Assessment of Depression among Medical Students of Sheikh Zayed Hospital Rahim Yar Khan

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Abstract

INTRODUCTION: Depression is psychological disorder that affects the person's mood, physical functions and social interactions. Medical students remain under stress that often exerts a negative effect on the academic performances, physical health and psychological well-being of students. Pakistan is developing country and depression among students of this country has a bad effect ton its struggle to excellence. **OBJECTIVES**: i) To determine rate of depression among medicals students of SZMC. ii) To observe and association between depression and academic year. iii) To observe an association between and academic output. iv) To observe and association between depression and physical problems. **STUDY DESIGN:** Cross-sectional descriptive study. SETTING: The study was carried out in Sheikh Zayed Medical College Rahim Year Khan. **DURATION OF STUDY:** It was from April to 30 May 2015. **SUBJECTS AND METHODS:** 100 students, both males and females of Sheikh Zayed Medical Colege Rahim Yar Khan were included in the studies. A redesigned questionnaire and counting sampling technique was used to collect the data. **RESULTS:** Total depressed students were 44% . Three was high prevalence of depression in females 60% while in males was 46%. There were 41% students who were non depressed, 22% students were mildly depressed. 14% were moderately depressed and 22% severely depressed. Analysis of depression with age revealed that the prevalence of depression was equal among 18 to 21 years of age group and 26 to 28 years of age group which is highest 100%. **CONCLUSSION:** High level of depression was found in our students during the initial 2 years of their course. It poses additional challenges for student's support service delivery. The present study concludes the depression rate is 59% among medical students.

INTRODUCTION

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, feeling of guilt or low-self-worth, disturbed sleep or appetite, low energy, and poor concentration.

Depression causes a very high rate of diseases. Burdent is expected to show a rising trend during the coming 20 years. It is a significant public health problem with relatively common, high prevalence and its recent nature profoundly disrupts patient lives. General population surveys conducted in many parts of the world in which 15 to 20% children and adolescents suffered from it that are almost similar to that of adult populations.

Medical education is perceived as being stressful. It has been observed that medical students experience a high incidence of personal distress during their under graduate course. High level or stress may have a negative effect on mastery of the academic curriculum. Stress, health and emotional problems increase during the period of undergraduate medical education.

This can lead to mental distress and has a negative impact on cognitive functioning and learning. The intense pressures and relentless demand of medical education amy impair students behavior, diminish learning, destroy personal relationships. Studies suggest that throughout training. It is no just undergraduate study period which brings the stress but it may continue later in internship, postgraduate study period and letter in physicians, practical life and it may reach burnout level. Medical education is being perceived as being stressful. Stress during education leads to mental distress and have a negative impact on cognitive functioning and learning.

Medical college stress is likely to predict letter mental health problems but students seldom seek help for their problems. It is important of student of stress which not only affects his health but also his academic achievement at different time points of their study period. The objective of this study was to determine the prevalence of depression among medical students of SZMC and to identify its associated factors.

Characteristics of a mentally healthy person

Mental Health is not mere absence of mental illness. A healthy person has three main characteristics.

1- He feels comfortable about himself, that is, he feels reasonably secure and adequate. He neither underestimates nor overestimates his own ability. He accepts his shortcomings. He has self-respect.

2- The mentally healthy person feels right towards others. This means that he is able to be interested in other and to love them. He has friendships that are satisfying and lasting. He is able to feel a part of a group without being submerged by it. He is able to like and trust others. He takes responsibility for his neighbors and his fellow –men.

3- The mentally healthy person is able to meet the demands of life. He does something about the problems as they arise. He is able to think for himself and to take his own decisions. He sets reasonable goals for himself. He shoulders his daily responsibilities. He is not bowled over by his own emotions of fear, anager, love or guilt.

Warning signals of poor mental health

William C. Menninger, President of the Menninger Foundation, Tpeaka, Kansas, United states of America drew up the following questions to said in taking one's own mental health pulse:

1. Are you always worrying?
2. Are you unable to concentrate because of unrecognized reasons?
3. .Are you continually unhappy without justified cause?
4. Do you lose your temper easily and often?
5. Are you troubled by regular insomnia?
6. Do you have wide fluctuations in your moods from depression to elation, back to depression, which incapacitate you?
7. Do you continually dislike to be with people?
8. Are you upset if the routine of your life is disturbed?
9. Do your children consistently get on your life is disturbed?
10. Are you browned off? And constantly bitter?
11. Are you afraid without real cause?
12. Are you always right and the other person always wrong?
13. Do you have numerous aches and pains for which no doctor can find a physical cause.

The conditions chartered in these questions are the major warning signals of poor mental health in one degree or another. According to Dr. Menninger, Help is necessary if the answer to any of these questions is definitely "yes".

Types of mental illness

Mental and behavioral disorders are understood as clinically significant conditions characterized by alternation in thinking. Mood (emotions) or behavior associated with personal distress and /or impaired functioning. Any classification of mental disorder classifies syndromes and conditions. Individuals any suffer from one or more disorders during one or more periods of their life. One incidence of abnormal behavior or a short period of abnormal mood does not of itself, signify the presence of a mental or behavioral disorder.

The international classification of diseases (ICD-10) classifies the mental and behavioral disorder as (3)

- Organic, including symptomatic, mental disorders –e.g; dementia in Alzhemier's disease, delirium.
- Mental and behavioral disorders due to psychoactive substance use-e.g, harmful use of alcohol, opium dependence syndrome.
- Schizophrenia, schizotypal and delusional disorders e.g, paranoid schizophrenia, delusional disorders, acute and transient psychotic disorders.
- Mood (affective) disorders-e.g bipolar affective disorders, depressive episode.
- Neurotic, stress- related and somatoform disorders-e.g generalized anxiety disorders, obsessive-compulsive disorders.

- Behavioral syndromes associated with physiological disturbances and physical factors e.g eating disorders, non-organic sleep disorders.
- Disorders of adult personality and behavior-e.g paranoid personality disorder, trans-sexualize.
- Mental retardation.
- Disorders of psychological development-e.g, specific reading disorders, childhood autism.
- Behavioral and emotional disorders with onset usually occurring in childhood and adolescence e-g., hyperkinetic disorders, conduct disorder.
- Unspecified mental disorder.

LITERATURE REVIEW

Literature Review

In this past, the knowledge about stress, depression, and related factor had been reviewed to introduce and overview about mental status of students n medical college. Several previous studies in this filed had reviewed and were used as reference. A depression is an illness that involves the body, mood and thoughts . it affects on oneself and they way one thinks. Without treatment sympotoms can last for weeks, months or years. Appropriate treatment, however, can help most people who suffer from depression.

The student stress survey will be used to measure the sources of stress. This survey consist of 40 items divided into 4 categories of potential source of stress, 6 items representative interpersonal source of stress,16 representing interpersonal source of stress, 8 representing academic sources of stresses and 10 representing environmental sources of stress. According to WHO, Global burden of disease 2005.,33% of years lived with disability are due to neuropsychiatry disorder in which depression is one of the four neuropsychiatry disorders.

According to study done by their special article summarized the central theme of exploring the prevalence, causes and consequences as well as strategies to reduce student's medical distress by reaching medicine. Medical student distress, medication, educational environment contain risk element for student mental health and its specific consequences. The various manifestations of medical students that were recorded increasingly and differently for each stage of academic year includes stress, depression and burn –out potential causes of student distress.

A study conducted at Thai revealed that about 64% students had some degree of stress."

A research on depression on medical students in Egypt reveled symptoms of depression among medical students was 57.9%.12

In Nepal, psychological mobility sources of stress and coping strategies among under graduate medical students studying 2005, the overall prevalence of psychological mobility was 209%. Further studies sugget that a considerable majority (greater than 90%) think that they had been stressful. Female reported more symptoms. Academic exam were the more powerful stressors. More leisure time activities, better interaction with the faculty and proper stress from study by a Sheikh in Palestine Medical School,2004.

Research on depression on medical students in Sheikh Zayed Medical College Rahim Yar Khan. Pakistan showed that the total prevalence rate of anxiety and depression was 43.89% that depression was high among 1st year medical students follwed by 2nd year and 3rd year students. Depression was more common in female medical students. There was a significant association between the prevalence of anxiety and depression and the respective years of medical college.

In a study conducted in Pakistan. It was showed that overall prevalence rate of depression was 60%. It was comparatively high in 1st year and 2nd year as compared to 3rd and 4th year.

Study at Saudi Arabia reveled total prevalence of stress was 63%. It was more in female than male students.

Study of Bangalore reveled total prevalence rate of stress, anxiety and depression to be 49.3% with high

prevalent among 2nd year students as compared to 3rd and 4th year.

OBJECTIVES

The objectives of the study were to:

1. Determine the rate of depression among medical students of Sheikh Zayed Medical College, Rahim Year Khan.

2. Observe and association between depression and academic year.

3. Observe an association between depression and academic output.

4. Observe and association between depression and physical problems.

OPERATIONAL DEFINITIONS

Operational definition was made on the basis of Hamilton scale of depression.

1.   Score Less than 10 labelled as:
           Non Depressed.

2.   Scorer between 10-13 labelled as:
           Mildly Depressed.

3.   Scorer between 14-17 labelled as:
           Moderately Depressed

4.   Score greater than 17 labelled as:
           Severely Depressed.

METHODOLOGY

Setting:

Sheikh Zayed Medical College, Rahim Yar Khan.

Duration of Study:

It was from 27th April to 30th May 2015.

Study Population:

Medical students of Sheikh Zayed Medical College, Rahim Yar Khan

Study Design:

This study was a cross sectional study that was used to measure the prevalence of depression, stress and related factors among the Medical students for all years.

Sample Size:

Study was conducted on 100 Medical students half of them were females and other half were male. The study technique used was stratified sampling, in which 20 students from each class were selected randomly.

Inclusion Criteria:

All the medical students of Sheikh Zayed Medical College, Rahim Yar Khan, who were willing to give data.

Data Criteria:

Unwilling students were excluded.

Data Collection:

Study was conducted on 100 students, Redesigned questionnaire containing variables like name, age, gender, residence, health status, sleep habits, studies, daily activities, temperament and academic year was used to collect the data regarding prevalence of depression among medical students.

Data Analysis:

Data was entered into computerized SPSS software and various results were obtained.

TABLE No.01

Age Statistics (years)

Mean	21.22
Std. Error of Mean	.210
Median	21.00
Mode	21
Std. Deviation	2.097
Minimum	18
Maximum	28

Table No.01 shows that mean age of depression is 21.22 years with a range of 18-28 years.

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TABLE No.02

Age Statistics (years)

Age	Frequency	Percent (%)
18-20	40	40.0
21-23	46	46.0
24-26	13	13.0
27+	1	1.0
Total	100	100.0

Table No.2 shows that the prevalence of depression was highest among 21-23 age group followed by 18-20 age group.

TABLE No.03

Score for Depression According to residence

Residence	Score for depression				Total
	Non Depressed	Midly depressed	Moderately depressed	Severely depressed	
Day Scholars	13	2	0	1	15
Hostelides	35	23	13	14	85
Total	47	25	13	15	100

Table No.3 shows that the hostelides suffer from depression more than the day scholars.

TABLE No.04

Score for Depression According to Health

Good health	Score for depression				Total
	Non Depressed	Mildly depressed	Moderately depressed	Severely depressed	
Better than usual	16	7	1	0	24
Same as usual	4	7	8	8	27
Worse than usual	0	1	1	5	7
Much worse than usual	27	10	3	2	42
Total	47	25	13	15	100

Table No.4 shows that almost 42% of the students stated that their health was much worse than usual.

TABLE No.05

Score for Depression According to Temperament

Edgy and Bd tempered	Score for depression				Total
	Non Depressed	Mildly depressed	Moderately depressed	Severely depressed	
Not at all	15	6	3	2	26
No more than usual	5	12	7	5	29
Rather more than usual	2	2	2	8	14
Much more than usual	25	5	1	0	31
Total	**47**	**25**	**13**	**15**	**100**

Table No.05 shows that 31% students conveyed that they feel edgy and bad tempered much more than usual.

TABLE No.06

Score for Depression According to Daily Activities

Daily Activities	Score for depression				Total
	Non Depressed	Mildly depressed	Moderately depressed	Severely depressed	
More than usual	2	11	6	6	25
Same us usual	0	0	2	6	8
Less than usual	18	6	0	0	24
Much less than usual	27	8	5	3	43
Total	**47**	**25**	**13**	**15**	**11**

Table No.06 shows that 43% students have daily activities much less than usual.

TABLE No.07

Score for Depression According to Studies

Difficulty to concentrate on studies	Score for depression				Total
	Non Depressed	Mildly depressed	Moderately depressed	Severely depressed	
Not at all	24	9	5	1	39
No more than usual	7	9	3	1	20
More than usual	7	5	4	13	29
Much more than usual	9	2	1	0	12
Total	**47**	**25**	**13**	**15**	**100**

Table No.07 shows that 12% of the students have difficulty to concentrate on their studies much more than usual.

TABLE No.08

Suicidal thoughts due to depression

Suicidal thoughts	Score for depression				Total
	Non Depressed	Mildly depressed	Moderately depressed	Severely depressed	
Not at all	47	21	11	5	87
On and off	0	4	2	10	16
Total	**47**	**25**	**13**	**15**	**100**

Table No.08 shows that 16% of the students have suicidal thoughts due to depression.

TABLE No.09

Score for Depression According to Change in Appetite

Change in appetite	Score for depression				Total
	Non Depressed	Mildly depressed	Moderately depressed	Severely depressed	
Not at all	6	10	8	7	31
No more than usual	1	0	1	4	6
Less than usual	25	6	0	2	33
Much	15	9	4	2	30

less than usual					
Total	**47**	**25**	**13**	**15**	**100**

Table No.09 shows that 30% of the students have decreased appetitive due to depression.

TABLE No.10
Score for Depression According to Change in Sleeping Habits

Chamge in sleeping habits	Score for depression				Total
	Non Depressed	Mildly depressed	Moderately depressed	Severely depressed	
Not at all	11	8	1	8	28
Less than usual	23	12	9	4	48
More than usual	11	2	0	1	14
Much more than usual	2	3	3	2	10
Total	**47**	**25**	**12**	**15**	**100**

Table No.10 shows that 10% of the students have change in their sleeping habits.

TABLE No.11

Score for Depression According to Sex

Score for depression	Sex		Total
	Female	Male	
Non-depressed	22	25	47
Mildly depressed	10	15	25
Moderately depressed	12	1	13
Severely depressed	6	9	15
Total	**50**	**50**	**100**

Table No.11 shows that depression was significantly associated with the female gender.

TABLE No.12

Score for Depression According to Class

Class	Score for depression				Total
	Non Depressed	Mildly depressed	Moderately depressed	Severely depressed	
1st	8	5	4	3	20
2nd	6	3	3	8	20
3rd	12	8	0	0	20
4th	14	2	3	1	20
5th	7	7	3	3	20
Total	**47**	**25**	**13**	**15**	**100**

Table No.12 shows that prevalence of severely depressed students was 15% in all the five classes.

TABLE No.13

Overall Score for Depression

Score for depression	Frequency	Percent
Non depressed	47	47%
Mildly depressed	25	25%
Moderately depressed	13	13%
Severely depressed	15	15%
Total	**100**	**100%**

Table No.13 shows that the prevalence of depression among the students of SZMC RYK was 53%.

DISCUSSION

According to age statistics, mean age of depression is 21.22 with a range of 18-28 (Table No.1) Analysis of depression with age showed that the prevalence of depression was highest amount 21-23 age grouped (46%) followed by 18-20 age group (40%) (Table No.2) Study results showed that hostelides suffered from depression more than the day scholars (Tables No.3) Almost 42% of the depressed students stated that their health was much worse than usual (Table No.4) and 31&

conveyed that they feel edgy and bad tempered much more than usual due to deperession (Table No.5) 43% of the depressed students have day to day activities much less than ususal (Table No.6) only 12% of the depressed students have difficulty to concentrate on their studies much more than usual (Table No.7) According to the survey 16% of the students have suicidal thoughts due to depression (Table No.8) 30% of the student have decreased appetitie due to depression (Table No.9) 10% of depressed students have change in sleeping habits more than usual (Table No.10) Depression was significantly associated with the female gender i.e 56% (Table No.11) Overall prevalence of severely depressed students was 15% in all the five classes (Table No.12) and there were 47% students who were non depressed, 25% students were mildly depressed, 13% were moderately depressed and 15% severely depressed. The prevalence of depression among Sheikh Zayed Medical students was 53% (Table No.13)

A descriptive self-adminsitered questionnaire based study got a response rate of 100% which provided an adequate sample size to fulfill the objective of this study. The result of this study indicated higher prevalence of stress in our undergraduate students. The level of stress or de pression varied between stages of education. This Increased level of stress indicated a

decrease of psychological health in our students which any impairs student's behavior, diminishes learning, and ultimately affect patient care.

Overall prevalence of stress in this study was 59% which was consistent with the results of studies done at private university of Pakistan where the prevalence rate was 60%, at Saudi Arabia 63%, at Thai 64% and at Egypt 57.9%.

The prevalence of depression was higher among female medical students 56% as compared to male 50%.The study results were coherent with the results done at Saudi Arabia where prevalence of depression was more in females as compared to males. The difference in the depression rate might be due to more leisure time activities, better interaction with faculty, proper guidance and advisory services. The study found that depression was significantly associated with pressure prior to exam. The long hours as well as difficulty in lectures and tutorials among medical students would be due to information overload.

Findings of our study were not consistent with the findings done at Nepal 20.9% at Nishtar Medical College 43.89% and at Bangalore 49.3%. The difference in the depression rate may be due to another study reported that emotional disorders in medical students were caused by uncertainties about their lecturer's expectations which led to uncertainties about their performances. In this study, depression was most common among the 1st year and the 2nd year medical students as compared to other years.

Students should be taught on self- learning and critical thinking, skills, enable them to deal more effectively with the changes in their professional lifetime. Besides educational demands. Social and friendship related factors ae reasons for psychological disturbance in our students. Our students may be able to develop coping mechanism with the help of our student's support system.

There was significant association of the results of the study with other researches in the country as well as outside this country.

CONCLUSION

This study presents empirical evidence regarding the psychological health of students in our college. These findings suggest that high level of depression exist in our students during the initial 3 years of their course and pose additional challenges for students support

services delivery. This suggests that when students are taken into colleges, special care has to be taken to find out obvious psychiatric problems or just psychological distress in them. The major finding is that psychological distress in students is more common than population based estimate; therefore, it may require to address mental health problems along with common health strategies for our students. It is important to detect depression at an early stage so that treatment could be given to affected persons.

RECOMMENDATIONS

Student Mentorship Programs is suggested by most medical faculties and even has been set up in some institution, which offers consultation to students who may need assistance by academic staff. As most students turn to their course mates for support, it would also be beneficial to include senior medical students in these Mentorship programs, where these medical students can be mentors to their junior course mates. This will help new medical students especially those in 1st year to adjust as best possible with the university education and life style. Lectures on study

techniques, stress and time management should also be given.

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