstrated in their study in California that most bipolar disorder patients experienced high levels of impulsivity.

The core objective of the current study was to explore the correlation between childhood trauma, resilience, and impulsivity among patients with bipolar disorders. Firstly, the results indicated a statistically significant positive correlation between childhood trauma and impulsivity and the regression analysis revealed that childhood trauma was a significant positive predictor of higher impulsivity. This may be explained by the fact that people who have gone through childhood trauma may respond to their emotional pain and trauma by developing maladaptive coping strategies, such as impulsivity. In addition, the absence of constructive coping mechanisms in childhood may be a factor in impulsive conduct as an adult. Furthermore, a person's resilience may also have an impact on the connection between impulsivity and child trauma. Increased resilience can lessen the chance that people will turn to impulsive actions as a coping method and help them deal with trauma in a healthier way.

This observation was supported by **Bougacha et al. (2022)** who studied the impact of child trauma on impulsivity among patients with bipolar disorder in Tunisia and found that there was a statistically significant positive association between childhood trauma and impulsivity among patients in addition, Linear regression with the CT total score as the independent variable showed a statistically significant positive effect of childhood trauma

score on impulsivity. Similarly, **Richard-Lepouriel et al. (2019)** found a significant positive association between childhood trauma and impulsivity in their study in Switzerland involving patients with bipolar disorder, reinforcing the link between early adverse experiences and later impulsive behaviors.

Secondly, the study revealed a negative correlation between resilience and impulsivity, with regression analysis identifying resilience as a significant negative predictor of impulsivity levels. This relationship may be attributed to various factors, including differences in individuals' cognitive functioning, emotional regulation, and problem-solving capabilities. Resilience reflects the capacity to adapt positively to stress and adversity, whereas impulsivity involves acting on immediate urges without thoughtful consideration of consequences. Therefore, individuals with lower resilience may be more susceptible to impulsive behavior as a maladaptive response to emotional distress or external challenges. Both resilience and impulsivity are shaped by a complex interplay of genetic, environmental, and psychological influences (**Carvalho et al., 2023).** These findings are consistent with the results of **Choi et al. (2015)**, who also found a significant negative correlation between resilience and impulsivity among individuals diagnosed with bipolar disorder

Finally, there was a statistically significant negative correlation between childhood trauma and resilience among the studied sample. This might be interpreted by the fact that childhood trauma can affect a person's mental health and well-being for a long time, possibly making it harder for them to handle stress and hardship. Childhood trauma survivors may find it more difficult to build resilience, which might make them more susceptible to mental health issues like bipolar disorder. Furthermore, childhood trauma impacts a child's mental, physical, and psychological development later on and irreversibly harms their natural growth. Low resilience was often a result of these deficiencies in adult psychological growth.

This finding is further supported by previous research conducted by **Citak and Erten, (2021),** who examined the effect of childhood trauma on resilience in individuals with bipolar disorder in Turkey and found a significant negative association, indicating that higher levels of childhood trauma **were** linked to lower levels of resilience. Similarly, **Park et al., (2023)** reported in their study in South Korea, that there was a statistically significant relationship between childhood adversity and reduced resilience among patients with mood disorders, reinforcing the idea that early adverse experiences can compromise an individual's capacity to cope effectively with future stressors.

Conclusion

According to the existing study's results, the majority of patients with bipolar disorder encounter childhood trauma ranging from moderate to severe levels. Nearly half of the patients demonstrate low levels of resilience and more than half report high levels of impulsivity. There was a statistically significant positive association between childhood trauma and impulsivity; on the other hand, there was a statistically negative association between resilience and both impulsivity and childhood trauma. Childhood trauma and resilience were significant predictors of

higher impulsivity among patients with bipolar disorders.

Recommendations

Based on the findings of the current research:

- Integrating psychosocial interventions such as trauma-focused cognitive behavioral therapy (TF-CBT) into care plans may help address the lasting emotional effects of childhood trauma.
- Psycho-educational and resilience-building interventions should be tailored to individuals with bipolar disorder, following globally recognized recovery models.
- Given the association between childhood trauma and impulsivity, early screening and treatment of trauma may reduce impulsive behaviors and improve clinical outcomes.
- Further research is required to determine whether impulsivity is a trait-dependent or state-dependent factor influencing treatment response and prognosis.

Authors' contributions

A.E.A.A. was responsible for preparing the aim, research hypothesis, introduction, significance of the study, and literature review. She also contributed extensively to data interpretation and drafting the conclusion and serves as the corresponding author.

R.A.A. collected the data and made significant contributions to the aim, research hypothesis, discussion, conclusion, and recommendations. All authors were involved in the overall supervision of the research process, provided the initial draft of the manuscript before publication, and actively participated in every stage of the study. Additionally, all authors reviewed, revised, and approved the final version of the manuscript.

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Table 1. Personal Characteristics of studied patients with bipolar disorders (n=100)

Personal Characteristics of the patients	N	%
Age (years)		
23 – 30	33	33
31 – 38	39	39
39 – 46	28	28
Mean ± SD **34.7 ± 7.1**		
Gender		
Male	57	57
Female	43	43
Education level		
Illiterate	10	10
Read and write.	21	21
Secondary education	41	41
University	28	28
Marital status		
Single	46	46
Married	40	40
Divorced	11	11
Widow	3	3
Employment		
Working	42	42
Not working	58	58
Who living with		
Alone	19	19
With family	81	81

Table 2. Clinical characteristics of studied patients with bipolar disorders (n=100)

Clinical characteristics of the patients	N	%
Age at onset of bipolar disorder (years)		
20 - <30	57	57
30 – 40	43	43
Mean ± SD **27.44 ± 5.13**		
Frequency of hospitalization		
1	49	49
2	36	36
>2	15	15
Duration of disease (years)		
2 - <10	85	85
10 -21	15	15
Mean ± SD **7.1 ± 4.03**		
Types of bipolar disorders		
I	86	86
I I	24	24
Past history of suicidal attempts		
Yes	60	60
No	40	40
Family history of psychiatric disorders		
Yes	74	74
No	26	26
Smoking		
Yes	56	56
No	44	44

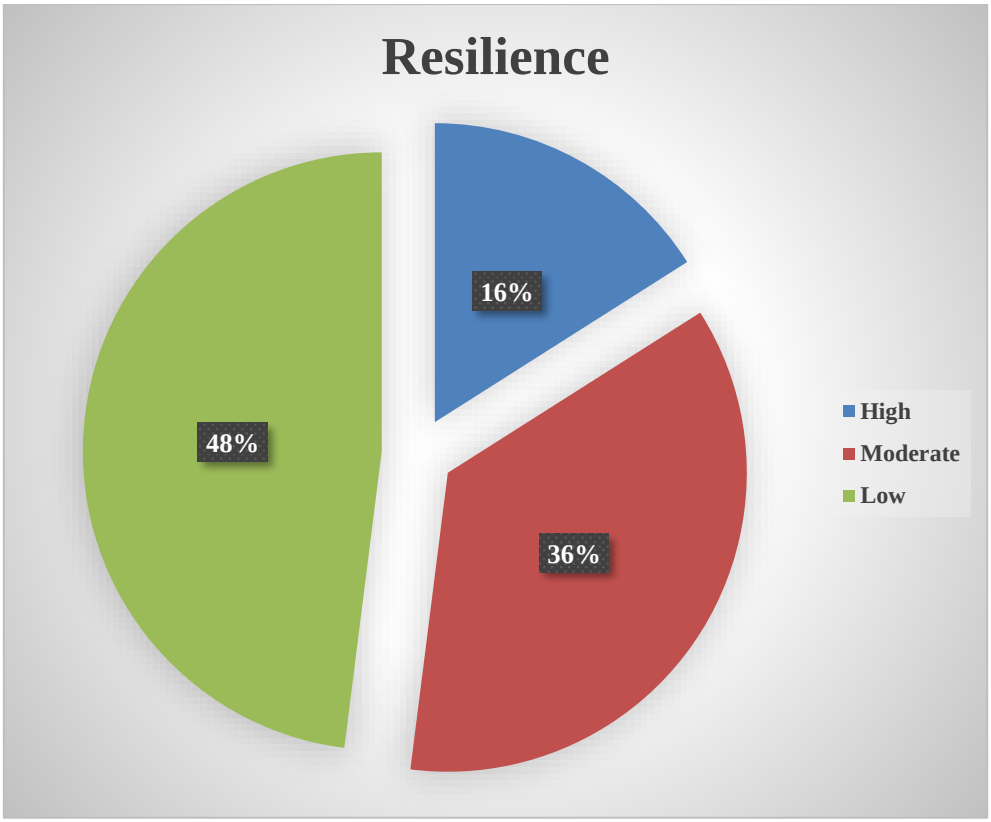

Figure 1. Levels of Resilience among Patients with Bipolar Disorders (n=100)

Table 3. Frequency Distribution of Studied Patients with Bipolar Disorders Related to Level of Childhood Trauma (n=100)

Childhood trauma subscales	Severe		moderate		Low	
	N	%	N	%	N	%
Emotional neglect	25	25	38	38	37	37
Emotional abuse	23	23	42	42	35	35
Physical neglect	21	21	40	40	39	39
Physical abuse	16	16	44	44	40	40
Sexual abuse	8	8	27	27	65	65
Total	18	18	42	42	40	40

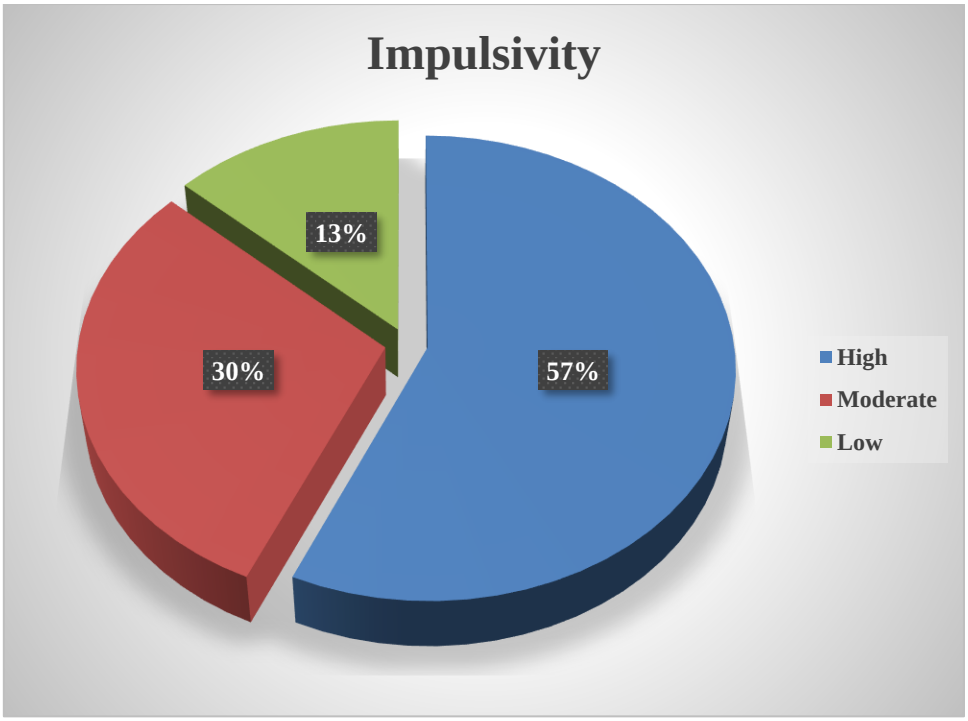

Figure 2. Level of Impulsivity among Patients with Bipolar Disorders (n=100)

Table 4. Mean score of studied patients with bipolar disorders related their childhood trauma, resilience, and impulsivity (n=100)

Variables	Mean	SD
Childhood trauma	79.66	15.9
Resilience	36.50	10.7
Impulsivity	81.83	16.4

Table 5. Correlation Matrix between Childhood trauma, Resilience, and Impulsivity (n=100)

Variables	Childhood trauma	Resilience	Impulsivity
Resilience	r. - 0.467 p. 0.003**		
Impulsivity	r. 0.388 p. 0.007**	r. – 0.521 p. 0.000**	

Table 6. Stepwise Multiple Linear Regressions for Predicting Impulsivity Influencing Factors

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	25.041	5.401		5.705	.000
Childhood trauma	.691	.137	.320	5.615	.000
Resilience	- 1.210	.262	.344	6.700	.000
	R	R Square	Adjusted R Square	F	Sig.
Model	.561	.314	.290	12.065	.000

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