

Prevalence of Psychiatric Manifestations among Medical Students

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ABSTRACT

Introduction: In the modern era because of the poor coping mechanisms of stress, every individual has ample chance of developing one or other psychiatric manifestations in their lifetime. Prevalence rates of psychiatric morbidity and suicides were increasing, particularly among medical students. Aims: This study was aimed to improve the knowledge of psychiatric manifestations and to estimate the prevalence of psychiatric manifestations in medical students.

Material and Methods: A cross-section study was conducted in medical students (n = 100) to assess their psychiatric status. Medical students aged between 18 and 24 years were selected randomly and explained about the study. Mini International Neuropsychiatric Interview (M.I.N.I.) was used to assess psychiatric status of the medical students.

Results: In our study, 34% of the subjects were having major psychiatric manifestations observed were social phobia (13%) and agoraphobia (10%). Both generalized anxiety disorders and hypomanic episodes were observed in 7% of the subjects. Panic disorder with social phobia and social phobia with agoraphobia were observed in 2% of the subjects.

Conclusion: Implicating knowledge about the common psychiatric manifestations among medical students will lead to the early presentation of the suffering people to clinician, to get proper treatment of their illness and improve the quality-of-life.

Keywords: Agoraphobia, Mini International Neuropsychiatric Interview, medical students, psychiatric manifestations

INTRODUCTION

In the modern era because of the poor coping mechanisms of stress, every individual has ample chance of developing one or other psychiatric manifestations in their lifetime.¹ Some of them are self-limiting and not causing much disturbance in life. Other disorders can cause significant impairment in social, occupational, and functional domains. Every year rates of psychiatric illness and suicides are increasing, particularly before the examinations among medical students.²⁻⁴ Comorbidity is common in many psychiatric disorders, like patients with chronic obsessive compulsive disorder will develop depression in the course of their illness. There is a common occurrence of mental disorders around the globe, with over a third of people in most countries reporting sufficient criteria to be diagnosed at some point in their life.⁵ As stated in the report in 2001 by World Health Organization that about 450 million people worldwide suffer from mental disorder of some or other form and that one in four people meet criteria at some point in their life. As the prevalence of psychiatric morbidity is increasing day by day, this study was aimed to improve the knowledge of psychiatric manifestations and to estimate the prevalence of psychiatric manifestations in medical students.

MATERIAL AND METHODS

A cross-section study was conducted in medical students (n =

100) to assess their psychiatric status. Students aged between 18 and 24 years were selected randomly and explained about the study. Meticulous care was taken to prevent guarded responses from students because of stigma toward psychiatric illness. Informed consent was taken from all the students. The study was conducted during the period from march-June 2016. Mini International Neuropsychiatric Interview (M.I.N.I. English version 5.0.0, Copyright 1992-2006, Sheehan DV and Lecurbier Y) was used to assess psychiatric status of the medical students. Mini international neuropsychiatric interview The M.I.N.I. was designed as a brief structured interview for the major Axis I psychiatric disorders in DSM-IV and ICD-10. The M.I.N.I. has acceptably high validation and reliability scores and can be administered in a much shorter period of time. In order to keep the interview as brief as possible, M.I.N.I. was designed with 16 modules structured with very precise questions about psychological problems, which require "Yes or No" answer. Each student was encouraged to ask for clarification on any question that is not absolutely clear. The students were asked for examples when necessary, to ensure accurate coding. Several studies were conducted by using M.I.N.I. around the world, to validate its reliability.⁶ M.I.N.I. was used routinely in research settings, but not used frequently in clinical settings.⁷

STATISTICAL ANALYSIS

Microsoft office 2007 was used for data analysis and formatting of tables. Descriptive statistics like mean, SD and percentages were used for interpretation of the data. Chi square test was used where ever comparison was made.

RESULTS

In this study, mean age of the subjects was 21.04 years (table-1). Mean duration of the interview was 15 min 40 s. In our study, 66% of the subjects were completely free of psychiatric manifestations and 34% of the subjects were having psychiatric manifestations, ranging from one to four (table-2). Major psychiatric manifestations observed were social phobia (13%) and agoraphobia (10%). social phobia was observed in a high proportion with males (29.41%), when compared to females (0.04%). Both generalized anxiety disorder and hypomanic episode were observed in 7% of the subjects (table-3). Panic disorder with social phobia and social phobia with agoraphobia were observed in 2% of the subjects. Psychiatric manifestations

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Age in years	18	19	20	21	22	23	24	Total
Male	0	1	13	6	5	5	4	34
Female	1	13	14	17	9	10	2	66
Total	1	14	27	23	14	15	6	100

Table-1: Age and sex distribution of the subjects

Number of psychiatric manifestations in a subject	Male	Female	Total
Nil	18	48	66
One	08	13	21
Two	03	03	06
Three	02	02	04
Four	03	00	03

Table-2: Distribution of psychiatric manifestations

Psychiatric manifestation	Male	Female	Total
Social phobia	10	3	13
Agoraphobia	2	8	10
Generalized anxiety disorder	1	6	7
Hypomanic episode	5	2	7
Obsessive compulsive disorder	5	0	5
Major depressive episode	2	3	5
Dysthymia	3	0	3
Panic disorder	3	0	3
Suicidality	1	1	2
Psychotic disorders	0	1	1
Anorexia nervosa	0	1	1

Table-3: Sex-wise distribution of psychiatric manifestations

Sex	Total	Psychiatric manifestations		Yes %
		Yes	No	
Male	34	16	18	47.05
Female	66	18	48	27.27
Total	100	34	66	

$\chi^2 = 8.58$; $P < 0.005$

Table-4: Male to female comparison in overall psychiatric manifestations

were observed in a high proportion in males (47.05%), when compared to females (27.27%) (table-4).

DISCUSSION

In our study, the prevalence of psychiatric manifestations was 34%. Studies carried out by Kessler et al.,⁸ Baxter et al.,⁹ Kessler et al.,¹⁰ and by James et al.,¹¹ have documented nearly similar prevalence.

Most of the studies had shown prevalence of anxiety spectrum disorders taking the leading positions, in particular predominance of agoraphobia in females and social phobia in males.¹² In our study, social phobia was observed in 13% of the subjects and agoraphobia in 10%. Social phobia was observed in a high proportion in males (29.41%), when compared to females (0.04%). Prevalence of generalized anxiety disorder was 7% in our study, which was low when compared to the prevalence documented in the study done by Somers et al.¹³

In our study, major depressive episode was observed in 5% of the subjects, which was lower in comparison with the study done by Kessler et al.,¹⁴ but fits into the range 5-17% as documented by Sadock et al.,¹⁵ and similar to the prevalence documented in

the study done by Ayuso-Mateos et al.¹⁶

Prevalence of anorexia nervosa was 1% in our study, which was in conformity with the study done by Bulik et al.¹⁷ Prevalence of hypomanic episode in our study, was 7%. Our finding was closely similar to the prevalence documented in the study done by Angst.¹⁸

In our study, dysthymia was observed in 3% of the subjects, similar proportion was documented in the study by Weissman et al.¹⁹ Obsessive compulsive disorder was observed in 5% of the subjects, in our study. This finding was higher than the prevalence reported in studies by Karno et al.,²⁰ Bebbington,²¹ Rajashekharaiiah et al.²²

Limitations of the study were (i) Small sample size, (ii) study was conducted in medical students only; hence, the findings may vary among the general population.

CONCLUSION

Overall prevalence rates of various psychiatric manifestations in our study were in accordance to other prevalence studies. Through this study, we tried to bring the knowledge of various psychiatric problems among medical students and hence that they can present early to treatment and improve their quality-of-life. Similar studies in various groups of the population will improve knowledge and awareness of common psychiatric manifestations.

REFERENCES

1. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2005;62:593-602.
2. Dickstein LJ, Stephenson JJ, Hinz LD. Psychiatric impairment in medical students. *Acad Med*. 1990;65:588-93.
3. Lloyd C, Gartrell NK. Psychiatric symptoms in medical students. *Compr Psychiatry*. 1984;25:552-65.
4. Lloyd C, Musser LA. Psychiatric symptoms in dental students. *J Nerv Ment Dis*. 1989;177:61-9.
5. Cross-national comparisons of the prevalences and correlates of mental disorders. WHO International Consortium in Psychiatric Epidemiology. *Bull World Health Organ*. 2000;78:413-26.
6. Muramatsu K, Miyaoka H, Kamijima K, Muramatsu Y, Yoshida M, Otsubo T, et al. The patient health questionnaire, Japanese version: Validity according to the mini-international neuropsychiatric interview-plus. *Psychol Rep*. 2007;101:952-60.
7. Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, et al. The Mini-International Neuropsychiatric Interview (M.I.N.I.): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *J Clin Psychiatry*. 1998;59 Suppl 20:22-33.
8. Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, et al. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. Results from the National Comorbidity Survey. *Arch Gen Psychiatry*. 1994;51:8-19.
9. Baxter J, Kingi TK, Tapsell R, Durie M, McGee MA, New Zealand Mental Health Survey Research Team. Prevalence of mental disorders among Māori in Te Rau Hinengaro: The New Zealand Mental Health Survey. *Aust N Z J Psychiatry*.

- 2006;40:914-23.
10. Kessler RC, Matthias A, Bedirhan UT. Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. *JAMA*. 2004;291:2581.
 11. James EB, Jane AB, Thomas EO, Paul DG. The prevalence of psychiatric disorders in a primary care practice. *Arch Gen Psychiatry*. 1988;45:1100-6.
 12. Sadock BJ, Sadock VA. Kaplan & Sadock's Synopsis of Psychiatry. 10th ed. New Delhi: Lippincott Williams & Wilkins; 2009. p. 597-604.
 13. Somers JM, Goldner EM, Waraich P, Hsu L. Prevalence and incidence studies of anxiety disorders: A systematic review of the literature. *Can J Psychiatry*. 2006;51:100-13.
 14. Kessler RC, Berglund P, Demler O, Jin R, Korej D, Merikangas KR, et al. The epidemiology of major depressive disorder: Results from the National Comorbidity Survey Replication (NCS-R). *JAMA*. 2003;289:3095-105.
 15. Sadock BJ, Sadock VA, Pedro R. Comprehensive Textbook of Psychiatry. 9th ed. New Delhi: Lippincott Williams & Wilkins; 2009. p. 1645-53.
 16. Ayuso-Mateos JL, Vázquez-Barquero JL, Dowrick C, Lehtinen V, Dalgard OS, Casey P, et al. Depressive disorders in Europe: Prevalence figures from the ODIN study. *Br J Psychiatry*. 2001;179:308-16.
 17. Bulik CM, Sullivan PF, Tozzi F, Furberg H, Lichtenstein P, Pedersen NL. Prevalence, heritability, and prospective risk factors for anorexia nervosa. *Arch Gen Psychiatry*. 2006;63:305-12.
 18. Angst J. The emerging epidemiology of hypomania and bipolar II disorder. *J Affect Disord*. 1998;50:143-51.
 19. Weissman MM, Leaf PJ, Bruce ML, Florio L. The epidemiology of dysthymia in five communities: Rates, risks, comorbidity, and treatment. *Am J Psychiatry*. 1988;145:815-9.
 20. Karno M, Golding JM, Sorenson SB, Burnam MA. The epidemiology of obsessive-compulsive disorder in five US communities. *Arch Gen Psychiatry*. 1988;45:1094-9.
 21. Bebbington PE. Epidemiology of obsessive-compulsive disorder. *Br J Psychiatry Suppl* 1998;35:2-6.
 22. Manjunath Rajashekaraiah, Pravin Verma. Phenomenology of obsessions and compulsions in Indian patients. *International Journal of Contemporary Medical Research*. 2016;3:2139-2143.

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