Prevalence of Depression and Use of Antidepressant in Basic Medical Sciences Students of Nepalgunj Medical College, Chisapani, Nepal

Dhami DB, Singh A, Shah GJ

ABSTRACT

Introduction: According to WHO, depression would be the second-most prevalent condition worldwide by 2020. The prevalence of depression is increasing in medical colleges because of stressful, competitive environment, long hours of training and studying. It is important for medical educators or teacher to know the magnitude of depression in students and factors causing it. The present study was carried to assess the prevalence of depression, use of antidepressant and to find out their stressors among preclinical students of Nepalgunj Medical College, Chisapani, Nepal.

Aims and objective: To assess the prevalence of depression, use of antidepressant and to find out their most common stressor among preclinical students.

Materials and methods: The descriptive cross sectional study was carried in preclinical students of Nepalgunj Medical College, Chisapani, Nepal. The data was collected with questionnaires which comprised of personal data (age, sex, year of study, religion and home country) and Zung Depression Inventory scale was used to rate the depression.

Results: Among 218 students, the prevalence of depression was 24.3%. Male students are more depressed (16.5%) than female (7.8%). First year student are more depressed (26.5%) than second year (22.4%). The depression score of the preclinical medical student was 44.67± 5.68 (mean ±SD). Majority of the students (>50%) found on academic stress and 3.6% of the total students were on antidepressants.

Conclusion: As the prevalence of depression is high in medical students there is need for the counselling services to the students in the medical college to control this morbidity.

Key words: Zung Depression Inventory, Depression, stress inducing factors, Medical students

INTRODUCTION

Depression is highly common affective disorder. According to WHO, it would be the second-most prevalent condition worldwide by 2020. The prevalence of depression among medical students in public universities has been estimated to be 10.4% in Greece, 15.2% in USA, 21.7% in Malaysia, 24% in UK, 29.1% in India and 43.8% in Pakistan, whereas The prevalence of depression among private medical students has been estimated to be 19% in USA, 49.1% in India, and 60% in Pakistan. In Europe, around 30% of medical students suffer from depression or anxiety. Similarly reported by Brazilian studies, 20 to 50% of medical students were found to present with mood disorders. Medical schools are known to be stressful environments for students and hence medical students have been believed to experience greater incidences of depression and it affects almost one-third of medical students globally but treatment rates are relatively low. In order to maintain a good academic result in a highly competitive environment students put them under a lot of stress which seriously affecting their academic performance and quality of life. Medical training is notoriously stressful and competitive, requiring long hours of studying, training and staying awake starting in medical school and has two to five times more likely to have depression than the general population. There is a need for the counselling services to be made available to the students in the medical college to control this morbidity. It is important for medical educators or teacher to know the magnitude of depression in students and factors causing it, which not only affect their health and academic achievement but also has serious consequences like suicide. So, there is need for the counselling services to be made available to the students in the medical college to control this morbidity. The present study was carried to assess the
prevalence of depression, use of antidepressant and to find out their stressors among preclinical students of Nepalgunj Medical College, Chisapani, Nepal.

AIM AND OBJECTIVES

· To assess the prevalence of depression among preclinical students
· To find about most common stress inducing factor and to know the status of antidepressant use.

METHODS

The Study was a descriptive cross sectional study carried in 218 preclinical students of first year (batch-2017) and second year (batch-2016) at Nepalgunj Medical College, Chisapani, Nepal, in April 2018. Students were briefed about the purpose of the study and proforma were distributed among all after informed consent. The study was approved by the Institutional Ethical Committee. The questionnaires which comprised of personal data (age, sex, year of study, religion and home country), Zung Depression Inventory and stress inducing factors. The instrument used for collecting the data was a proforma containing Zung self-rating scale for depression with some additionally required information regarding the use of antidepressants.

The Zung self-rating depression scale was developed by Zung WWK in 1965 for the assessment of perceived feelings of individuals regarding their emotional status. It consists of 20 items with scores ranging from 1-4 (per item). The total score is determined by adding all the scores, than 50 are considered normal while those ranging from 50-59, 60-69 and more than 70 are indicative of mild, moderate and severe depression respectively.

Stress inducing factors: After in-depth literature review and peer consultation, five most important stress inducing factors were selected. The students were asked to strike the factors they thought to be important from the following:

a. Academic stress
b. Home sickness
c. Relationships
d. Hectic lifestyle
e. Future concerns

Data were entered into Microsoft excel and analyzed using SPSS statistical software.

RESULT

Total 218 students were included in the study, 102 from first year (batch-2017) and 116 from second year (batch-2016). Out of total students 69.7% were male and 30.2% were female students. Majority of the students were Nepalese 61.4% followed by Indian 38.5%. High percentage (81.8%) of student’s parent were non-medical by occupation and only 18.8% parent were medical related. The mean age with standard deviation of the total students was 20.22±1.18 and that of first year and second year students was 20.01±1.19 and 20.31±1.14 respectively (Table-1)

<table>
<thead>
<tr>
<th>Parameters</th>
<th>First year</th>
<th>Second year</th>
<th>First+ Second year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>71(69.6%)</td>
<td>81(69.8%)</td>
<td>152(69.8%)</td>
</tr>
<tr>
<td>Female</td>
<td>31(30.4%)</td>
<td>35(30.2%)</td>
<td>66(30.2%)</td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nepalese</td>
<td>62(60.8%)</td>
<td>72(62.1%)</td>
<td>134(61.5%)</td>
</tr>
<tr>
<td>Indian</td>
<td>40(39.2%)</td>
<td>44(37.9%)</td>
<td>84(38.5%)</td>
</tr>
<tr>
<td>Parent occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td>26(25.5%)</td>
<td>15(12.9%)</td>
<td>41(18.8%)</td>
</tr>
<tr>
<td>Non-medical</td>
<td>76(74.5%)</td>
<td>101(87.1%)</td>
<td>177(81.2%)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>18</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Maximum</td>
<td>24</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Mean ±SD</td>
<td>20.01±1.19</td>
<td>20.31±1.14</td>
<td>20.22±1.18</td>
</tr>
</tbody>
</table>

The depression score of the preclinical medical student was 44.67± 5.68 (mean ±SD). Highest depression score for first year was 58 and for second year was 65. (Table-2)

<table>
<thead>
<tr>
<th>Year</th>
<th>Depression score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>First</td>
<td>30</td>
</tr>
<tr>
<td>Second</td>
<td>29</td>
</tr>
<tr>
<td>First + Second</td>
<td>29</td>
</tr>
</tbody>
</table>

Male students are highly depressed (16.5%) then female (7.8%). First year student are more depressed (26.5%) than second year (22.4%). The Prevalence of depression was 24.3%.
In the first year 27 students have mild depression, among them 17 male and 10 female. In the second year 25 students have mild depression among them 18 male and 7 female students. Only one student have moderate depression in second year. Nepalese student found to be depressed then Indian in both year.

Majority of the students found on academic stress followed by hectic life style and future concern but more than 50% of second year student were on academic stress then first year students while significant number of students hectic life style in first year (Figure-1)

Only 3.6% of the total student were taking antidepressants.

DISCUSSION

The prevalence of depression in basic medical science students was 24.3% which is very similar with the study of Basnet B et al\textsuperscript{20} (24.78%). This finding is also comparable with the results of similar study done in Malaysia (21.7\%)\textsuperscript{2}, in UK(24\%)\textsuperscript{5} and in India (29.1\%)\textsuperscript{6} but more in comparison to findings of studies from Manipal, Nepal (20\%)\textsuperscript{21}, in Greece (10.4\%)\textsuperscript{2} and in USA (15.2\%)\textsuperscript{8} and less in comparison in Pakistan (43.8\%)\textsuperscript{10}.

In our study, the prevalence of depression was found to be more in the first year 26.5% than the second year 22.4%). This finding could be due to students' just entering medical school after high school. Similar studies reported that prevalence of depression to be found more in preclinical medical students.
The present study male students are highly depressed (16.5%) then female (7.8%) whereas in study by Basnet B et al. 2010 53.7% male and 46.3% female were depressed. This may be due to more male students got admission in medical field than female in Nepal. First year student are more depressed (26.5%) then second year (22.4%) which is very less with the Study of Basnet B et al. 2010 is 57% and 50% respectively. Among those with depression, a majority had mild and moderate degree of depression with mean score (44.67±5.68). The prevalence of severe and profound depression was 7.5% and 6.7% respectively.

Majority of the students found on academic stress followed by hectic life style and future concern, Even studies from Pakistan and India reported academic stress as most troublesome stressors. This may reflect cultural similarities, working environments and similar background.

CONCLUSION
Depression long with academic stress is high in medical students. There is need for the counselling services to the students in the medical college to control this morbidity.

REFERENCES
19) Zung WWK. Self-rating depression scale. Arch Gen Psychiatry 1965;12:63-70


