The Study of Prevalence of Depression and Anxiety in Undergraduate Medical Students – A Cross-Sectional Study

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ABSTRACT

Depression and anxiety with other phobic and behavioral disorders manifest as a continuum of spectrum of psychiatric disorders, with social phobia being an important subset and particular type of anxiety disorder almost predominantly having its onset in adolescence. Depression and anxiety also have certain common biological underpinnings. Moreover, these comorbid disorders overlap with each other in many aspects. A cross-sectional study was done among medical undergraduate students in Adichunchanagiri Institute of Medical Sciences, BG Nagara, Nagamangala Taluk, from April 2020 to June 2020. The study comprised 100 students. A pretested semi-structured questionnaire was used to collect data regarding sociodemographic profile, depression, anxiety symptoms, social phobia, and their determinants. In the present study, out of 100 participants, 63 students had depression, mild mood disturbance was the most common type (31 students) followed by borderline depression in 17 students and moderate depression in 13 students. Two students complained of severe depression. Out of 33 students who had anxiety, mild anxiety was the most common type (18 students) followed by moderate anxiety in 11 students and severe anxiety was complained by 4 students. Our study highlights the fact that there is a prevalence of mild-to-moderate depression among students in our considered area and these findings necessitate the incorporation of various health-care interventions at the schooling level such as student counseling services offering mental health assistance to improve their overall well-being and personality from a young age.

KEY WORDS: Prevalence, depression, anxiety.

Introduction

Depression and anxiety with other phobic and behavioral disorders manifest as a continuum of spectrum of psychiatric disorders, with social phobia being an important subset and particular type of anxiety disorder almost predominantly having its onset in adolescence. Depression and anxiety also have certain common biological underpinnings. Moreover, these comorbid disorders overlap with each other in many aspects. Depressive features can be present in anxiety disorder without amounting to disorder level and the vice versa also holds true. A large percentage of these disorders have their initial occurrence during the early or late adolescence stage (second decade of life, i.e., in adolescence). Early recognition, identification, and subsequent timely effective intervention go a long way in preventing the long-term sequel and consequences.[1]

An adolescent's overall physical and mental development mainly depends on cognitive abilities development and learning processes which, in turn, is reflected on a sound mental development. Hence, any form of mental disorders or illness will have a detrimental effect on the same leading to high overall costs at both individual and societal aspects.[2] Depression *per se* is rated as vastly unrecognized and silent burden. Depression and other related mental health disorders are regarded as a common mental health problem involving

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adolescents globally, and statistically reflecting with annual estimated prevalence of 4–5% in mid to late phases of adolescence. Adolescent depression poses a major risk factor for suicide and becoming a significant and major cause of death in that age group, with majority of adolescents committing suicide having a depressive disorder before or at time of death following suicide. World Mental Health Day – 2012 had a theme that was "Depression: A Global Crisis." The WHO observations and statistics reveal that depression is a significant disorder affecting 350 million people worldwide and involving people of all ages, genders, and communities, contributing significantly to the global burden of disease and disability-adjusted life years.[1] Worldwide, depression off late is becoming the leading cause of illness and disability in adolescents, and suicide being the third major cause of deaths in adolescents. A survey on mental health worldwide revealed that among 17 countries surveyed, 1 in 20 people taken on an average had suffered an episode of depression previously or in the preceding year.[3]

Adolescents also are afflicted with another common psychological disorder in the form of anxiety disorder or generalized anxiety disorder. Typically brain signals a response when an individual is confronted with perceivable danger or stimuli so that he will try or attempt to avoid. Hence, the brain response described represents a basic type of emotion which is already implanted as cognitive response in early years of developmental stages of life, with expressions and responses ranging from mild to severe forms. Anxiety disorder cannot be said as a pathological entity, as it is a reflective adaptive process encountering many situations, primarily focusing on mitigating or avoiding danger. Another important observation frequently encountered is that anxiety manifests as a maladaptive process when it complicates functioning process. To quote an instance as an example, whenever anxiety is frequent with severe attacks and persistent course, it is observed that anxiety is routinely coupled with avoidance behavior.[4]

Methodology

A cross-sectional study was done among medical undergraduate students in Adichunchanagiri Institute of Medical Sciences, BG Nagara, Nagamangala Taluk, from April 2020 to June 2020. The study comprised 100 students. A pretested semi-structured questionnaire was used to collect data regarding sociodemographic profile, depression, anxiety symptoms, social phobia, and their determinants. Data analysis was done using SPSS v. 14.

Study type
This was a cross-sectional study.

Study period
The study period was 3 months.

Study sample
One hundred students.

Inclusion criteria
Undergraduate medical students of Adichunchanagiri Institute of Medical Sciences were included in the study.

Exclusion criteria
Undergraduate medical students who are suffering physical illness were excluded from the study.

Sampling method
Simple random sampling method.

Ethical clearance
Obtained from the Institutional Ethical Committee.

Results
Above table shows that among the 63 students who had depression, mild mood disturbance was the most common type (31 students) followed by borderline depression in 17 students and moderate depression in 13 students. Two students complained of severe depression (Table 1).

The table shows that out of 33 students who had anxiety, mild anxiety was the most common type (18 students) followed by moderate anxiety in 11 students and severe anxiety was complained by 4 students (Table 2).

Discussion
In the present study, out of 100 participants, 63 students had depression, mild mood disturbance was the most common type (31 students) followed by borderline depression in 17 students and moderate depression in 13 students. Two students complained

Table 1: Distribution of the study subjects based on the severity of depression

Severity of depression	BDI scores	Number
Mild mood disturbance	11–16	31
Borderline	17–20	17
Moderate	21–30	13
Severe	31–40	2
Extreme	>41	0
Total		63

Table 2: Distribution of the study subjects based on the severity of anxiety

Severity of anxiety	HAM-A scores	Frequency
Mild	<17	18
Moderate	18–24	11
Severe	25–30	04
Total		33

of severe depression. Out of 33 students who had anxiety, mild anxiety was the most common type (18 students) followed by moderate anxiety in 11 students and severe anxiety was complained by 4 students.

Depression has become a global major public health concern affecting the individual's ability to perform routine daily activities. One of the important findings is that depression setting in an early onset life is more often associated with a persistent and recurrent course often continuing into adulthood, indicating that youth onset depression is a marker for severe illness in adult life and has been reinforced by a prospective study recently published. Depression in early age or in adolescence often occurs coexistent with other mental disorders such as anxiety-related behaviors or societal anxiety disorders. As a result, depression screening assumes an important health-care monitoring aspect among the school-going students or early adolescents.

A study by Naushad *et al.* in Mangalore[5] revealed that late adolescent children suffered frequently from moderate depression (41.2%). However, they reported a higher prevalence compared to our study with respect to severe and extreme depression which was 11.4% and 5.2%, respectively. Taking into consideration, the increased incidences of mild-to-moderate depression among students in our considered study area, initiating of student counseling or grievance redressal service offering variety of mental health assistance are the need of the day and future. Students should be sensitized about various aspects of depression to enhance identification and diagnosis. Clinical assessment concentrate on identification of these variables and non-pharmacological interventions may be adopted which are of relevance in addressing some of the associated factors.

An Indian study at Trivandrum (India)-based study[2] done among 13–19 years school/college students revealed the prevalence of moderate depression here as 9.6% which was comparatively lower than our findings. The same study also reported the prevalence of mild depression to be 6.8% and severe depression as 2% which was again lower than our observations.

A study on anxiety among school students by Bakhla *et al.*[1] revealed that school-going girls had higher incidences of anxiety (21.2%) as compared to the school-going boys (1.25%) in a sample size of 146 students. This study finding was found to be consistent with our study results. A number of theories and explanations have been given for the gender disparity observations in anxiety symptoms among children, including biological and environmental factors and gender roles, gender role stress, societal and interpersonal relationships, and gender mainstreaming in exposure to social adversity a socialization process.

Conclusion

Our study highlights the fact that there is a prevalence of mild-to-moderate depression among students in our considered area and these findings necessitate the incorporation of various health-care interventions at the schooling level such as student counseling services offering mental health assistance to improve their overall well-being and personality from a young age. Students should be adequately sensitized and educated about various aspects of depressive disorders so that recognition and diagnosis can be improved. Clinical assessment should focus on identification of these variables and non-pharmacological interventions may be of relevance in addressing some of the associated factors.

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