

## Impulsivity, adult attachment styles and suicidal ideation among bipolar I and bipolar II patients

Iram Batool<sup>1</sup>, Sayad Mazhar Hussain Zaidi<sup>2</sup>, Ghazala Malik<sup>3</sup>, Madiha Asghar<sup>4</sup>

### ABSTRACT

**Objective:** To investigate the impact of adult attachment styles on impulsivity among bipolar I and bipolar II patients and to check the mediating role of impulsivity among adult attachment styles and suicidal ideation.

**Study Design:** Descriptive cross-sectional study.

**Place and Duration:** At Psychiatry Department of Sheikh Zayed Hospital Lahore and Nishtar Hospital Multan, from 10<sup>th</sup> September 2017 to 07<sup>th</sup> March 2018.

**Methodology:** 150 participants were selected using purposive sampling technique. Barratt Impulsiveness Scale, Revised Adult Attachment scale and Suicidal Risk Assessment Scale were used to measure variables.

**Results:** Results revealed significant impact of adult attachment (33 %) on impulsivity and suicidal ideation. In mediation analysis, impulsivity showed partial mediation by showing (29%) impact of suicidal ideation on Adult attachment while impulsivity showed (24%) impact on suicidal ideation and adult attachment styles. Significant differences on impulsivity (age group 22-30 are significantly different from 31-40 and 41-55) and suicidal ideation (age group 22-30 are significantly different from 41-55) were also found among different age groups.

**Conclusion:** Impulsivity and suicidal ideation are significantly affected by adult attachment styles among bipolar I and bipolar II disorder patients. Impulsivity and suicidal ideation varies among different age groups.

**Keywords:** Adult attachment, Suicidal ideation, Impulsivity, Mood disorder, Bipolar I disorder, Bipolar II disorder.

### How to Cite This:

Batool I, Zaidi SMH, Malik G, Asghar M. Impulsivity, adult attachment styles and suicidal ideation among bipolar I and bipolar II patients. *Isra Med J.* 2019; 11(3): 175-179.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

### INTRODUCTION

Different behavioral, physical and cognitive symptoms combine with the fluctuation of the energy related to these domains and also includes elevated mood with depressive symptoms to form bipolar disorder. Mania and hypomania are two key terms in bipolar disorder, mania refers to elevated mood, physical

symptoms and psychotic disturbances related to it while hypomania on the other hand holds less severe mood and less severe symptoms but leads to mania. There are two divisions of bipolar disorder, bipolar I which includes mania and bipolar II includes hypomania only but sometimes mania and depressive mood combine to form mixed states of bipolar disorder<sup>1,2</sup>.

In bipolar disorder, impulsivity is the most frequent component which is included in the occurrence and the persistence of the disorder as a core feature. There is few indication which consider bipolar disorder as more positive than schizophrenia and less positive than depression. Literature also reported moderate to high degree of internalised stigma in bipolar disorder, although many questions are still unanswered regarding its ubiquity. Economic factors were also explored and related to Depression<sup>3,4</sup>. Investigations on bipolar I disorder patients reported that these patients deficit on different aspects of impulsivity<sup>5</sup>. Impulsivity is the phenomenon which includes multiple behaviors and could not be explained by a single one. Barrat and colleagues suggested that there are three independent behavioral factors non-planning impulsiveness which says that the future would be defined on the basis of present failures, motor impulsiveness which includes unthoughtful acts, and attentional impulsiveness in which the person shifts the attention very quickly<sup>6,7</sup>. There are further three components which work in impulsivity which includes

1. Assistant Professor of Applied Psychology, Bahauddin Zakariyya University Multan
2. M. Phil Scholar of Applied Psychology, Bahauddin Zakariyya University Multan
3. Medical officer of Radiology, Pakistan Institute of Medical Sciences (PIMS), Islamabad
4. Assistant Professor of Applied Psychology, Islamia College Peshawar

### Correspondence to:

Iram Batool  
Assistant Professor of Applied Psychology,  
Bahauddin Zakariyya University Multan  
Email: i.batool@bzu.edu.pk

Received for Publication: 20-12-18

Accepted for Publication: 15-05-19

inability to delay satisfaction which includes the person gives immediate response to reward to get that, disinhibition in which the person could not inhibit unwanted response, and inattention in which the individual could not pay attention to complete a specific task<sup>8</sup>.

Without impulsive behavior, it is almost impossible to discuss bipolar disorder because impulsivity contributes different complications of bipolar disorder, suicide and substance abuse disorder. Physiological conditions of bipolar disorder are also related to impulsivity<sup>9,10</sup>. Researches have suggested that impulsivity is necessary to define and explain bipolar disorder<sup>11</sup>. Researches have demonstrated that in bipolar ones' attachment style and temperament play a very crucial role, they are significantly correlated and also determine the behavioral domains of the individuals with bipolar I and II. Attachment can affect different personality traits and components<sup>12</sup>.

In bipolar disorder, the aspect of suicidal ideation plays a common role. Different studies have estimated that the ratio of suicidal attempt among individuals with bipolar disorder is between 25% to 60%, while the ratio of committing suicide is 4% to 19%. The ratio of suicidal ideation among bipolar I individuals is much higher than the ratio among bipolar II, the reason of this could be that bipolar II in relation with suicidal ideation is an understudied phenomenon<sup>12</sup>. In the past, researches have kept their focus of studying bipolar I and said that bipolar II is a lighter version of bipolar I in symptomatology which could be related to physical symptoms, psychotic symptoms and behavioral symptoms<sup>13</sup> According to different studies people with bipolar II are at lower risk of suicidal ideation than bipolar I and they also might have face more chronicity of illness<sup>14</sup>.

Bipolar suicidality model discussed the factors which relate bipolar disorder and suicidal ideation. The thought behind this is escape, which means that when people feel unpleasant or stressful situations in which they feel hopeless and helpless and try to avoid those situations they moved towards suicidality. Same as the people who feel themselves unwanted in situations and they feel no worth or need of themselves, they also tend to move towards suicidal ideation and individuals having bipolar disorder are specially follow these kind of thought patterns, they may feel difficulty in emotion regulation as well as difficulty in coping. There are different kinds of behavioral aspects like self-appraisal and self-criticism are also explained by this model which suggest that people having bipolar disorder re more reluctant to different situations which are stressful and unmanageable<sup>15</sup>. Main objective of the study is to investigate the impact of adult attachment styles on impulsivity among bipolar I and bipolar II patients and to check the mediating role of impulsivity among adult attachment and suicidal ideation. Furthermore it was aimed to explore the demographic differences (age, income) on impulsivity and suicidal ideation.

## METHODOLOGY

This descriptive cross-sectional study was conducted at the Psychiatry department of Sheikh Zayed Hospital Lahore and Nishtar Hospital Multan, in Seven months from 10th September

2017 to 07th March 2018. Purposive sampling technique was used to collect the data from both indoor and outdoor patients. For this study 150 diagnosed patients with Bipolar disorder, both males and females were selected. All patients had Magnetic resonance imaging (MRI) and electroencephalogram (EEG) for screening which ensured that selected patients should not have any other neurological problem. All the participants were willing to participate in the study. They have different educational, professional and socio-economic backgrounds.

The Barratt Impulsiveness Scale (BIS-11) by Patton et al,<sup>16</sup> which was developed in 1995 was used to assess the impulsiveness it has 30 items that are scored to yield attention, motor, self-control, and complexity.

The self-reported BIS was widely used to measure the impulsive and non-impulsive behavior The Adult Attachment Scale revised by Collins<sup>17</sup>, was used to measure attachment. This scale contains 18 items has three dimensions: closeness, dependence and anxiety.

Suicidal Risk Assessment Scale<sup>18</sup> is revised form of the suicide intent scale was used with patients attempting suicide. This scale helps to understand a patient's will to die and to assess the severity of the suicide attempt. It comprises 15 items each containing three options. With the permission from hospital authorities researcher visited outdoor as well as indoor patients in psychiatry departments of both hospitals. The booklet included consent form, demographic form, and variables scales. The purpose of study and confidentiality of information was ensured to all participants. Individual administration of scales took 15 to 20 minutes. The data was collected by one of researcher from two different hospitals.

**Data Analysis:** Different statistical analyses were applied by SPSS version 22 in order to find results such as Descriptive statistics, hierarchical multiple regression, mediation analysis, and ANOVA were conducted.

## RESULTS

Reliability of the scales was measured and it was 0.65 for adult attachment 0.81 for impulsivity and 0.71 for suicidal ideation.

**Table-I: Hierarchical regression analysis for adult attachment and impulsivity (N=150).**

	Impulsivity			
	B	SE	B	P
Constant	61.69	4.94		
Close	1.75	.36	.32***	.000***
Depend	1.77	.42	.32***	.000***
Anxiety	1.06	.43	.19**	.001**

$R^2 = .57, \Delta R^2 = .33***$

Table-I shows hierarchical regression analysis to explore the prediction of impulsivity by Adult attachment. Results found 33 % variance in impulsivity,  $F(3,147) = 24.19, p < .000$ , Subscales of adult attachment (Close, Depend and anxiety) significantly positively predicted Impulsivity.

**Table-II: Hierarchical regression analysis for adult attachment, impulsivity and suicidal ideation (N=150).**

Variables	Suicidal ideation							
	Block 1				Block 2			
	B	SE	B	P	B	SE	B	P
Constant	6.13	1.66			-6.10	1.93		
Close	.56	.12	.32***	.000***	.21	.10	.12*	.04*
Depend	.59	.14	.33***	.000***	.24	.12	.13*	.04*
Anxiety	.24	.14	.13		.03	.12	.01	
Impulsivity					.19	.02	.60***	.000***
R <sup>2</sup>			.54				.63	
ΔR <sup>2</sup>			.29***	.000***			.24***	.000***
F change			20.66				43.02	

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001

**Table-III: One way ANOVA for impulsivity and suicidal ideation in age groups of patients (N=150)**

Variables		SS	df	MS	F	P
Impulsivity	Between group	579.53	2	289.76	5.98	.003***
	Within group	7113.86	147	48.39		
	Total	7693.39	149			
Suicidal ideation	Between group	45.31	2	22.65	4.25	.016**
	Within group	782.56	147	5.32		
	Total	827.87	149			

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001

In the Second Regression analysis (Table-II) suicidal ideation was regressed on adult attachment in the first block and impulsivity in second block. Subscales of adult attachment (close and depend) significantly positively predicted suicidal ideation in the first block. The first model explained 29 % variance in the suicidal ideation,  $F(4,146) = 20.6, p < .000$ . The second model explained 24 % variance in the suicidal ideation  $F(3,147) = 43.02, p < .000$ . In the second block, Impulsivity significantly positively predicted suicidal ideation and impulsivity partially mediated the relationship between adult attachment (close and depend). Hierarchical regression analysis find out the mediating role of impulsivity for attachment styles and suicidal ideation. In block I close and depend showed significant prediction while anxiety did not showed prediction as in the block II which means overall impulsivity showed partial mediation.

Results in Table-III shows that there is a significant differences between age group of patients on impulsivity ( $F=5.98, p < .003$ ) and Suicidal ideation ( $F=4.25, p < .016$ )

Post hoc analysis was used to check differences between patient of three different age groups on impulsivity and suicidal ideation. Results of post hoc analysis revealed that patients with age group of 22-30 years were significantly different from the 31-40 and 41-55 years age groups on impulsivity. However, participants between 22-30 years of age were significantly different from 41-55 years of age group having more suicidal ideation.

## DISCUSSION

Current study was designed to analyze to investigate the impact of adult attachment styles on impulsivity among bipolar I and bipolar II patients and to check the mediating role of impulsivity among adult attachment styles and suicidal ideation. It was

hypothesized that adult attachment has significant impact on impulsivity. Previously investigators has discussed role of attachment styles and it was concluded that adult attachment styles do have impact on different personality traits components and impulsivity<sup>12</sup>. Results of present study revealed that adult attachment style (Close, Depend and anxiety) significantly positively predicted Impulsivity. These findings are in the line of previous explorations. Existing literature advocates regarding association between borderline personality disorder and attachment styles<sup>19</sup>. People with insecure attachment styles might have more chances to be impulsive.

Another assumption of the study was to explore relationship between suicidal ideation and attachment style. It was aimed to investigate the predictors of suicidal ideation, for that Hierarchical multiple regression analysis was done. Results revealed that adult attachment styles (close and depend) significantly positively predicted suicidal ideation. Individuals with close and dependent attachment styles have more suicidal thoughts and spend more time in such ideations. These findings are in the line of previous investigation which found relationship between attachment styles and suicidal ideation<sup>20</sup>.

It was hypothesized that impulsivity have mediating role in the relationship between adult attachment styles and suicidal ideation. The mediated effects of impulsivity were interpreted by mediation analysis. Previously researchers found positive relationship between anxious attachments with health conditions while secure attachment ratings were unrelated<sup>21,22</sup>. Results revealed that close and depend attachment styles showed significant prediction while anxiety did not showed prediction. Overall impulsivity showed partial mediation. Which means hypothesis is partially accepted. In the light of findings of this study it can be said that sometimes impulsivity plays role

and in some situations it does not. It might possible that individuals with higher level of impulsivity might use it as a mediator in this relationship. These findings are in the line of existing literature in which there is a relationship between secure attachment styles, decreased suicidal ideation and any anxiety disorder<sup>23</sup>.

Another hypothesis was to check the role of age for impulsivity and suicidal ideation. ANOVA was run to analyze the differences among impulsivity, attachment and suicidal ideation between different age groups. Results elaborated that there is more impulsivity and suicidal ideation in age group 31-40 and 41-50 than 22-30. Findings showed that older people are more impulsive and experience more suicidal ideation than younger adults. Existing literature speaks in the favor of these findings and explained the role of different age groups<sup>24</sup>.

### CONCLUSION

Impulsivity and suicidal ideation are significantly affected by adult attachment styles among bipolar I and bipolar II disorder patients. Impulsivity and suicidal ideation varies among different age groups.

### LIMITATIONS AND SUGGESTIONS

Study could be extended on larger sample and patients with other disorders could be investigated. And findings could be used by therapists to work on relationships building.

### CONTRIBUTION OF AUTHORS

Batool I: Conceived idea, Designed research methodology, Data collection, Manuscript writing.

Zaidi SMH: Data collection, Manuscript writing.

Malik G: Manuscript writing, Data screening

Asghar M: Statistical analysis, Data analysis.

**Disclaimer:** None.

**Conflict of Interest:** None.

**Source of Funding:** None.

### REFERENCES

- Anderson IM, Haddad PM, Scott J. Bipolar disorder. 2012; (27) 345:e8508.
- Holma KM, Melartin TK, Haukka J, Holma IA, Sokero TP, Isometsä ET. Incidence and predictors of suicide attempts in DSM-IV major depressive disorder: a five-year prospective study. *Am J Psychiatr*. 2010; 167(7):801-8.
- Ellison N, Mason O, Scior K. Bipolar disorder and stigma: A systematic review of the literature. *J Affect Disord*. 2013; 151(3):805-20.
- Madianos M, Economou M, Alexiou T, Stefanis C. Depression and economic hardship across Greece in 2008 and 2009: two cross-sectional surveys nationwide. *Soc Psych Epidemiol*. 2011;46(10):943-52.
- Strakowski SM, Fleck DE, DelBello MP, Adler CM, Shear PK, Kotwal R, Arndt S. Impulsivity across the course of bipolar disorder. *Bipolar Disord*. 2010; 12(3):285-97.
- Moeller FG, Barratt ES, Dougherty DM, Schmitz JM, Swann AC. Psychiatric aspects of impulsivity. *Am J Psychiatry*. 2001; 158(11):1783-93.
- Peluso MA, Hatch JP, Glahn DC, Monkul ES, Sanches M, Najt P et al. Soares JC. Trait impulsivity in patients with mood disorders. *J Affect Disord*. 2007; 100(1-3):227-31.
- Strakowski SM, Fleck DE, DelBello MP, Adler CM, Shear PK, Kotwal R et al. Impulsivity across the course of bipolar disorder. *Bipolar Disord*. 2010;12(3):285-97.
- Allen TJ, Moeller FG, Rhoades HM, Cherek DR. Impulsivity and history of drug dependence. *Drug Alcohol Depend*. 1998; 50(2):137-45.
- Adams GC, McWilliams LA. Relationships between adult attachment style ratings and sleep disturbances in a nationally representative sample. *J Psychosom Res*. 2015; 1 79(1):37-42.
- Adams GC, Stoops MA, Skomro RP. Sleep tight: Exploring the relationship between sleep and attachment style across the life span. *Sleep Med Rev*. 2014; 18(6):495-507.
- Novick DM, Swartz HA, Frank E. Suicide attempts in bipolar I and bipolar II disorder: a review and meta-analysis of the evidence. *Bipolar Disord*. 2010;1(12):1-9.
- Stange JP, Hamilton JL, Burke TA, Kleiman EM, O'Garro-Moore JK, Seligman ND, Abramson LY, Alloy LB. Negative cognitive styles synergistically predict suicidal ideation in bipolar spectrum disorders: a 3-year prospective study. *Psychiatry Res*. 2015; 226(1):162-8.
- Fawcett J, Busch KA, Jacobs D, Kravitz HM, Fogg L. Suicide: a four-pathway clinical-biochemical model. *Ann N Y Acad Sci*. 1997; 836(1):288-301.
- Bagge CL, Glenn CR, Lee HJ. Quantifying the impact of recent negative life events on suicide attempts. *J Abnorm Psychol*. 2013; 122(2):359-68.
- Patton JH, Stanford MS, Barratt ES. Factor structure of the Barratt impulsiveness scale. *J Soc Clin Psychol*. 1995; 51(6):768-74.
- Collins NL. Working models of attachment: Implications for explanation, emotion, and behavior. *J. Pers. Soc. Psychol*. 1996; 71(4):810-32.
- Abreu LN, Lafer B, Baca-Garcia E, Oquendo MA. Suicidal ideation and suicide attempts in bipolar disorder type I: an update for the clinician. *Braz J Psychiatry*. 2009; 31(3):271-80.
- Critchfield KL, Levy KN, Clarkin JF, Kernberg OF. The relational context of aggression in borderline personality disorder: using adult attachment style to predict forms of hostility. *J Clin Psychol*. 2008;64(1):67-82.
- Davaji RB, Valizadeh S, Nikamal M. The relationship between attachment styles and suicide ideation: the study of Turkmen students, Iran. *Procedia Soc Behav Sci*. 2010;5:1190-194.
- McWilliams LA, Bailey SJ. Associations between adult attachment ratings and health conditions: Evidence from

- the National Comorbidity Survey Replication. *Health Psychol.* 2010; 29(4):446-53.
22. Widom CS, Czaja SJ, Kozakowski SS, Chauhan P. Does adult attachment style mediate the relationship between childhood maltreatment and mental and physical health outcomes? *Child Abuse Negl.* 2018; 1(76):533-45.
23. Palitsky D, Mota N, Afifi TO, Downs AC, Sareen J. The association between adult attachment style, mental disorders, and suicidality: findings from a population-based study. *J Nerv Ment Dis.* 2013; 201(7):579-86.
24. Trivedi SC, Shetty NK, Raut NB, Subramanyam AA, Shah HR, Pinto C. Study of suicidal ideations, hopelessness and impulsivity in elderly. *Am J Geriatr Psychiatry.* 2014; 1(1):38-44.