Original Article

Neuro-psychiatric profile of university students attending psychiatry outpatient department of a tertiary care centre

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Abstract

Background: Mental health problems are on the rise in young population because of multiple sources of stress and pressure to excel in the competitive environment, especially depression, substance use disorders and suicide in developing countries.

Aims: To assess neuro-psychiatric profile of university students attending psychiatry OPD of a tertiary care centre.

Method: All the university students who attended psychiatry OPD were assessed for Neuro-psychiatric problems using DSM-IV TR criteria for psychiatric/behavioural problems and Harrison's principles of internal medicine criteria for Neurological problems.

Results: The common diagnoses were depression 63(19.3%), tension headache 40(12.3%) anxiety disorder NOS 38(11.7%), dhat syndrome 34(10.4%), obsessive compulsive disorder 29(8.9%), migraine 28(8.6%), conversion disorder 14(4.3%), primary insomnia 11(3.4%), schizophrenia 7(2.1%), mania 6(1.8%), seizure disorder 6(1.8%), generalised anxiety disorder 6(1.8%), substance use disorder 5(1.5%).

Conclusion: This study gives us an insight into the mental health of university students.

Keywords: Neuro-psychiatric problems; mental illness; university students

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Introduction:

Mental health is defined by WHO as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community”. Mental and behavioural disorders are common, affecting more than 25% of all people at some time during their lives. They are also universal, affecting people of all countries and societies, individuals of all age groups, males and females, the rich and the poor, from urban and rural environments. They have an economic impact on societies and on the quality of life of individuals and families.

At any point of time, about 10% of the adult population is suffering from mental and behavioural problems[1]. Mental health problems was on the rise in young population because of multiple sources of stress and pressure to excel in the competitive environment especially depression, substance use disorders and suicide in developing countries. There was limited data on the overall psychiatric morbidity in student population from India

Material and Methods:

All the students of University who attended Psychiatry OPD during twelve month period starting from 01st January 2013 to 31st December 2013 were included in the study. Initially, the students were evaluated in detail by a junior resident or senior resident and then seen by the consultant in charge, who made the diagnosis. Psychiatric/behavioural problems were diagnosed using criteria laid down by Diagnostic and Statistical Manual of Mental Disorders (4th ed., text revision, American Psychiatric Association, 2000) and Neurological problems were diagnosed using criteria of Harrison's principles of internal medicine (18th ed., 2001). Follow up appointment and old cases were not included in the study. This study was conducted in a tertiary level hospital which is situated in the campus of the University.

Statistical analysis:

Continuous variables were expressed as mean ± standard deviation (Gaussian distribution), range and qualitative data were expressed as percentage. Chi-square test was used to compare qualitative data. All p-values were two tailed and values of p < 0.05 were considered statistically significant. All confidence interval were calculated at 95% level. All Statistical analysis was done using SPSS software.

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RESULTS:
Out of total 8445 cases registered in psychiatry OPD in one year, 3.6% (326) were students. The proportion of male, female, residential (residing in the hostel provided by the university) and non residential (not residing in the hostel) students of the total patient of psychiatry OPD were 2.7%, 0.1%, 2.1%, 1.6% respectively. Forty two (12.8%) students were referred from university health service, 158 (48.5%) referred from other specialities and 126 (39.1%) came directly. The mean age of the students was 20.1±3.5 yrs, mostly male (75%), unmarried (95.4%), graduates (62.2%) residing in the hostels (56.1%) as shown in table1.

The common diagnoses (table 2) were depression 63(19.3%), tension headache 40(12.3%) anxiety disorder NOS 38(11.7%), dhat syndrome 34(10.4%), obsessive compulsive disorder 29(8.9%), migraine 28(8.6%), conversion disorder 14(4.3%), primary insomnia 11(3.4%), schizophrenia 7(2.1%), mania 6(1.8%), seizure disorder 6(1.8%), generalised anxiety disorder 6(1.8%), substance use disorder 5(1.5%). No formal psychiatric diagnosis was made in 21(6.4%) students. Table2 shows diagnostic comparison between males and females. Anxiety disorder NOS was more common in females and the difference was statistically significant. Depression was more common in males and tension headache as well as conversion disorder was more in females but the difference was not statistically significant. Table2 shows diagnostic comparison of residential and non residential students. Anxiety disorder NOS, tension headache and dhat syndrome were more in non residential students while depression was more in residential students but difference was not significant. Other diagnosis can’t be compared due inadequate subjects in the diagnostic categories.

DISCUSSION:
This University imparts education from basic schooling (class1 to XII) to bachelors, masters and PhD degree in various disciplines (medicine, engineering, commerce, arts, social sciences, management and humanities). It caters students from different states of India, Bangladesh, Nepal and countries of Middle East. Most of the students belong to Bihar, Jharkhand, Jammu Kashmir, Uttar Pradesh, West Bengal and Kerala. Majority of the students reside in the hostels and are Muslim by religion. Mental health among college students is a growing concern. This is because they have reached an important period of life in which mental health problems commonly start. Mental disorders account for nearly half of the disease burden for young adults in the United States[2] and most of these disorders have their first age of onset by 24 years[3]. The college years represent a developmentally challenging transition to adulthood, and untreated mental illness may have significant implications for academic success,[4] productivity,[5] substance use,[6,7] and social relationships.[8] Indian studies on university students have been mainly over drug abuse,[9] smoking,[10] psychological distress,[11,12] and suicide.[13,14]

Neuro-psychiatric morbidity of 3.6% of the total patients of psychiatry OPD in university students in this study is low as compared to 5.1% reported by Rao, et.al[14]. High prevalence was reported by Wig, et.al[15] and Sharma, et.al[16] from data of university health centres. This may be due to lack of awareness about mental illness, stigma of being labelled as mentally ill in attending psychiatry OPD or handling of emotional problems by themselves with the help of peers. The psychiatric morbidity among residential students was somewhat higher may be due to lack of familial support in dealing with day to day emotional distress.

Majority of the students who attended psychiatry OPD are male, and this can be due to hesitant attitude of female students in seeking treatment from male doctors due to nature of their emotional problems and religious/cultural background; and this matched with the findings of Okasha, et.al. Females account only 1/4th of the total university students, so it can be another factor. Majority of them being unmarried can be explained from the delayed trends of marriage in our country.
<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Male</th>
<th>Female</th>
<th>P value</th>
<th>Residential students</th>
<th>Non Residential students</th>
<th>P value</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>46(18.0%)</td>
<td>17(20.7%)</td>
<td>0.895</td>
<td>36(19.7%)</td>
<td>27(18.9%)</td>
<td>0.734</td>
<td>63(19.3%)</td>
</tr>
<tr>
<td>Tension Headache</td>
<td>28(11.5%)</td>
<td>12(14.6%)</td>
<td>0.556</td>
<td>22(12.0%)</td>
<td>18(12.6%)</td>
<td>0.816</td>
<td>40(12.3%)</td>
</tr>
<tr>
<td>Anxiety disorder NOS</td>
<td>21(8.6%)</td>
<td>17(20.7%)</td>
<td>0.001(chi square-10.37)</td>
<td>17(9.3%)</td>
<td>21(14.7%)</td>
<td>0.092</td>
<td>38(11.7%)</td>
</tr>
<tr>
<td>Dhat Syndrome</td>
<td>32(13.6%)</td>
<td>0</td>
<td></td>
<td>17(9.3%)</td>
<td>17(11.9%)</td>
<td>0.469</td>
<td>34(10.4%)</td>
</tr>
<tr>
<td>OCD</td>
<td>26(10.7%)</td>
<td>3(3.7%)</td>
<td></td>
<td>21(11.5%)</td>
<td>8(5.6%)</td>
<td></td>
<td>29(8.9%)</td>
</tr>
<tr>
<td>Migraine</td>
<td>21(8.6%)</td>
<td>7(8.5%)</td>
<td></td>
<td>17(9.3%)</td>
<td>11(7.7%)</td>
<td></td>
<td>28(8.6%)</td>
</tr>
<tr>
<td>Conversion disorder</td>
<td>8(3.3%)</td>
<td>6(7.3%)</td>
<td></td>
<td>6(3.3%)</td>
<td>8(5.6%)</td>
<td></td>
<td>14(4.3%)</td>
</tr>
<tr>
<td>Primary Insomnia</td>
<td>9(3.7%)</td>
<td>2(2.4%)</td>
<td></td>
<td>8(4.4%)</td>
<td>3(2.1%)</td>
<td></td>
<td>11(3.4%)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>5(2.0%)</td>
<td>2(2.4%)</td>
<td></td>
<td>4(2.2%)</td>
<td>3(2.1%)</td>
<td></td>
<td>7(2.1%)</td>
</tr>
<tr>
<td>Mania</td>
<td>5(2.0%)</td>
<td>1(1.2%)</td>
<td></td>
<td>5(2.7%)</td>
<td>1(0.7%)</td>
<td></td>
<td>6(1.8%)</td>
</tr>
<tr>
<td>Generalised Anxiety disorder</td>
<td>4(1.6%)</td>
<td>2(2.4%)</td>
<td></td>
<td>3(1.6%)</td>
<td>3(2.1%)</td>
<td></td>
<td>6(1.8%)</td>
</tr>
<tr>
<td>Seizure disorder</td>
<td>5(2.0%)</td>
<td>1(1.2%)</td>
<td></td>
<td>1(0.5%)</td>
<td>5(3.5%)</td>
<td></td>
<td>6(1.8%)</td>
</tr>
<tr>
<td>Substance use disorder</td>
<td>4(1.6%)</td>
<td>1(1.2%)</td>
<td></td>
<td>2(1.1%)</td>
<td>3(2.1%)</td>
<td></td>
<td>5(1.5%)</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>3(1.2%)</td>
<td>1(1.2%)</td>
<td></td>
<td>1(0.5%)</td>
<td>3(2.1%)</td>
<td></td>
<td>4(1.2%)</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>2(0.8%)</td>
<td>0</td>
<td></td>
<td>2(1.1%)</td>
<td>0</td>
<td></td>
<td>2(0.6%)</td>
</tr>
<tr>
<td>Stuttering</td>
<td>2(0.8%)</td>
<td>0</td>
<td></td>
<td>2(1.1%)</td>
<td>0</td>
<td></td>
<td>2(0.6%)</td>
</tr>
<tr>
<td>Adjustment disorder</td>
<td>2(0.8%)</td>
<td>0</td>
<td></td>
<td>2(1.1%)</td>
<td>0</td>
<td></td>
<td>2(0.6%)</td>
</tr>
<tr>
<td>Personality disorder</td>
<td>0</td>
<td>2(2.4%)</td>
<td></td>
<td>1(0.5%)</td>
<td>1(0.5%)</td>
<td></td>
<td>2(0.69%)</td>
</tr>
<tr>
<td>Premature ejaculation</td>
<td>2(0.8%)</td>
<td>0</td>
<td></td>
<td>2(1.1%)</td>
<td>0</td>
<td></td>
<td>2(0.6%)</td>
</tr>
<tr>
<td>Somatisation disorder</td>
<td>1(0.4%)</td>
<td>1(1.2%)</td>
<td></td>
<td>0</td>
<td>2(1.4%)</td>
<td></td>
<td>2(0.6%)</td>
</tr>
<tr>
<td>Psychotic disorder NOS</td>
<td>2(0.8%)</td>
<td>0</td>
<td></td>
<td>1(0.5%)</td>
<td>1(0.7%)</td>
<td></td>
<td>2(0.6%)</td>
</tr>
<tr>
<td>No Diagnosis</td>
<td>17(7.0%)</td>
<td>6(7.4%)</td>
<td></td>
<td>15(8.2%)</td>
<td>6(4.2%)</td>
<td></td>
<td>21(6.4%)</td>
</tr>
</tbody>
</table>
In our study, unipolar depression was the most common diagnosis accounting for 19.3% of all diagnosis which is approximately equal to the rate of depression of 16.2% in the general University sample of Uganda reported by Ovuga, et.al. [17] but higher than 12% reported by Okasha, et.al. [17] from the university of Egypt and was less than 32.1% reported by Bostanci, et.al. [19] in university students of Turkey. Prevalence of depression in medical college students of India reported to be 45.3% by Gupta, et.al. [20] and 71.2% by Kumar, et.al. [21] in which majority (80%) were of mild type. We found depression was more in males and residential students but the difference was not statistically significant, this finding was in contrast to the findings of Okasha, et.al. [17] which reported almost equal proportion in both males and females.

Tension headache is the second most diagnosis representing 12.3% of all diagnosis and it was more in females and non-residential students. This finding was higher than 3% reported by Okasha et.al. [17] It can be due to multiple sources of stress, less tolerance, limited coping ability of females and more caring attitude of family members in non-residential students. Migraine was diagnosed in 8.6% of all cases. It was less than 12.4% reported by Demirirkiran et.al. [22] in the university students of Turkey and it was almost similar to 9.6% reported by Wakab et al., [23] among university students of Nigeria.

Overall, anxiety disorder represented 24.2% of all diagnoses which is less than 36% reported by Okasha et.al. [17] and Inam et.al. [24] In earlier studies no attempts were made to divide anxiety disorder in subgroups. In our study, we sub-classified anxiety disorder into subgroups, and anxiety disorder NOS (not otherwise specified) was the most common diagnosis representing 11.7% of all diagnosis and 48.1% of anxiety disorder group and it was more common in females and non-residential students. Next common diagnosis in this group was obsessive compulsive disorder (OCD) accounting for 8.9% of all diagnosis and 36.7% of anxiety disorder group and only 6 cases of generalised anxiety disorder, 4 cases of agoraphobia and 2 cases of panic disorder were diagnosed. So, unspecified symptom of anxiety was more commonly reported by student and hence raised the prevalence of anxiety disorder in students as reported in other previous studies [17, 24].

Dhat syndrome is the fourth most common diagnosis in males representing 10.4% of all diagnosis and only two cases of premature ejaculation was found in our study. It was less than reported by other previous studies. Bagadia et.al [25] studied 258 male subjects for sexual problems in a tertiary care hospital and found anxiety over nocturnal emission (65%) and passing semen in urine (47%) were the main problems in the unmarried group; while impotence (48%), premature ejaculation (34%) and passing semen in urine (47%) were common in married group. Gupta et.al [26] evaluated 150 patients for psychosexual problems. Among them, erectile dysfunction (34%) was the commonest problem, followed by premature ejaculation (16.6%), Dhat syndrome (15.3%), and nocturnal emission (14%). This may be due to the higher educational status of university students. No sexual problem being reported by females may due to hesitant and shy attitude of females in discussing this kind of problem with male doctors.

Conversion disorder was found in 4.3% of all cases and it was more in females and non-residential students. It was more than 3% reported by Okasha et.al [17] in university students of Turkey. It was more reported by females and non-residential students and could be because of getting secondary gains at home and having histrionic personality traits.

Primary insomnia without any co-morbid psychotic or medical illness accounted for 3.4% of all diagnosis and it was less than 14.6% reported by Palos et.al [27] in undergraduate students of Japan, in which all the insomniacs were included, the primary and secondary insomnia were not differentiated.

Seizure disorder accounted for 1.8% of all diagnosis and it was less 3% reported by Okasha et.al [17] in university students and 5% prevalence reported by Ray et.al from India. [28] This may be due less reporting by students and seeking treatment in their home town.

Only 7(2.1%) cases of schizophrenia, 6(1.8%) cases of mania, 5(1.5%) cases of substance use disorder were recorded which is less than reported by Okasha et.al [17] and Rao et.al [14]. This may be due to students of psychosis seek treatment in their home town and less prevalence of substance use disorder can be explained from the prohibition by the university and religion to which majority of the students belong. No formal psychiatric diagnosis was made in 21(6.4%) students whose main complaints were poor memory, forgetfulness, lack of concentration, sadness due to poor performance in academics and misconception regarding nocturnal emission (in males).

Limitations of this study:
Ours is an outpatient study, hence, cannot be generalised. Also, we did not study the severity of each illness.

CONCLUSION:
In university students, depression, tension headache, anxiety disorder not otherwise specified (NOS), OCD, migraine, conversion disorder and primary insomnia were the common diagnoses. Overall, this study gives us an insight into the mental health of university students and further, research can be done by taking the university as a cohort and drawing sample from it.

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References:


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