



# Association of Socio-Demographic Variables with Stress and Marital Life in Spouses of Patients with Bipolar Disorder

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## ABSTRACT

**Background:** Bipolar Disorder is a common psychiatric disorder where spouses of patients experience higher level of perceived stress and marital adjustment problems are seen more frequently. It is important to understand the perceived stress and quality of marital life of spouses of patients with these mental illnesses as resolution of marital problems can lead to overall improvement in the outcome of the illness. Most of the studies were done in western countries where socio cultural beliefs are different from those of eastern countries. These studies were also limited by not evaluating quality of marital life and perceived stress together. This study was designed to understand the marital functioning and stress related issues for better stability of marriage. Thus, we planned to study and understand the problems amongst these individuals so as to help psychiatrists in better screening of these individuals and plan early and suitable intervention.

**Aims:** To assess and study the sociodemographic profile, perceived stress and marital adjustment of spouses of patients attending the psychiatric OPD of a tertiary care hospital.

**Methods:** The study was carried out in the Department of Psychiatry in Teerthankar Mahaveer Medical College and Research Centre, Moradabad among spouses of patients of bipolar disorder diagnosed according to ICD-11 Criteria attending the Psychiatry OPD of Teerthankar Mahaveer Medical College and Research Center. Written informed consent was obtained from the subjects. Semi-Structured Pro-forma was applied for recording the socio-demographic data. Perceived stress was assessed using the Sheldon Cohen Perceived Stress Scale (PSS-10). Marital adjustment was assessed using the Locke-Wallace Marital adjustment test (MAT). The data was then evaluated and computed for statistical analysis using Pearson's Chi-square test or Exact Fischer's Test for categorical variables and the t-test for continuous variables. The association between variables was estimated with the Pearson correlation coefficient

**Results:** The enlisted subjects' mean (SD) age was 40.66 (11.58) years, with a frequency band of 18-70 years. The mean (SD) years of duration of marriage of the enrolled subjects were 17.9 (13.3) years with a range of 1-53 years. The mean (SD) score of PSS of the enrolled subjects was 24.50 (7.45) with a range of 5-39. The mean (SD) score of MAT of the enrolled subjects was 85.84 (17.98) with a range of 29-135. The PSS score was negatively correlated with the MAT score ( $r = -0.70$ ,  $p$ -value



<0.01). There was statistically significant negative correlation was observed between age, duration of marriage, occupation, education, monthly income and socio-economic score with PSS, whereas socio-economic status was positively correlated with PSS scores. Furthermore, age and duration of marriage were statistically significantly positively correlated with MAT.

**Conclusion:** Bipolar Disorder is linked with higher stress, poor marital functioning, and poor quality of marriage in spouses. The PSS score was negatively correlated with the MAT score and statistically significant negative correlation was observed between PSS scores, MAT scores and various socio demographic factors.

**Keywords:** Bipolar disorder, marital adjustment, stress, maladjustment, spouse, caregiver, duration of marriage.

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## INTRODUCTION

Marriage is a commitment where a person must meet a variety of social and emotional obligations<sup>1</sup>. "The Oxford Dictionary" describes marriage as a "recognized coalition of man and woman as husband and wife". It is a legally recognised vowed and consensual partnership. Marriage also serves as a socially acceptable manner of satisfying the basic human urge for sexual fulfilment, as well as a foundation for procreation and family formation<sup>1</sup>.

Bipolar disorder (BD) is an episodic disorder characterised by inter-episodic recovery. However, it has been discovered throughout time that a large proportion of people with BD may have persistent symptoms even when they are in remission<sup>2,3</sup>. Studies have shown the persistence of depressive symptoms<sup>3</sup>, cognitive impairments<sup>4,5</sup>, sleep and circadian rhythm disturbances<sup>6-8</sup> and emotional dysregulation<sup>9</sup> in euthymic patients with BD. Even though syndromal recovery can occur quickly following hospitalisation, functional recovery seems to be more challenging<sup>10</sup>. Many patients have financial issues (Kleinman et al., 2003), psychological, social and occupational problems<sup>11,12</sup> substance abuse, marital failure<sup>13,14</sup>, sexual dysfunction<sup>15</sup>, neuropsychological deficits<sup>4</sup>, and suicidal ideation<sup>16</sup>, legal complications, poor quality of life<sup>15</sup>, poor parenting skills<sup>17</sup> and disability are all factors to consider<sup>3</sup>. Only a few researches have looked at the marital functioning and stress levels of spouses of Bipolar disorder patients. In the context of a shifting social fabric in which people are migrating away

from joint families and toward nuclear families, spouses become the primary caregivers for patients with psychiatric diseases such as bipolar disorder.

Hence, understanding the stress perceived by the married partners of patients with psychiatric disorders like bipolar disorder and assessing the marital harmony in the couple is imperative. Little literature is available on this subject from countries like India with quite different sociocultural backgrounds from the Western world. Therefore, we intended to evaluate the quality of marriage and stress perceived by spouses of patients with bipolar disorder.

## METHODOLOGY

### Aims

To assess and study the sociodemographic profile, perceived stress and marital adjustment of spouses of patients attending the psychiatric OPD of a tertiary care hospital in western U.P. To understand the Socio-Demographic profile of the enrolled participants based on various parameters. To compute associations and positive and negative correlations between various continuous and categorical variables using statistical analysis.

### Inclusion Criteria

Spouses of patients of Bipolar Disorder that were more than 18 years old attending the psychiatry OPD of TMMC & RC who were continuously with the patient since marriage and willing to give written informed consent were included in the study.



**Exclusion Criteria**

Spouses with any diagnosed physical illness/psychiatric illness/substance abuse disorder were excluded. Spouses who were not the Primary Caregivers<sup>18</sup> of the patient were excluded. Spouses of patients who were unstable (patients who had any exacerbations, relapses or > 50% hike in drug dose over the last 3 months) were excluded.

**Assessment Tools**

**Proforma:** It consisted of a structured format to record certain socio-demographic variables regarding the spouse of patient, such as age, marital status, duration of marriage, sex, occupation, education, religion, socio-economic status, family status, locality, and Perceived Stress Scale and Marital adjustment test scores.

**Perceived stress Scale (PSS-10)<sup>19</sup>:** by Sheldon Cohen was used to assess the Perceived Stress. It's a quick and simple way to assess how stressful certain situations are in one's life. It has high validity and reliability. It is thus a useful tool for researching the implications of stress in the causation of disease and behavioural disorders.

**Marital adjustment test (MAT)<sup>20</sup>:** This scale was used to assess Marital adjustment by Wallace et al. It has a good reliability coefficient of 0.84 and usually takes a few minutes to administer.

**Statistical Analysis**

The study data was analyzed by using the statistical software SPSS version 23.0. Histograms were also plotted to visualize the pattern of outcomes.

Pearson's Chi-square test or Exact Fischer's

Test for categorical variables and the t-test for continuous variables were used to compare sociodemographic data collected with the assessed scores from the Perceived Stress Scale and Marital Adjustment test. The statistical significance was mentioned as a p-value less than 0.05. The association between variables was investigated with a scatter plot and estimated with the Pearson correlation coefficient (represented as r).

**RESULTS**

**Socio-Demographic Data**

After the institutional ethical approval, an observational cross-sectional study was carried out in the department of Psychiatry at TMMC & RC, Moradabad, Uttar Pradesh, India. Fifty subjects were included in the present study representing the spouses of patients with Bipolar disorder. Table 1. Summarises the socio-demographic data collected from the study sample.

The highest proportion i.e. 36% of subjects were reported in the <30 years age group. The enlisted subjects' mean (SD) age was 37.16 (14.13) years, with a frequency band of 18-70 years. The highest proportion of females i.e. 54% of subjects were included in the study. More than half of the patients in the study group were Hindus, i.e. 66%.

Elementary occupation was highly reported in 26% of the subjects. Illiterate educational status was highly reported in 24% subjects and INR 6,175-18,496 of monthly family income was highly reported in 40% of the study population. 60% with the highest proportion of subjects belonged to Upper Lower Socio-Economic Status.

**Table 1: Socio-Demographic Data**

Variable Mean (SD)	Groups	N	%
<b>Age (Years)</b> 37.16 (14.13)	<30	18	36
	31-40	11	22
	41-50	11	22
	>50	10	20
<b>Gender</b>	Male	23	46
	Female	27	54
<b>Religion</b>	Hindu	33	66



	Muslim	17	34
<b>Socio Eco-nomic Status</b>	Upper	2	4
	Upper Middle	7	14
	Lower Middle	5	10
	Upper Lower	30	60
	Lower	6	12
<b>Duration of Marriage (Years) 17.9 (13.3)</b>	≤5	11	22
	6-10	10	20
	11-15	6	12
	>15	23	46

The highest proportion of subjects were having greater than 15 years of married life. It was reported in 46% of the subjects in the study population. Overall, the mean (SD) years of duration of marriage of the enrolled subjects were 17.9 (13.3) years with a range of 1-53 years.

**Assessed Data**

Table 2 summarises the assessed data collected from the fifty subjects in the sample population using the Perceived Stress Scale and the Marital Adjustment Test. Highest proportion of subjects were having

moderate PSS scores. 62% of the subjects had a Moderate Perceived Stress Score followed by 32% having a High and 6% with a low Perceived Stress Score. Overall, the mean (SD) score of PSS of the enrolled subjects was 24.50 (7.45) with a range of 5-39. Of the subjects enrolled 84% had Marital Maladjustment with a score less than 100. 16% of the subjects had a MAT score more than 100, i.e. absent Marital Maladjustment. Overall, the mean (SD) score of MAT of the enrolled subjects was 85.84 (17.98) with a range of 29-135.

**Table 2: PSS-10 and MAT Data**

Assessment Tools Mean (SD)	Outcome	N	%
<b>Perceived Stress (PSS Score)</b> 24.50 (7.45)	Low (0-13)	3	6
	Moderate (14-26)	31	62
	High (27-40)	16	32
<b>Marital adjustment (MAT Score)</b> 85.84 (17.98)	Present (≤100)	42	84
	Absent (>100)	8	16

**Correlation between PSS and MAT**

The association between PSS and MAT score, as investigated with a scatter plot and estimated with the Pearson correlation coefficient (represented as r), revealed that the PSS score had a significant and negative correlation with the MAT score (r=-0.70, p-value <0.01), as shown in Figure 1.

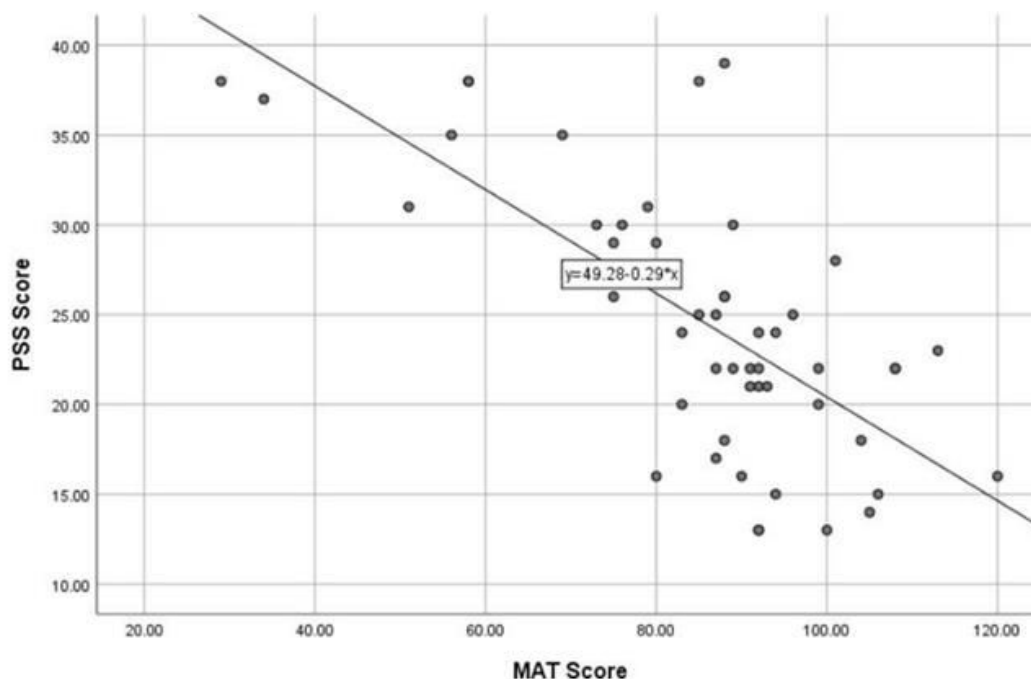
**Correlation of Socio-demographic Data with PSS and MAT Scores**

We performed the correlation between socio-demographic characteristics and PSS and MAT, detailed in Table 3. There was statistically significant negative correlation was observed between age, duration of marriage, occupation, education, monthly income



and socio-economic score with PSS, whereas socio-economic status was positively correlated with PSS scores. Furthermore, age

and duration of marriage were statistically significant and positively correlated with MAT.



**Figure 1: Correlation between PSS and MAT score**

**DISCUSSION**

Bipolar Disorder is a severe mental disorders and is often associated with several negative consequences for patients, their families, and society at large<sup>1</sup>. With the rise of nuclear families over the last few decades, spouses often become the primary caregivers for patients with psychiatric disorders. Therefore, the concerns of the spouses need to be

understood as this details from healthcare practitioners can overestimate this negative. Also, the PSS score has a negative correlation with age and duration of marriage. This can explain higher stress in the BD group with relatively lower age of spouses and duration of marriage. The cycling seen in BD highlighting the uncertainty might also be contributory.

**Table 3: Socio-Demographic Characteristics with PSS and MAT**

Socio-Demographic Variable	Statistical Result	PSS Score	MAT Score
Age	r	-.50**	.53**
	p-value	0.00	0.00
Gender	r	.29*	-0.16
	p-value	0.04	0.27
Religion	r	0.20	-0.04
	p-value	0.16	0.77
Duration of Marriage (Years)	r	-.53**	.58**
	p-value	0.00	0.00
Duration of Marriage (Groups)	r	-.78**	.71**
	p-value	0.00	0.00
Socio Economic Score	r	-.33*	0.23
	p-value	0.02	0.11
Socio Economic Status	r	.29*	-0.21



	p-value	0.04	0.14
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\*Correlation is significant at 0.05 level (2-tailed)

\*\*Correlation is significant at 0.01 level (2-tailed)

Determines the continuation of the caregiver role of spouses. There is limited literature on the subject, especially in the Indian setup. Moreover, the little information available is from the West with different socio-cultural factors related to marriage. As a result, it is critical to The current study's mean age of spouses of BD patients is similar to that reported in Indian studies evaluating spouses of BD patients. In a recent study, Mukhopadhyay S et al evaluated stress levels, marital fulfillment, and sexual contentment between the 100 spouses of males with comorbid BD and alcohol use disorder and those with BD alone<sup>21</sup>. The mean age was 37.1±7.5 which is very close to that observed in the current study. In another study by Drisya P et al<sup>22</sup>, most female spouses belonged to the 41-50 years age group followed by the 51-60 years age group and nearly 25% belonged to the 31-40 years age group while most male spouses belonged to >60 year age group followed by 51-60 year age group. The difference observed between the current study and the study by Drisya P et al may be explained by different study locations with different catchment areas.

In patients with BD, the male gender slightly predominated (54%). A recent review by Dell'Osso et al<sup>23</sup> suggests probable female preponderance. This reported that BD is misdiagnosed as Major Depressive disorder. Dell'Osso et al also reported females with BD to have an elevated incidence of rapid cycling, suicide attempts and depressive polarity than males, indicating non-inferior severity. Prompt diagnosis and treatment of BD are thus critical for lowering risks and improving the standard of living of affected women. In the study by Drisya et al<sup>22</sup>, 66 of 125 BD In this study, there was a significant negative correlation between age, duration of marriage, occupation, education, monthly

comprehend the marital issues that exist between the patients and their spouses. The current study assessed marital functioning (in the form of marital adjustment, quality of marriage and marital forgiveness), sexual satisfaction and sexual dysfunction in spouses of individuals with Bipolar Disorder. patients were females while 59 were males. The disparity in gender distribution observed in the current study and that by Drisya et al might be due to the different catchment areas of the respective hospitals.

94% in the BD group perceived moderate to high stress in this current study. For spouses of patients with BD, there is limited literature on the subject. A recent systematic review by Azorin JM et al suggests a negative impact on the lives of spouses of patients with BD<sup>24</sup>. The negative influence is primarily manifested in terms of caregiver burden, self-sacrifice, emotional impact and health issues. Furthermore, a lack of concern and 84% in the BD group had marital maladjustment in the current study. The frequency of maladjustment was quite high in the BD group. The mean MAT scores were lower in the BD group suggesting maladjustment. There has been limited research into how BD affects marital structure and function. Most studies have compared bipolar disorder-normal couples' dyadic adjustment to healthy couples and discovered that BD-normal couples had poor marital adjustment. When compared with healthy individuals, partners of patients scored low in agreement, togetherness, and demonstrations of intimacy in their relationship, ranked their spouses fairly low on good and greater on bad qualities and reported receiving minimal practical and emotional assistance from their partners<sup>25</sup>.

income and socio-economic score with PSS, whereas socio-economic status was positively correlated with PSS scores.



Furthermore, age and duration of marriage were statistically significant and positively correlated with MAT. Clinical factors of marital function were also researched in people with BD and their spouses. Manic manifestations had been connected to partners' evaluations of the romantic relationship, whereas symptoms of depression had been connected to patient evaluations of general family performance and couple functioning<sup>26</sup>. Another study reported that when patients were ill, partners perceived more marital disharmony which worsened during manic than depressive phases. When partners believed that the patient could control their illness, had more household responsibilities or were sexually discontent, marital discord was also more likely<sup>27</sup>. However, the correlation with the disease-related factors were not evaluated in the current study.

## CONCLUSION

Bipolar Disorder is linked with higher stress, poor marital functioning, and poor quality of marriage in spouses. Most of the spouses in the current study were middle-aged. There is slight female preponderance observed with bipolar disorder. Strikingly, only 3-5 % of study subjects (spouses) were unemployed irrespective of their education status.

Nearly 94% of the sample population perceived moderate to high stress. Around 84% in the study group had marital maladjustment.

As expected, the PSS score was negatively correlated with the MAT score. The degree of correlation was significant at the  $p$ -value < 0.05 level. Also, there was statistically significant negative correlation was observed between

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age and duration of marriage with PSS score. However, age, gender, religion and duration of marriage were statistically significant and positively correlated with MAT.

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