Original Research Article

Cognitive Coping Styles in Bipolar Mood Disorder: A Comparative Study

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Abstract

Introduction: Coping responses are being targeted in psychological interventions as they have the capacity to distinctly influence the illness course. Identifying the coping strategies in patients of Bipolar Mood Disorder thus becomes essential part for treatment design, due to differential coping preferences having etiological and clinical implications. Most studies till date have focused on bipolar I disorder, the current study examines the cognitive coping profiles in both bipolar I (BD I) and bipolar II mood disorder (BD II) patients, and compared them.

Aim: To examine the cognitive coping strategies in Bipolar I and Bipolar II patients and how they differ from each other.

Material and methods: A total of 100 participants were segregated using MINI and divided into groups based on DSM-IV TR. Participants (62 BD I patients and 38 BD II patients) were analyzed for preferential cognitive coping strategies using the Cognitive Emotion Regulation Questionnaire.

Results: BD I patients scored significantly higher on most adaptive coping subscales of CERQ as compared to BD II patients.

Conclusion: BD I patients used more adaptive coping strategies as compared to BD II patients.

Key words

Coping, Cognitive styles, Bipolar Mood Disorder, CERQ.

Introduction

Bipolar Disorder (BD), also known as Bipolar Mood Disorder, is a severe form of mental illness with significant consequences. BD causes unusual deviation in mood, affective state, energy and activity levels of an individual, and also impacts the ability to carry out routine da-to-day tasks [1, 2]. The lifetime prevalence for full bipolar spectrum is 2.6 to 7.8 %, which includes

subtypes as Bipolar I Disorder (BD I), Bipolar II Disorder (BD II), Cyclothymia, and Hypomania [3].

According to a review article, "it is estimated that an adult developing bipolar disorder in his/her mid-20s effectively loses 9 years of life, 12 years of normal health and 14 years of working life [4]."

Though medication being positioned as the mainstay treatment modality, current pharmacotherapy provides only moderate treatment success [5, 6]. Many researchers have attributed this to the role of psychological factors, most import amongst these being Stressful life events [7-9].

The increasing recognition of psychological factors in bipolar mood disorder, both as risk factors for development of BD as well as ongoing contributors to illness course, has made way for psychosocial interventions to be considered an important adjunct in the treatment of BD [10, 11].

Essentially all forms of therapy aim at helping person suffering from BD to better understand the disorder, teach them self-monitoring of symptoms, identify early warning signs preceding relapse, and most importantly Coping [12].

With the availability of valid tools to characterize cognitive coping strategies and means to identify adaptive and maladaptive coping styles, it would be helpful to generate coping profiles of individuals with BD I and BD II, and how they differ from each other, so that effective strategies can be identified and implemented to achieve better patient care. Specific treatment programs can be tailored made to suit individuals, focusing to strengthen existing positive and adaptive coping styles and psychoeducation targeting negative and maladaptive coping can be devised. This study will serve the purpose.

As most of the studies till date exclusively focus on either Bipolar I Disorder or Major Depressive Disorder, and hardly any published data available from Indian subcontinent, this study was undertaken to examine the coping profiles in individuals suffering from either BD I or BD II, and how they differed in cognitive coping strategies with respect to each other.

Aim and objectives

- To assess cognitive coping strategies in patients with bipolar mood disorder.
- To compare differences in cognitive coping strategies amongst patients of BD I and BD II.

Materials and methods

Study Design

This was a cross-sectional, observational, comparative study, conducted on participants consisting of patients of Bipolar Mood Disorder.

Sample size

Effective sample size of 95 was required to achieve a 99% level of confidence with a confidence interval (margin of error) of 5 %, allowing for an estimated standard deviation (SD) of 18.9.

N= (Z*SD/CI) ^2 = 95.10

Where Z=2.58, SD= 18.9 and CI=5

It was decided to achieve n=100 to further improve the significance of the study.

Study Sample

Patients (n=100) with diagnosis of Bipolar Mood Disorder as per Diagnostic and Statistical Manual fourth edition-Text Revision (DSM-IV-TR), who presented in Psychiatry OPD, at Dhiraj Hospital, Department of Psychiatry SBKSMIRC, Piparia, were included.

Inclusion Criteria

- Those participants who were willing to give written informed consent.
- Participants aged between 18 to 65 and of both gender were included in the study.

Bipolar patients were required to fulfil the following criteria:

- Patients who were diagnosed as bipolar I and II disorder as per DSM-IV-TR by psychiatrist, and confirmed by MINI International Neuropsychiatric Interview (MINI).
- Euthymic patients who were continuously stable for at least 2 months after the improvement of acute mood episode.

Exclusion Criteria

- Those participants who were not willing to give written informed consent.
- A previous diagnosis of schizophrenia or other psychotic disorder.
- Patients having mental retardation or organic mental disorder.
- Participants having serious medical illness or any substance use (other than nicotine).

Methodology

This was an observational comparative study. It begun with obtaining permission from the Sumandeep Vidyapeeth Institutional Ethics Committee (SVIEC). The synopsis for the study was approved by SVIC in May 2015. Data collection was done from May 2015 to August 2016. Prospective participants were screened by interview in person, where eligibility was confirmed to meet the inclusion criteria. For both patient group, the prior diagnosis of Bipolar Mood disorder was confirmed by using the MINI International Neuropsychiatric Interview (MINI) [14], assessing the formal criteria for a DSM-IV-TR diagnosis of either Bipolar I or Bipolar II Mood Disorder, and were included, while those with any other co-morbidity were excluded.

Written informed consent was obtained from all participants as per SVIEC requirement. Participants were assured about confidentiality of their data & were explained to answer appropriately to the questions. The structured interview consisted of a Case report form (CRF) with questions regarding demographic detail of all participants including age, gender, highest level of education, occupation, socio-economic status, family history of mental disorder etc. were collected.

The cognitive coping behaviours amongst the participants were assessed using the Cognitive Emotion Regulation Questionnaire (CERQ).

Instruments

CERQ

"The CERQ is a 36-item measure assessing nine cognitive strategies used to regulate emotion in response to threatening or stressful life events, each rated on a 5-point scale (1 = 'Almost never'; 5= 'Almost always') in terms of frequency of use. CERQ sub-scales have demonstrated good internal consistency, with alphas ranging from 0.68 to 0.86 [13]. More recently, Green, et al. [15] reported high internal consistency for the CERQ overall (0.89) in a bipolar I sample.

Data thus obtained was analysed and comprehensive cognitive coping profiles were generated for participants grouped as either BD I and BD II.

Results

Sample Characteristics

The sample consisted of 100 participants, out of which 62 were patients with Bipolar I Mood Disorder and 38 were patients with Bipolar II Mood Disorder.

Table - 1 shows the demographic details of the study participants. Of the 100 participants in the study, 62 were patients with BD I and 38 were BD II.

The participants were aged between 18 to 62 years; the mean age was 36.13 years with a Standard Deviation (SD) of 10.33 years (**Table – 2**). The mean age of patients with BD I was 35.26 years (SD=9.416) that with BD II was 37.62 years (SD=11.758). With more than 75%

of patients with BD I, and about 62% of BD II patients, were of age <40 years, suggested that BD I patients were significantly younger than BD II patients ($p<0.05$).

Table - 1: Socio-demographic details.

Socio-demographic Variable		**BD I (n=62)**	**BD II (n=38)**	**Total (N=100)**
Age	Mean	35.26	37.61	36.16
	SD	9.42	11.76	10.33
Gender	Male	40	18	58
	Female	22	20	42
Residence	Rural	34	23	57
	Urban	28	15	43
Marital Status	Unmarried	07	05	12
	Married	46	25	71
	Divorced	04	04	08
	Separated	03	03	06
	Widowed	02	01	03
Occupation	Business/ Farming	23	17	40
	Employed	05	03	08
	Student	06	04	10
	Unemployed	28	14	42
Education	Primary	07	02	09
	Secondary	19	11	30
	Higher secondary	16	08	24
	Graduation	15	09	24
	Post- Graduation	00	01	01
	Illiterate	05	07	12
Family History	Negative	37	26	63
	Positive	25	12	37
Socio-economic Status	Upper Class	02	02	04
	Upper Middle Class	21	14	35
	Middle Class	28	16	44
	Lower Middle Class	10	04	14
	Lower Class	01	02	03

Graph - 1 depicts the gender wise distribution of participants in patient subgroups. While more males (64.5%) were present in BD I patient's group, in BD II patient's group females were slightly more (52.6%) than males. With males in BD I group being more by 17.2% than in BD II group, significant difference was observed ($p<0.05$) between the two.

A majority from the 100 participants, 57% were from rural areas in either Gujarat or Madhya Pradesh, while 43% were from urban cities.

Table - 3 shows the description of coping styles on various subscales of CERQ for BD I and BD II patients.

Cognitive strategies seemed to differ amongst the bipolar subtypes.

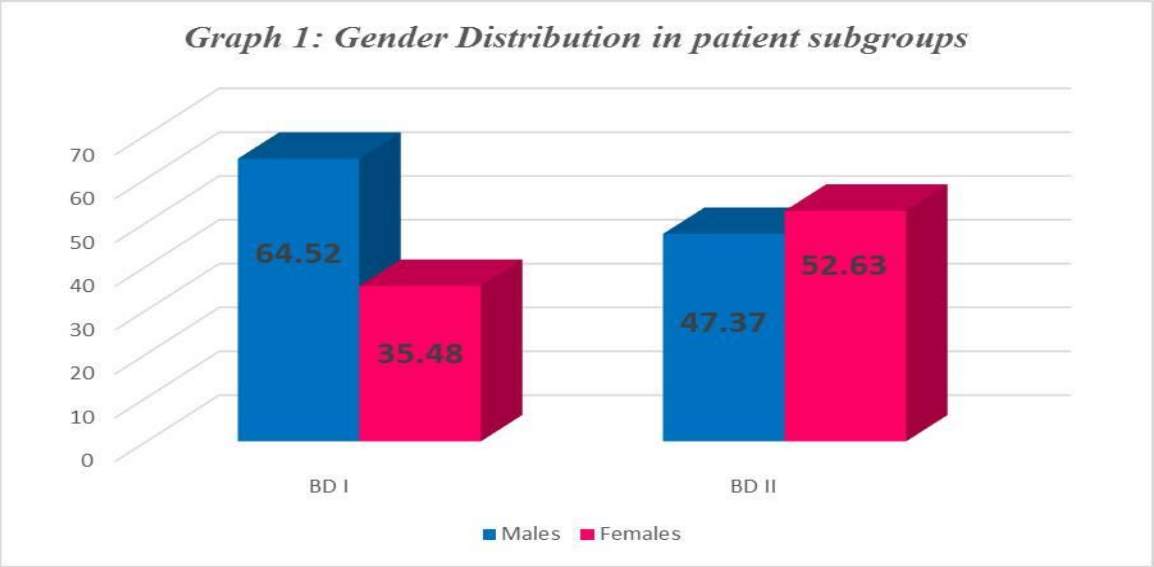
Table - 2: Age Group distribution.

Age group (Years)	BD I	BD II	Total
18-30	21	13	34
31-40	26	11	37
41-50	12	08	20
>50	03	06	09
Total	62	38	100

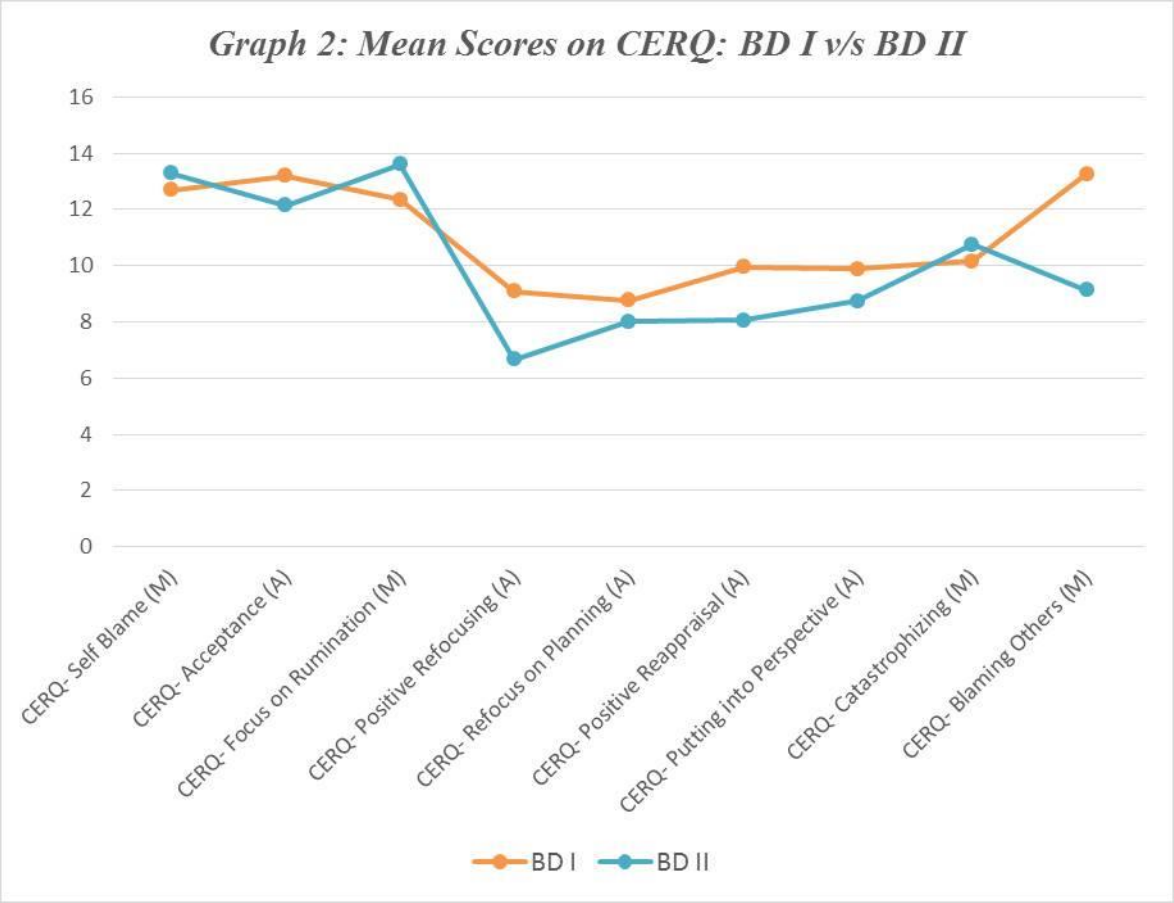
Table - 3: Coping Styles descriptives: BD I and BD II.

Questionnaire- Subscale	BD I Mean (SD) n=62	BD II Mean (SD) n=38	BD-I versus BD-II *(t-value)*
CERQ- Self Blame (M)	12.69 (0.968)	13.29 (1.469)	-2.446*
CERQ- Acceptance (A)	13.19 (1.252)	12.13 (1.379)	3.960*
CERQ- Focus on Rumination (M)	12.35 (1.392)	13.61 (1.636)	-4.076*
CERQ- Positive Refocusing (A)	9.08 (1.219)	6.66 (1.3)	9.407*
CERQ- Refocus on Planning (A)	8.76 (1.314)	8 (1.414)	2.720*
CERQ- Positive Reappraisal (A)	9.94 (1.366)	8.05 (1.432)	6.570*
CERQ- Putting into Perspective (A)	9.89 (1.631)	8.74 (1.899)	3.215*
CERQ- Catastrophizing (M)	10.16 (1.134)	10.76 (1.304)	-2.433*
CERQ- Blaming Others (M)	13.27 (1.058)	9.13 (1.51)	16.110*
ADAPTIVE	50.86	43.58	21.732*
MALADAPTIVE	48.47	46.89	-4.584
SD= Standard Deviation, A= Adaptive, M= Maladaptive, CERQ= Cognitive Emotion Regulation Questionnaire *= p<0.05.			

Graph – 1: Gender distribution in patient subgroups.



Graph – 2: Mean scores on CERQ: BD I v/s BD II.



It was found that amongst the adaptive strategies, BD I patients scored significantly higher (all $p<0.05$) on the Acceptance, Positive Refocusing, Refocus on Planning, Positive Reappraisal, and Putting into Perspective subscales of CERQ, with mean for each being 13.19 (SD=1.25), 9.08 (SD=1.22), 8.76 (SD=1.31), 9.94 (SD=1.36) and 9.89 (SD=1.63) as compared to BD II patients whose mean scores were 12.13 (SD=1.38), 6.66 (SD=1.3), 8 (SD=1.143), 8.05 (SD=1.432) and 8.74 (SD= 1.89) respectively (**Graph – 2**).

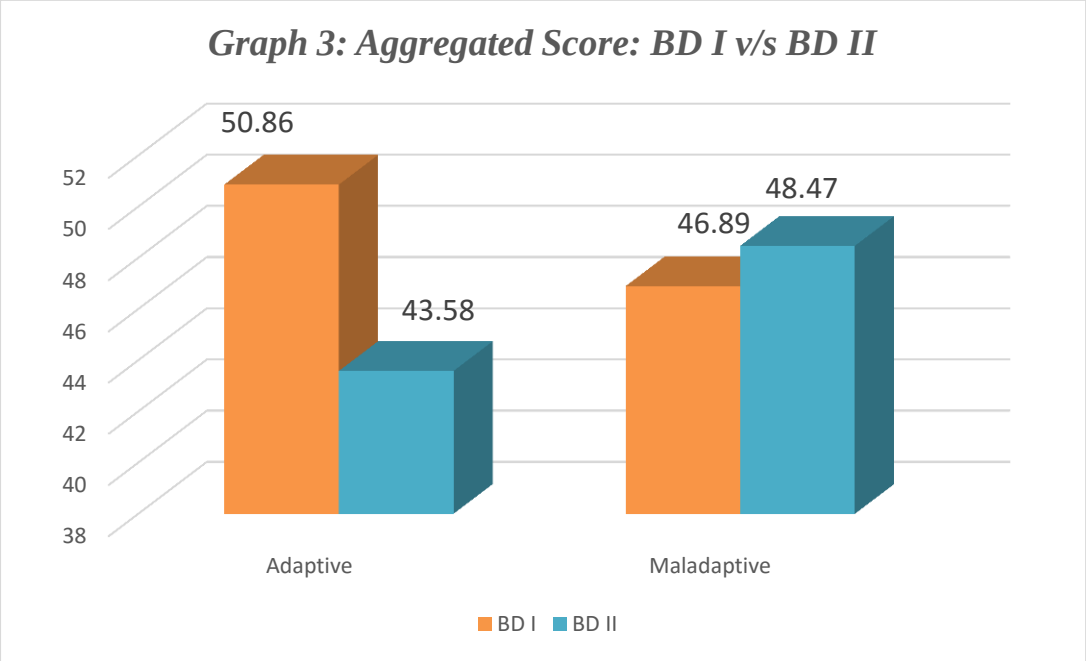
In maladaptive subscales of CERQ, BD I scored significantly higher in Blaming others, with mean score being 13.27(SD=1.058) and BD II scoring 9, 13 (SD=1.51). While BD II patients scored significantly higher (all $p<0.001$) on Self Blame, Focus on Rumination, and Catastrophizing subscales, with mean scores being 13.29 (SD=1.469), 13.61 (SD=1.636), 10.76 (SD=1.304) and 9.13 (SD=1.51) respectively, as opposed to BD I patients with mean scores of 12.69 (SD=0.968), 12.35 (SD=1.392), 10.16 (SD=1.134) and 13.27 (SD=1.058) respectively. Thus, more BD I patients scored more in adaptive strategies as measured by the subscales of CERQ than BD II patients.

Overall scores for BD I and BD II patients on adaptive and maladaptive subscales of CERQ **Graph - 3**.

BD I patients scored significantly higher ($p<0.05$) on aggregated adaptive subscales across the range of measures, mean score being 50.86 as compared to BD II patients with mean score of 43.58.

Whereas the BD II patients scored higher though not significantly ($p>0.05$) in the aggregated maladaptive subscales, mean scores being 48.47 as opposed to BD I patients with mean score of 46.89.

Graph – 3: Aggregated score: BD I v/s BD II.



Discussion

Regarding the coping differences amongst BD I and BD II patients

While analysing the results for BD I and BD II patient subgroups some differences were observed in the coping styles of the two. The results from this study indicated that the BD I patients used more adaptive coping strategies as compared to BD II patients. Various other studies also concluded the same, that BD I patients tended to use a wider range of coping strategies and use more of adaptive ones than the BD II patients [16, 17, 18].

The cognitive coping strategies amongst the bipolar subtypes differed as measured by the CERQ. It was found that amongst the adaptive subscales of CERQ, BD I patients scored higher on the Acceptance, Positive Refocusing, Refocus on Planning, Positive Reappraisal, and Putting into Perspective, with mean for each being 13.19 (SD=1.25), 9.08 (SD=1.22), 8.76 (SD=1.31), 9.94 (SD=1.36) and 9.89 (SD=1.63) as compared to BD II patients whose mean scores were 12.13 (SD=1.38), 6.66 (SD=1.3), 8 (SD=1.143), 8.05 (SD=1.432) and 8.74 (SD= 1.89) respectively.

In maladaptive subscales of CERQ, BD I scored higher on Blaming others, with mean score being 13.27 (SD=1.058) and BD II scoring 9, 13 (SD=1.51). While BD II patients scored higher on Self Blame, Focus on Rumination, and Catastrophizing subscales, with mean scores being 13.29 (SD=1.469), 13.61 (SD=1.636), and 10.76 (SD=1.304) respectively, as opposed to BD I patients with mean scores of 12.69 (SD=0.968), 12.35 (SD=1.392), and 10.16 (SD=1.134) respectively.

The Fletcher study [17] and the Green Study [15] both concluded that BD I patients scored higher on the cognitive adaptive scales as compared to patients with BD II. This might be attributed to the acceptance of some sub-syndromal depressive symptoms which the BD II patients have as part of their usual character.

The reason for failure to dampen hypomanic mood may be due to appraisal of this mood state as a positive experience rather than a problem thus the attribution of hypomanic phases to ‘feeling well again’, and stimulus seeking in attempt to up-regulate positive mood state as it increases productivity and thus not require

treatment, might be the probable explanation for such differential coping responses.

Conclusion

Patients of Bipolar I Mood Disorder use more adaptive cognitive coping strategies as compared to patients with Bipolar II Mood Disorder.

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