



Ways of coping and problem solving in individuals with bipolar affective disorder: A gender comparison

Mayank Singh^{1*}, Upendra Singh², Manisha Kiran³

¹ Faculty, Department of Psychiatric Social Work, Central Institute of Psychiatry, Ranchi, Jharkhand, India

² Faculty, Department of Psychiatric Social Work, ABVIMS & Dr RML Hospital, New Delhi, India

³ Faculty, Department of Psychiatric Social Work, Ranchi Institute of Neuro-Psychiatry & Allied Sciences, Ranchi, Jharkhand, India

Abstract

Background: Bipolar Affective Disorder (BPAD) is an episodic mental illness with varying degrees of remission period. People suffering with BPAD experiences difficulties in adapting and adjusting in their day-to-day life stresses while using coping strategies and problem-solving strategies. People suffering from BPAD from different genders may show different style of coping and problem-solving strategies.

Aim: Thus, the study aimed at assessing gender difference on ways of coping and problem-solving in individuals with BPAD.

Methodology: The study was a cross-sectional descriptive study with purposive sampling technique selecting 60 respondents from in-patient and out-patient department of a psychiatric hospital in India. Socio-demographic data sheet, Ways of Coping Skills and Problem-Solving Questionnaire was administered to collect data. Descriptive statistics and t-test was used to assess the aim of the study.

Result: Study results shows no significant gender difference on ways of coping and problem-solving skills among persons suffering with BPAD. There was significant low coping skills and problem-solving skills in the respondents.

Conclusion: The study concludes that people from both the genders suffering from BPAD have low levels of coping and problem-solving skills.

Keywords: affective disorder, life stress, coping skills, problem-solving skills

Introduction

Bipolar affective disorder (BPAD) is one of the common psychiatric diagnoses in India. Lifetime prevalence rate of BPAD in India is 2.4% ^[1]. As India is a densely populated country with a sex ratio of higher in males as per females ^[2]; the prevalence rate of BPAD in males being 2.5% and in females being 3% ^[3], suggests that there lies a considerable difference in the prevalence of the illness in context of gender. These prevalence rates also set the alarm required for the treatment of BPAD in India.

BPAD is an episodic mental illness with recurrent affective disturbances as depression, mania and/or hypomania. Though individuals diagnosed with BPAD have varying degrees of remission period it is very much clarified by previous studies that they experiences difficulties in their day-to-day living. At times many individuals with BPAD have to deal with the difficulties caused by the affective symptoms for a significant amount of their lifetime ^[4]. BPAD was found to have a devastating influence on the families when the psychosocial consequences of the illness was assessed ^[5, 6]. It was reported that individuals suffering with BPAD experience difficulty in controlling and utilizing their emotional states when under stress even in their remission. It is also a well-known fact that stressful life events in many cases become the predisposing factor for emergence of BPAD. Person suffering with BPAD keeps experiencing problems in dealing with his daily life stressful situations. Thus, the concepts of coping and problem solving becomes important factors in understanding the treatment of BPAD for long term outcome.

Coping is basically a mechanism to help any individual to adapt and adjust to the stresses of their dynamic life. People with high coping abilities can adapt to stressful life situations while people with low coping ability are prone to physical and psychological issues. Similarly, the concept of problem solving can be understood as searching and solving a problem faced in life. Both the coping and problem solving are influenced by gender. People suffering with BPAD demonstrated that negative life events were statistically correlated with severity of manic and depressive symptoms and positive life events caused functional impairment as a result of severity of manic symptoms ^[7]. It was found that young and older persons with BPAD when compared with the normal controls of their age group had significant experience of negative stressful life events ^[8]. It is evident that patients with depressive episodes significantly use avoidance coping strategies when experiencing stressful life events ^[9]. It is statistically found that enhancing positive problem-solving skills promoted positive changes in coping performances ^[10]. Previous studies found positive correlation between coping strategies and problem-solving skills in order to overcome stressful life events.

Discussion clearly shows that in India BPAD is common and gender ratio is a rising concern with higher prevalence of BPAD in Indian females the current study was planned. There is also a scarcity of research studies measuring coping and problem-solving strategies compared on gender. Hence, the study was designed to assess the gender difference of person suffering with BPAD in utilizing their coping and problem-solving skills.

Aim & Objectives

To assess the problem-solving skills and ways of coping ability in among male and female of person with Bipolar Affective Disorder.

Methodology

After taking the ethical permission from Departmental Research Committee the study was planned. Cross sectional hospital based descriptive research design was used in the study. The study was carried at inpatient and outpatient department of *Ranchi Institute of Neuro-Psychiatry and Allied Sciences*. Total 60 respondents (30 Male and 30 Female) were selected through purposive sampling technique. Participants Diagnosed with Bipolar Affective Disorder according to ICD-10, DCR^[11] were included in the study, participants having co-morbidity of any other psychiatric illness and severe physical illness were excluded from the study. Respondents were evaluated using tools – socio-demographic data sheet, problem solving scale and ways of coping questioner. Socio-demographic data sheet was used to assess Age, Education, Marital Status, Occupation and Family Type, Ways of coping questionnaire¹² developed by Lazarus &

Folkman is a 66-item scale designed to measure coping of the patient in the family. The scale consists of eight domains; Confrontive coping, Distancing, Self-Control, Seeking Social Support, Accepting Responsibility, Escape Avoidance, Painful Problem Solving, and Positive Reappraisal. Problem solving inventory (PSI)^[13] was developed by Heppner and Petersen to measure people's perceptions of their problem-solving behaviors and attitudes. The inventory has three sub-domains of problem-solving inventory – approach avoidance, personal protocol and problem-solving confidence. The PSI is 6-point Likert scale composed of 32 items, ranging from strongly agree (1) to strongly disagree (6). In problem solving inventory high score suggest poor problem-solving ability.

Statistical Analysis

The data was analyzed statistically with aid of the Statistical analysis SPSS (statistical package for social sciences) 16.0 versions. Chi square test applied for sociodemographic variables analysis and t test were used to assess difference between the group.

Result

Table 1: Socio-demographic characteristic of Participants

Variable		Group		χ^2	p
		Male (%) (n=30)	Female (%) (n=30)		
Education	Primary	13(43.3%)	18(60.0%)	2.008	.571
	Metric	6(20.0%)	3(10.0%)		
	Intermediate	6(20.0%)	5(16.7%)		
	Graduation	5(16.7%)	4(13.3%)		
Marital status	Married	22(73.3%)	27(90.0%)	2.783	0.95
	Unmarried	8(26.7%)	3(10.0%)		
Occupation	Student	6(20.0%)	0(0%)	11.390	.010
	Service	5(16.7%)	1(3.3%)		
	Self Employed	19(63.3%)	28(93.3%)		
	Un employed	0(0.0%)	1(3.3%)		
Family type	Nuclear	22(73.3%)	25(83.3%)	11.9	.522
	Joint	8(26.7%)	5(16.7%)		

Table 1 shows that 43.3% male respondents were primary educated, 20% were educated up to metric and intermediate and only 16.7% had graduated. When compared 60% female respondents were primary educated, 10% were educated up to metric, 16.7% up to intermediate and only 13.3% up to graduation. χ^2 was 2.008 with p-value of .571 when compared between the genders on the variable of education. 73.3% male and 13.3% female respondents were unmarried; 26.7% males and 10% female respondents were unmarried with χ^2 2.783 and p-value .95. When compared on occupation 20% male respondents were students, 16.7% were service men and 63.7% were self-employed; whereas 3.3% female respondents were service women, 93.3% were self-employed and 1.7% were un-employed. However, χ^2 between the genders was 11.390 with p-value .010. 73.3% male and 83.3% female respondents belonged to nuclear family and 26.7% male and 16.7% female respondents belonged to joint family. χ^2 was 11.9 with p-value .522 when compared for family type.

Table 2: Gender Comparison of Scores on Ways of Coping Questionnaire (N=60)

Variables	Male (n-30) Mean \pm S.D.	Female (n-30) Mean \pm S.D.	t (df=58)	p
Way of Coping				
Confrontive Coping	10.70 \pm 3.69	10.80 \pm 2.68	.120	.822
Distancing	9.86 \pm 2.43	9.73 \pm 2.13	.266	.905
Self-Control	12.33 \pm 2.68	12.80 \pm 2.57	.687	.495
Seeking Social Support	10.20 \pm 2.23	10.53 \pm 2.41	.555	.581
Accepting Responsibility	7.46 \pm 2.11	7.23 \pm 1.90	.449	.655
Escape Avoidance	12.86 \pm 3.96	13.60 \pm 2.79	.828	.411
Painful Problem Solving	10.93 \pm 3.24	9.70 \pm 2.52	1.64	.106
Positive Reappraisal	12.83 \pm 3.81	12.26 \pm 3.79	.577	.566

Table 2 shows the comparison between scores of male and female respondents on ways of coping questionnaire. It was found that Mean \pm SD for male respondents was 10.70 \pm 3.69 and 10.80 \pm 2.68 for female respondent with t-value .120 (p >.05) for confrontive coping, Mean \pm SD for male respondents was

9.86±2.43 and 9.73±2.13 for female respondents with t-value .266 ($p > .05$) for distancing, Mean±SD for male respondents was 12.33±2.68 and 12.80±2.57 for female respondents with t-value .687 ($p > .05$) for self-control, Mean±SD for male respondents was 10.20±2.23 and 10.53±2.41 for female respondents with t-value .555 ($p > .05$) for seeking social support, t-value was .449 ($p > .05$) for accepting responsibility, t-value was .828 ($p > .05$) for escape avoidance, t-value was 1.64 ($p > .05$) for painful problem solving and t-value was .577 ($p > .05$) for positive reappraisal. The results from table 1 show no statistical difference between male and female respondents on ways of coping questionnaire.

Table 3: Gender Comparison of Scores on Problem Solving Inventory (N=60)

Variables	Male (n-30)	Female (n-30)	t (df=58)	p
	Mean ±S.D.	Mean ±S.D.		
Problem Solving				
Problem Solving Confidence	35.53±6.00	34.50 ±6.04	1.264	.211
Approach Avoidance Scale	58.23±5.66	57.16±6.08	.651	.541
Personal Control	20.53±4.90	19.73±3.05	.190	.850

Table 3 shows that there exists no statistical difference between the scores of male and female respondents on problem solving inventory. The Mean±SD of male respondents was 35.53±6.00 and 34.50±6.04 for females with t-value 1.264 ($p > .05$) on the domain problem solving confidence. On approach avoidance scale Mean±SD was 58.23±5.66 and 57.16±6.08 for male and female respondents with t-value .651 ($p > .05$). Mean±SD for male respondents was 20.53±4.90 and 19.73±3.05 for females with t-value .190 ($p > .05$) on personal control domain.

Discussion

The study demonstrates a purposive sample of 60 respondents with mean age 33 years for females and 35 years for males diagnosed with BPAD as per ICD-10, DCR. There was a cross sectional analysis for male and female scores indicating the kind of ways of coping and problem-solving techniques was being used by them. The study design comes with its obvious limitations and makes it difficult to establish a statistical gender difference among individuals with BPAD in their use of ways of coping and problem-solving techniques with confidence. However, these data indicate that the respondents had no statistical gender difference in their ways of coping and problem-solving techniques.

The result indicates that the mean score (10) obtained by the male and female respondents for confrontive coping clearly means that the respondents fail to take confronting or risky steps to bring changes in their problematic situations. The mean score of 9.86 and 9.73 for distancing means that the respondents diagnosed with BPAD found it difficult to detach themselves from situations to think objectively for coping with the problems. Self-control domain had mean score 12.33 and 12.80 which means that the respondents failed to control their emotions when experiencing stressful situation and coping with them. Mean for Seeking social support was 10.20 and 10.53 indicates that respondents with BPAD faces problems in seeking support from family and friends to cope with situations. Accepting responsibility had the lowest mean score (7.46 and 7.23) indicating poor ability of the respondents in accepting their role in the problem that they face

and cope accordingly. Escape avoidance had a mean score of 12.86 and 13.60 indicating failure in avoiding or escaping problematic situations. Painful problem solving has mean score 10.93 and 9.70 indicating that the respondents were poor at analyzing and planning to cope with the problem situations. Positive reappraisal had mean score of 12.83 and 12.26 indicating poor skills to learn from previous trials to cope with problems. Though study results found no significant gender difference in any domain of ways of coping questionnaire. Similar to the current study other studies found that there exists no gender difference on coping strategies [14, 15, 16].

Results also indicated that no significant gender difference was found in any domain of problem solving among the respondents with BPAD. However, the results shows that problem solving confidence has a mean score of 35.53 and 34.50 indicating low level of confidence for solving problems. Approach avoidance scale has mean score of 58.23 and 57.16 indicating poor skills at using approach avoidance strategies to come up with solution for any problematic situation. Personal control mean score was 20.53 and 19.73 demonstrating poor self-control over making appropriate decisions to solve a problem being face by them.

Conclusion

The study concludes that gender difference does not exist when applying ways of coping and problem-solving skills in day-to-day life of the respondents with BPAD. The results of the study also concluded that coping skills and problem-solving skills are poor in the people suffering with BPAD.

Limitation

- Sample size being small makes the results of the study specific as it cannot be generalized to the population.

Reference

- Merikangas KR, Jin R, He J-P, Kessler RC, Lee S, Sampson NA, *et al.* Prevalence and correlates of bipolar spectrum disorder in the world mental health survey initiative. Arch Gen Psychiatry [Internet], 2011; 68:241-51. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21383262>. [Last cited on 2018 Jun 09].
- INDIA P. Census of India Provisional Population Totals, 2011.
- Murthy RS. National mental health survey of India 2015–2016. Indian journal of psychiatry. 2017; 59(1):21.
- Judd LL, Schettler PJ, Akiskal HS, Maser J, Coryell W, Solomon D, Endicott J, Keller M. Long-term symptomatic status of bipolar I vs. bipolar II disorders. International Journal of Neuropsychopharmacology. 2003; 6(2):127-37.
- Hirschfeld RMA, Calabrese JR, Weissman M. Lifetime prevalence of bipolar I and II disorders in the United States. Presented at: 155th Annual Meeting of the American Psychiatric Association; May 18–23; Philadelphia, PA, 2002.
- Practice guideline for the treatment of patients with bipolar disorder (revision). American Psychiatric Association. Am J Psychiatry. 2002; 159(4 Suppl):1-50.
- Agadjanyan MG, Petrovsky N, Ghochikyan A. A fresh perspective from immunologists and vaccine researchers: active vaccination strategies to prevent and reverse

- Alzheimer's disease. *Alzheimer's & Dementia*. 2015; 11(10):1246-59.
8. Beyer JL, Kuchibhatla M, Cassidy F, Krishnan KR. Stressful life events in older bipolar patients. *International Journal of Geriatric Psychiatry: A journal of the psychiatry of late life and allied sciences*. 2008; 23(12):1271-5.
 9. Satija YK, Advani GB, Nathawat SS. Influence of stressful life events and coping strategies in depression. *Indian journal of psychiatry*. 1998; 40(2):165.
 10. Chinaveh M. The effectiveness of problem-solving on coping skills and psychological adjustment. *Procedia-Social and Behavioral Sciences*, 2013; 84:4-9.
 11. World Health Organization. *The ICD-10 classification of mental and behavioural disorders: diagnostic criteria for research*. World Health Organization, 1993.
 12. Folkman S, Lazarus RS, Moore AD, Stambrook M. *Ways of Coping Questionnaire: Sampler Set: Manual, Test Booklet, Scoring Key*. Ways of Coping Questionnaire-revised. Consulting Psychologists, 1988.
 13. Heppner PP, Petersen CH. The development and implications of a personal problem-solving inventory. *Journal of counseling psychology*. 1982; 29(1):66.
 14. Schouws S, Dekker J, Tuynman-Qua H, Kwakman H, Jonghe F. Relation between quality of life and coping and social behaviour in depression. *Eur J Psychiatry*, 2001, 15:49-56.
 15. Ravindran AV, Griffiths J, Waddell C, Anisman H. Stressful life events and coping styles in relation to dysthymia and major depressive disorders. Variations associated with alleviation of symptoms following pharmacotherapy. *Prog Neuropsychopharmacol Biol Psychiatry*, 1995; 19:637-53.
 16. Yamada K, Nagayama H, Tsutsumi K, Kitamura T, Furukawa T. Coping behaviour in depressed patients: a longitudinal study. *Psychiatry Res*, 2003; 121:169-77.