

### Determinants of Bipolar Disorder

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#### Abstract

**Background:** Bipolar disorder is one of the mental disorder which is characterized by periods of abnormally elevated mood and depression

**Aims:** To find the sociodemographic determinants of bipolar patients.

**Materials & Methods:** The present study which was observational and cross-sectional study, was conducted over a period of 2 months and involved 130 patients suffering from bipolar affective disorder who were receiving services at outpatient department of Government Psychiatric Diseases Hospital Jammu which serves to whole Jammu province. Sociodemographic determinants like age, sex, religion, marital status, educational status etc were studied.

**Results:** Maximum percentage of patients i.e.36.9% belongs to age group of 21 to 40 years. Males (63.1%) outnumbered females (36.9%). Majority i.e. 67.7% patients belongs to rural areas, 76.2% were Hindu and 72.3% were married. 58.5% patients were from joint

families, 71.5% were educated, 72.3% were employed and 58.5% belongs to lower socioeconomic class.

**Conclusion:** Majority of the bipolar patients were between 21 to 40 years of age, males, from rural background who lives in joint families, were married, educated, employed and belongs to low socioeconomic class. Hence it is suggested that better screening and early management of these patients by clinicians and health workers will help in early identification and better prognosis of these patients.

**Keywords:** Bipolar patients, Prevalence, Stigma

#### Introduction

Bipolar disorder is one of the mental disorder which is characterized by periods of abnormally elevated mood and depression. It is known as mania if the elevated mood is significant and associated with psychotic features whereas in less severe cases with absence of psychotic symptoms it is termed as hypomania. During manic episode, an individual feels or behaves abnormally irritable, energetic or happy. There may be poor decision making without any regard to

consequences with reduced need for sleep.<sup>1</sup> In case of bipolar depressive episodes there may be a negative outlook on life with poor eye contact with others and excessive crying. Within the 20 years of illness, self harm occurs in 30-40 percent cases whereas the risk of suicide among those with illness is also high at greater than 6 percent.<sup>2</sup> The bipolar disorder of modern times was initially discussed as the manic depressive psychosis, the term which was given by Emil Kraepelin in 1889. As per Kraepelin, manic depressive psychosis differs from dementia praecox due to the absence of dementing and deteriorating course.<sup>1</sup>

Due to its severity, chronicity and early onset, bipolar disorder is a disabling illness. It is one of the top five causes of substance abuse and mental disorder burden. Worldwide it is among the top 20 leading causes of disability. The burden of bipolar disorder has increased due to the current trends in population growth and aging. In the year 1990, there were 32.7 million cases of bipolar disorder globally which rises to 48.8 million by the year 2013. In 2013, bipolar disorder is responsible 9.9 million DALYs (disability-adjusted life years) accounting for 1.3% of total YLDs (years lived with disability) and 0.4% of total DALYs.<sup>3</sup> Across the globe, enormous amount of research has been done in the field of bipolar disorder<sup>4</sup> but there is lack of data in our setup. Hence we conducted this study to find socioeconomic determinants of bipolar patients.

### **Methodology**

The present study which was observational and cross-sectional study, was conducted over a period of 2 months and involved patients suffering from bipolar affective disorder who were receiving services at outpatient department of Government Psychiatric Diseases Hospital Jammu which serves to whole Jammu province. Patients were only included in the

study if they are diagnosed according to DSM 5 diagnostic criteria.<sup>5</sup> On alternate OPD, the first 5 alternate patients who were diagnosed as bipolar patients were selected for the study. Sociodemographic determinants like age, sex, religion, marital status, educational status etc were studied.

### **Statistical analysis**

Analysis of data was done using statistical software MS Excel / SPSS version 17.0 for windows. Data presented as percentage (%) as discussed appropriate for quantitative and qualitative variables.

### **Observation and results**

Table 1 shows 36.9% patients were between 21 to 40 years, 23.1% were below 20 years, 21.5% were above 60 years and 18.5% were between 41 to 60 years of age. There were about 63.1% patients who were males and 36.9% who were females. 67.7% patients were from rural areas and 32.3% were from urban areas.

Figure 1 shows that 76.2% of the studied patients were Hindu, 20% were Muslims and 3.8% belongs to other religion.

Figure 2 shows that the majority i.e. 72.3% were married followed by 23.8% unmarried, 3.1% divorced and 0.8% widowed.

Figure 3 shows that 41.5% of the studied patients lives in nuclear families while 58.5% patients live in joint family.

Figure 4 shows that 71.5% bipolar patients were educated and 72.3% of them were employed.

Figure 5 shows that 58.5% bipolar patients belongs to lower socioeconomic class followed by 34.6% who belongs to middle socioeconomic class and 6.9% who belong to upper class.

Table 1 shows age, sex and residence of the studied patients.

	Number of patients	Percentage (%)
Age (in years)		
≤20	30	23.1
21-40	48	36.9
41-60	24	18.5
>60	28	21.5
Sex		
Males	82	63.1
Females	48	36.9
Residence		
Rural	88	67.7
Urban	42	32.3

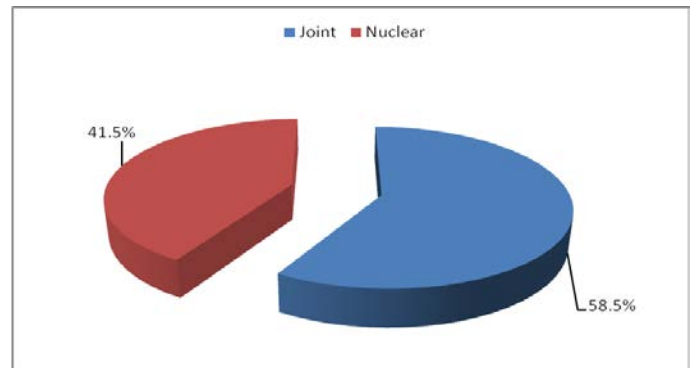


Figure 3 shows the type of family of the studied patients.

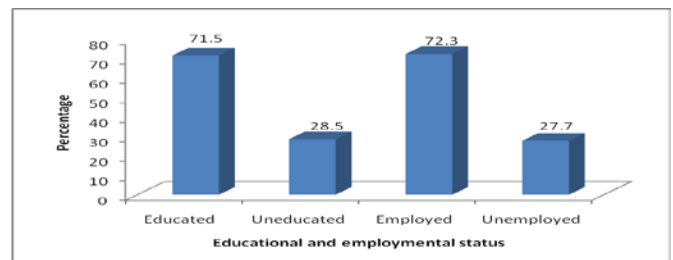


Figure 4 shows educational and employment status of studied patients

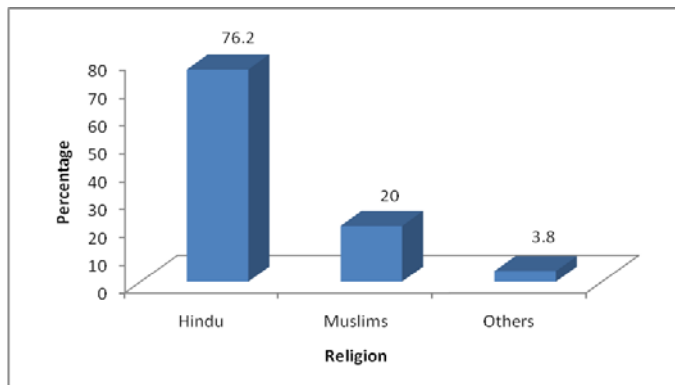


Figure 1 shows religion status of the studied patients.

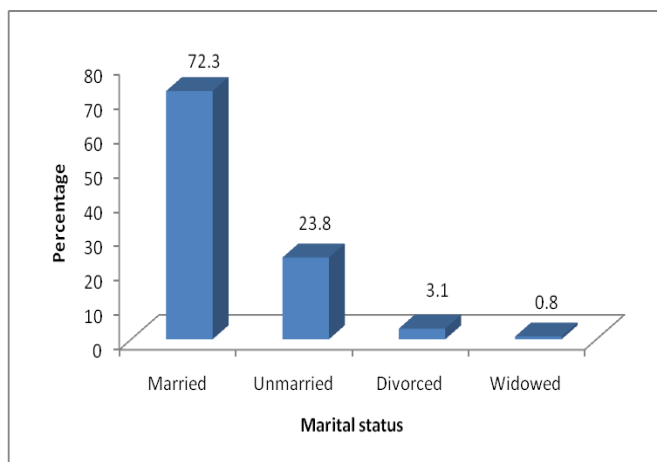


Figure 2 shows marital status of the studied patients.

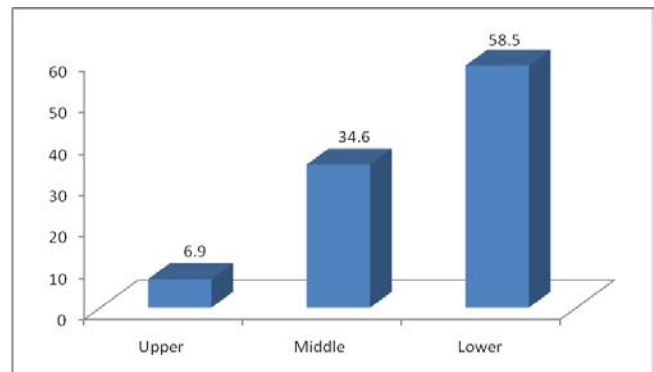


Figure 5 shows socioeconomic class of the studied patients

### Discussion

In the present study majority of the patients i.e. 36.9% were in the age group of 21 to 40 years whereas 23.1% were in the age group of below 20 years, 21.5% were in the age group of above 60 years and 18.5% were in the age group of 41 to 60 years. Bipolar disorder tend to affect that section of society which is economically productive with a mean age of onset of 30 years.<sup>1</sup> Moreover after 4<sup>th</sup> decade of life, the prevalence bipolar disorder decreases.<sup>4</sup> Other studies had also observed

that majority of the bipolar patients were below 40 years of age.<sup>6,7,8,9</sup>

There are about 63.1% males and 36.9% females. Although there is equal prevalence of bipolar disorder in males and females<sup>1</sup> but the reporting of bipolar male patients is more than the female bipolar patients in our set up which can be due higher prevalence of substance abuse among males which precipitates the psychiatric illness.<sup>10</sup> Our finding is in agreement with Nehra R et al who observed that 64% of the bipolar patients were males.<sup>11</sup> Chakrabarti S and Gill S had also observed that 68% of bipolar patients were males.<sup>12</sup> Similarly Grover S et al and Yannawar PB et al had observed that majority of the bipolar patients were males compared to female ones.<sup>13,14</sup> However some studies had observed that bipolar disorder is more common among females.<sup>7,8,9,15,16</sup>

67.7% patients were from rural areas compared to 32.3% patients who were from urban areas. As per census India 2011 majority of the Indian lives in rural areas<sup>17</sup> and due to lack of lack of psychiatrist in rural areas, majority of these are referred to psychiatric diseases hospital Jammu as it is the only tertiary care hospital of the Jammu division which has both IPD and OPD facilities for the psychiatric patients.<sup>18</sup> Moreover due to stigma related issues, patients from urban areas prefer to take consultations from a private psychiatrist.<sup>19</sup> Various studies had observed that majority of the bipolar patients were from urban areas.<sup>11-14</sup>

Majority of the studied patients i.e. 76.2% were Hindu followed 20% Muslims and 3.8% patients who belongs to other religion. India is a vast country population wise which is dominated by Hindu's followed by Muslims and others.<sup>18</sup> The finding of ours is similar to Grover S

et al who observed that 74% of the bipolar patients were Hindu.<sup>13</sup>

In the present study, 72.3% patients were married, 23.8% were unmarried, 3.1% were divorced and 0.8% were widowed. Although bipolar disorder is more common among single individuals<sup>1</sup> but in our culture marriage brings more responsibilities and financial difficulties which may act as a precipitating factor bipolar disease. Chakrabarti S and Gill S had also observed that 76% bipolar patients were married.<sup>12</sup> Similarly Nehra R et al and Grover S et al had also observed that majority of the bipolar patients were married.<sup>11,13</sup> Results similar to us were also found by other studies.<sup>6,7,8,15,16</sup>

58.5% patients belonged to joint families and 41.5% belongs to nuclear family. The finding in our study shows that percentage of bipolar patients living in joint families exceeds those living in nuclear families. The reason for this can be that the majority of our studied patients were from rural areas and the joint family system is the most common type of family system in rural India.<sup>18</sup> Our finding is in agreement with Nehra R et al who found that 60% bipolar patients live in joint families.<sup>11</sup> Other studies had also observed similar results.<sup>12,13</sup>

Majority of the patients i.e. 71.5% were educated whereas only 28.5% were uneducated. Now a days, majority of the Indians are receiving formal school education as result of which literacy rates are increasing<sup>17,19</sup> which contributes to higher number of educated patients in our study. The finding of ours is in accordance with Gania AM et al who found that 64% of the bipolar patients were educated<sup>8</sup> whereas as Barua A et al had observed that 72% psychiatric patients including bipolar patients were educated.<sup>7</sup>

72.3% patients in our study were employed and only 27.7% were unemployed. Although the prevalence of psychiatric disorders including bipolar disorders is more in unemployed persons but there is higher proportions of employed patients in our study due to the reason that employed patients are financially more sound and have higher drug purchasing power compared to unemployed patients and hence takes the psychiatric consultations more frequently than the unemployed ones. Other studies had also observed that majority of the bipolar patients were employed.<sup>6,8,13</sup>

58.5% patients in our study belongs to lower socioeconomic class compared to 34.6% who belongs to middle socioeconomic class and 6.9% who belongs to upper socioeconomic class. Psychiatric disorders are more prevalent in those who belongs to lower socioeconomic class<sup>7</sup> and the psychiatric morbidity rates decreases with the increase in the socioeconomic status.<sup>10,12</sup> Our finding is in accordance with Gania AM et al who observed that 60% bipolar patients belongs to lower socioeconomic class.<sup>8</sup> Similarly other studies had also observed that majority of the bipolar patients belongs to lower socioeconomic class.<sup>12,16</sup>

### Conclusion

From present study, we conclude that majority of the bipolar patients were between 21 to 40 years of age, males, from rural background who lives in joint families, were married, educated, employed and belongs to low socioeconomic class. Hence it is suggested that better screening and early management of these patients by clinicians and health workers will help in early identification and better prognosis of these patients.

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