



ASSESSMENT OF PREVALENCE AND LEVEL OF DEPRESSION AMONG MEDICAL STUDENT IN A PRIVATE MEDICAL COLLEGE

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ABSTRACT Depression is a very common mental illness which is described by persistent sadness and a loss of interest in the activities that people enjoy normally, accompanied by an inability to carry out their daily activities, for 14 days or more. Depression is a common mental disorder. A cross sectional study was done in private medical college of Wardha using a predesigned questionnaire for assessment of prevalence and level of depression among the medical students. A total of 100 final year medical undergraduates were randomly selected. This study was done to diagnose the depression among medical undergraduates and to assess the severity of depression among medical undergraduates.

KEYWORDS : Depression, Cross Sectional Study, Mental Disorder

INTRODUCTION

“Depression is not a sign of weakness - it's a sign that you were trying to be strong too long.” -SIGMUND FREUD

Depression is a very common mental illness which is described by persistent sadness and a loss of interest in the activities that people enjoy normally, accompanied by an inability to carry out their daily activities, for 14 days or more⁽¹⁾ By the year 2020 depression is projected to reach second place of the ranking of DALYs calculated for all ages and sexes. Today depression is the second cause of DALYs in the age category 15-44 years for both sexes combined⁽²⁾ The well-known symptoms of depression are emotional, including sadness, irritability, guilt and hopelessness. Other frequent symptoms, like trouble focusing or concentrating on tasks, are also thought of as being related to one's state of mind. Although depression is a mental illness, it can also cause physical symptoms. Pain, stomach upset, fatigue, and restlessness are just a few potential physical effects of depression. People can have these symptoms for a variety of reasons, but they may not realize depression can be among the potential causes. Certain treatments used for depression, such as medication, can have side effects like nausea and vomiting, weight loss/gain, and sexual dysfunction. Strong links between depression and other non-communicable diseases. Depression increases the risk of diseases such as diabetes and heart disease; whose opposite is also true, which means people with these other conditions have a risk of depression.

Depression is a silent illness and not a consequence of ageing. Depression can cause physical, cognitive, and social problems, and delay the recovery from other illnesses. It increases the risk of suicides, cognitive impairment, and dependency.

Depression is a common illness, with more than 264 million people affected globally. Depression challenges in everyday life. It can cause the affected person to suffer greatly and function poorly at work, at school and in the colleges. At its worst, depression can lead to suicide. Suicide is the second leading cause of death in 15-29-year-old persons.

A World Health Assembly resolution passed in year 2013 has called for a comprehensive, coordinated response to mental disorders at the national level.

The new estimates were released in the lead-up to World Health Day on 7 April, the high point in WHO's year-long campaign “DEPRESSION: LET'S TALK” in the year 2017. The goal of the campaign was that more people with depression, in the world should, both seek and get help.

As said by WHO Director-General, Dr Margaret Chan: “These figures are a wake-up call for all the countries to re-think their approaches to mental health and to treat it with the seriousness that it deserves.”

“The continuing stigma associated with mental illness was the reason why we decided to name our campaign Depression: let's talk,” said Dr Shekhar Saxena, Director of the Department of Mental Health and Substance Abuse at WHO. “For someone living with depression, talking to a person they trust is the first step towards treatment and recovery.”[1]

Depression is a common mental disorder. More than 264 million people of all ages suffer from depression worldwide. The prevalence of depression among medical students in public universities has been estimated to be 10.4% in Greece^[5], 15.2% in USA^[6], 21.7% in Malaysia^[7], 24% in UK^[8], 29.1% in India^[9], and 43.8% in Pakistan^[10]. The percentage of depression among private medical students, however, has been estimated to be 19% in USA^[11], 49.1% in India^[12] and 60% in Pakistan^[13].

Mental health of university students is an area of increasing worldwide concern as this population has been shown to be prone to depression, anxiety, and stress due to factors that include academic pressures, hurdles to their goal achievement, environmental changes and life challenges such as transition from school to university and the change in role from student to knowledgeable doctors. Medical students suffers higher levels of depression and anxiety compared to the general population and to their same age group. Difference between levels of depression and anxiety have also been noted between medical students attending public and private medical schools, hence this study was conducted to assess the prevalence and factors leading to depression in undergraduate medical student.

AIMS AND OBJECTIVES

AIM-

Assessment of prevalence and level of depression among medical student in a private medical college using PHQ-9 & Goldberg Scale.

OBJECTIVE-

To diagnose the depression among medical undergraduates.

To assess the severity of depression among medical undergraduates.

MATERIAL AND METHODS

STUDY SETTING:

Jawaharlal Nehru Medical College, Sawangi (Meghe), Wardha.

STUDY PARTICIPANTS:

Final year undergraduate students of Jawaharlal Nehru Medical College, Sawangi (Meghe), Wardha.

SAMPLE SIZE SELECTION:

100 final year undergraduate MBBS students.

STUDY DESIGN: Cross sectional study design

DURATION OF STUDY:

3 months i.e. November 2019 to January 2020

DATA COLLECTION (METHODOLOGY):

Final year MBBS Students between 21-23 years of age were included in the study and were briefed about study and administered the questionnaire and after acquiring verbal consent.

Verbal consent was obtained and those who were not willing to participate were excluded.

A pre structured & pretested questionnaire was used.

INCLUSION CRITERIA-

Male and Female undergraduate students between the age of 21-23 years who have given verbal consent.

EXCLUSION CRITERIA-

Students who were not willing to participate in the study.

STUDY TOOL-

We have used two different scales

1 Patient health questionnaire-9

2 Goldberg scale

PHQ 9 scale is easy to use patient questionnaire, it's a self-administered version of the PRIME-MD diagnostic instrument for common mental disorders. PHQ-9 is depression module, which scores nine DSM-IV criteria as "0" (not at all) to "3" (nearly every day).

The Goldberg anxiety and depression scale (GADS) is an 18-item self-report symptom inventory that was developed by Ivan K. Goldberg and colleagues from 36 items in Psychiatric Assessment schedule.

Interpretation of Patient Health Questionnaire-9 (PHQ 9) Scale-

PHQ-9 Management Summary		
Score	Depression severity	Comments
0-4	Minimal or none	Monitor; may not require treatment
5-9	Mild	Use clinical judgment (symptom duration, functional impairment) to determine necessity of treatment
10-14	Moderate	
15-19	Moderately severe	Warrants active treatment with psychotherapy, medications, or combination
20-27	Severe	

Interpretation of Goldberg Scale

Screening test scoring ranges:

- 0-9 No Depression Likely
- 10-17, Possibly Mildly Depressed
- 18-21, Borderline Depression
- 22-35, Mild-Moderate Depression
- 36-53, Moderate-Severe Depression
- 54 and up, Severely Depressed

OBSERVATIONS AND RESULT

PROFILE OF STUDY PARTICIPANTS

	n	Percentage(%)
Males	37	37%
Females	63	63%

Table 1: Assessment of students based on Patient health questionnaire-9 (PHQ-9) scale

PHQ-9 Scale Score	Score Range	No of participants (n)	Percentage (%)
Minimal Depression	0-4	77	77%
Mild Depression	5-9	5	5%
Moderate Depression	10-14	14	14%
Moderately Severe Depression	15-19	4	4%
Severe Depression	20-27	0	0%
Mean±SD	3.90±4.52(0-16)		

RESULT -

About 77% students were having minimal/ none depression while 14% were having moderate depression

Graph 1: Assessment of students based on Patient health questionnaire-9 (PHQ-9) scale

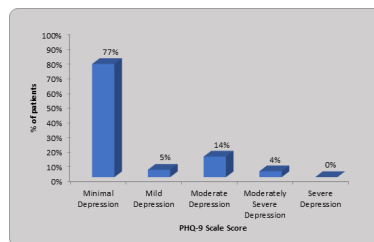


Table 2: Assessment of students based on Goldberg Depression Questionnaire scale

Goldberg depression questionnaire scale	Score Range	No of participants (n)	Percentage (%)
No Depression likely	0-9	77	77%
Possibly mildly depressed	10-17	0	0%
Borderline depression	18-21	0	0%
Mild moderate depression	22-35	9	9%
Moderate severe depression	36-53	14	14%
Severely depressed	≥54	0	0%
Mean±SD	10.50±14.56(0-42)		

RESULT -

About 77% students were having none depression and 14 % were having moderately severe depression.

Graph 2: Assessment of students based on Goldberg Depression Questionnaire scale

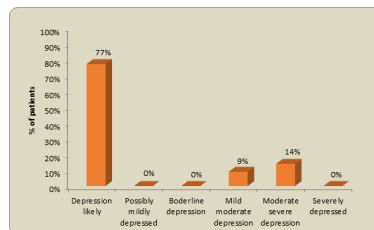


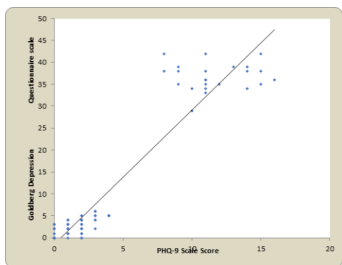
Table 3: Correlation between Patient health questionnaire-9 (PHQ-9) and Goldberg Depression Questionnaire scale Pearson's correlation coefficient

	Mean	Std. Deviation	N	Correlation 'r'	p-value
PHQ-9 Scale	3.90	4.52	100	0.949	0.0001,S
Goldberg Depression Scale	10.50	14.56	100		

*p value-<0.05 is significant

By using Pearson's correlation coefficient significant positive correlation was found between PHQ-9 scale score and Goldberg depression questionnaire scale score($r=$ Graph 3: Correlation between and Goldberg Depression Questionnaire scale($r=0.949,p=0.0001$).

Graph 3: Scatter diagram showing correlation between Patient health questionnaire-9 and Goldberg Depression Questionnaire scale



This graph is showing positive correlation

DISCUSSION

According to our study of depression conducted in Jawaharlal Nehru medical college Sawangi, among final year MBBS undergraduate students, about 77% students were having minimal/ none depression while 14% were having moderate depression Where as In UK 24% of medical students were found to be depressed.[8]

In Malaysia, the prevalence of depressive symptoms and its contributing factors in final year medical students which was found to be 21.7%. [7]

In the Republic of Macedonia in Greece where 65.5% of medical student were found to be depressed.[5]

In Pakistan, the prevalence of depression among medical students of a private university which was found to be 60%. [13]

In Israel about 29.4% of medical students were found to be depressed.[17]

In university of Beirut the prevalence of depressive disorder in medical students which was 69%. [16]

In medical college of New Delhi 29.1% of medical students were found to be depressed.

CONCLUSION

The study was conducted on randomly selected 100 final year medical under graduates Male female ratio: 0.586 About 77% of student were found to have minimal/none depression, 14 % were found to have moderately severe depression while none of the student had severe depression.

LIMITATIONS

The final objective of patient health questionnaire-9 scale i.e monitor ring of treatment response is not achieved.

Not able to assess repeater student due to unavailability or not able to contact on repeated visits

SUMMARY

We did a cross sectional study on 100 final year medical undergraduate students of Jawaharlal Nehru medical college Sawangi Wardha using PHQ-9 and Goldberg depression scale, we found that about 77% student were having minimal /none depression, 14 %were having moderately severe depression and none of the student severe depression.

This may be due to the favourable environment provided by college / university which include extra-curricular activity (energia, gfc, clubs , monthly counselling)

ANNEXURES-1

Name (with roll no.) -
Age/sex-

Batch- 20--

Address-

PHQ-9 (PATIENT HEALTH QUESTIONNAIRE – 9)

Questions	Not at all (0)	Several Days (+1)	More Than Half The Days (+2)	Nearly Every Day (+3)
Little interest or pleasure in doing things?				
Feeling down, depressed, or hopeless?				
Trouble falling or staying asleep, or sleeping too much?				
Feeling tired or having little energy?				
Poor appetite or overeating?				
Feeling bad about yourself — or that you are a failure or have let yourself or your family down?				
Trouble concentrating on things, such as reading the newspaper or watching television?				
Moving or speaking so slowly that other people could have noticed? Or so fidgety or restless that you have been moving a lot more than usual?				
Thoughts that you would be better off dead, or thoughts of hurting yourself in some way?				

ANNEXURES-2

Name (with roll no.) -

Age/sex-

Address-

Batch- 20--

GOLDBERG DEPRESSION SCALE

Questions	Not at all	Just a Little	Somewhat	Moderately	Quite a Lot	Very much
1. I do things slowly						
2. My future seems hopeless						
3. It is hard for me to concentrate on reading.						
4. The pleasure and joy has gone out of my life.						
5. I have difficulty making decisions.						
6. I have lost interest in aspects of life that used to be important to me.						
7. I feel sad, blue, and unhappy.						
8. I am agitated and keep moving around.						
9. I feel fatigued.						
10. It takes great effort for me to do simple things.						
11. I feel that I am a guilty person who deserves to be punished.						
12. I feel like a failure.						
13. I feel lifeless -- more dead than alive.						

14. My sleep has been disturbed -- too little, too much, or broken sleep.						
15. I spend time thinking about HOW I might kill myself.						
16. I feel trapped or caught.						
17. I feel depressed even when good things happen to me.						
18. Without trying to diet, I have lost, or gained, weight						

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