

Symptoms and risk factors for depression among college Freshmen students

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Abstract

Introduction: Depression is an illness with a combination of associated symptoms of which the dominant one is a depressed mood of mind accompanied by the feeling of sadness and/or anxiety and/or irritability. It is a lengthy illness (lasting at least 2 weeks).

Objective: The study aimed to describe the symptoms and risk factors for depression among adolescent males and females of college freshman students.

Methodology & results: this is a descriptive observational and cross-sectional community-based study that was conducted on 200 college freshmen students in 4 medical colleges (medicine, dentistry, pharmacology and nursery) at the International University of Africa at Khartoum state in 2014. The age group was 16 – 19 years.

The study revealed that 20 (10%) students felt sad, 16 (8%) felt anxious, 57 (28.5%) felt empty, 64 (32%) felt hopeless, 49 (24.5%) felt guilty, 24 (12%) felt worthless, 70 (35%) felt helpless, 21 (10.5%) felt irritable and 39 (19.5%) felt restless. Also, one or more of the following; loss of interest in activities 68 (34%), lack of energy 90 (45%), problem concentrating, remembering information or making decisions 75 (37.5%), problems falling asleep or sleeping too much 102 (51%), loss of appetite or eating too much 46 (23%), thoughts of suicide or suicide attempts 9 (4.5%) and aches, pains, headaches, cramps or digestive problems that do not go away 30 (15%).

The risk factors include fear of failure, demands on time, financial pressures, low self-esteem, separation of their usual network support and poor coping strategies.

Recommendations: It was recommended to provide each college with a social worker/psychiatric nurse to early recognize the symptoms and risk factors for depression in first-year college freshmen, observe their behavior, educate them and their teachers and families about the symptoms and risk factors for depression and early recognition/prevention of depression and suicide.

Keywords: Symptoms; Risk Factors; Depression; College Freshmen

1. Introduction

Depression is an illness with a combination of associated symptoms of which the dominant one is a depressed mood of mind accompanied by the feeling of sadness and/or anxiety and/or irritability. It is a lengthy illness (lasting at least 2

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weeks). Depression affects the way we function in various ways; biological functions: disturbed sleep pattern, increase or reduce appetite, reduced libido and energy. Motivational functions; reduced interest in others, in leisure activities, in daily life, a feeling of uselessness and incompetence and in the worst cases suicidal thoughts. Cognitive functions: loss of self-esteem, inability to make a decision, pessimism and despair, reduced powers of concentration or attention and generally psychological attitudes. Behavioral functions; slower cerebral or motor functions, or, conversely, an agitated state; reduced frequency of active and productive behavior, increased frequency of passive and unproductive behavior.

The incidence of depressive symptoms has been increasing among college students. In one study of college students receiving counseling services between the years 1988 and 2001, a 20% increase occurred in the number of students seeking help for depressive symptoms during that period (Benton, Robertson, Tseng, Newton & Benton, 2003).

In a nationwide survey conducted by the American College Health Association in 2008; 94% of students reported feeling overwhelmed by the demands of the college (American College Health Association, 2009). Chronic levels of high anxiety are associated with the development of depressive symptoms in college students (Reed, 1996). College students face unique stressors intrinsic to the academic system that differ from their peers who are not in college. These stressors include fear of failure, demands on time, financial pressures, low self-esteem, separation of their usual network support and poor coping strategies (Hirsch & Ellis, 1996).

In a study that examined the social experiences of a group of freshmen (N=34), twenty-two participants completed their first year of college and twelve students withdrew from the university during their first year. Three themes emerged during the quantitative interviews as major reasons that influenced the students' decision to withdraw from the university. These themes included; difficulty making friends, difficulty with accommodation and finding independent study to be problematic (Wilcox, 2005). There was a 35% dropout rate for participants during their freshmen year (DeBerard, 2004). Often college freshmen face academic pressures and expectations that are considered greater than what had experienced in high school (Rayle, 2007).

2. Methodology

This is a descriptive observational and cross-sectional community-based study. The study was conducted on 200 college freshmen students in 4 medical colleges (medicine, dentistry, pharmacology and nursery) at the International University of Africa at Khartoum state in 2014. The age group was 16 – 19 years. The study aimed to describe the symptoms of depression and risk factors among adolescent males and females of college freshman students. A self-report questionnaire (Goldberg questionnaire) was used for data collection. Data were entered into the statistical analysis program, manually checked for errors and errors were corrected. According to Goldberg's depression classification; 18 items refer to how the participants felt and behaved during the past week e.g.: I do things slowly, my future seems hopeless and it is hard for me to concentrate. The choices for all questions were scored from 0 – 5. The score was interpreted; 54 and more severely depressed, 36 to 53 moderate-severe, 22 – 35 mild-moderate, 18 – 21 borderline-depression, 10 – 17 possibly mildly depressed and 0-9 no depression likely.

3. Results

It was found that 34 (17%) students were aged 16 years, 38 (19%) were 17 years, 68 (34%) were 18 years and 60 (30%) were 19 years Fig. (1). male: female ratio was 1:1. The prevalence of depression was found to be 80% as it was found that 41 (20.5%) students had no depression likely, 38 (19%) possibly mild depression, 17 (8.5%) had borderline depression, 58 (29%) had mild-moderate depression, 38 (19%) had moderate-severe depression and only 8 (4%) had severe depression (Fig. 1) & (Fig. 2).

The study revealed that 20 (10%) students felt sad, 16 (8%) felt anxious, 57 (28.5%) felt empty, 64 (32%) felt hopeless, 49 (24.5%) felt guilty, 24 (12%) felt worthless, 70 (35%) felt helpless, 21 (10.5%) felt irritable and 39 (19.5%) felt restless (Table1). Also one or more of the following; loss of interest in activities 68 (34%), lack of energy 90 (45%), problem concentrating, remembering information or making decisions 75 (37.5%), problems falling asleep or sleeping too much 102 (51%), loss of appetite or eating too much 46 (23%), thoughts of suicide or suicide attempts 9 (4.5%) and aches, pains, headaches, cramps or digestive problems that do not go away 30 (15%) (Table2).

Reported high-risk behavior revealed that only 10.5% reported smoking cigarettes at least one day in the past 30 days 9% of them were males. Almost 4% of students reported having sexual intercourse with at least one partner in the past 3 months. 8% reported having at least one alcoholic beverage, opioid or drug use in the past 30 days. Almost one-third (32.4%) reported they were slightly overweight and (51.6%) reported they wanted to lose weight (Table3).

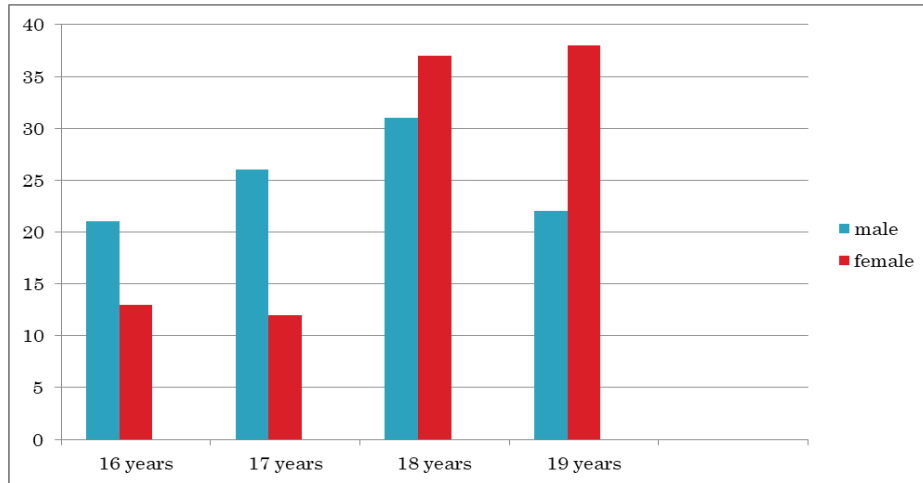


Figure 1 Sample distribution according to age and sex

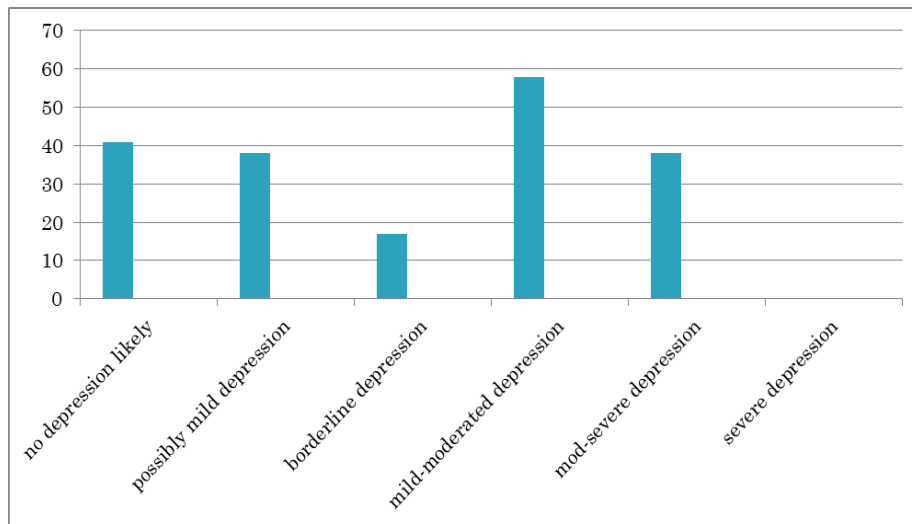


Figure 2 Prevalence of depression

Table 1 Distribution of symptoms of depression

Symptom	Frequency	Percent%
Sad	20	10%
Anxious	16	8%
Empty	57	28.5%
Hopeless	64	32%
Guilty	49	24.5%
Worthless	24	12%
Helpless	70	35%
Irritable	21	10.5%
Restless	39	19.5%

Table 2 Features of depression

Feature	Frequency	Percent %
Loss of interest in activities	68	34%
Lack of energy	90	45%
Problem concentrating, or making a decision	75	37.5%
Sleep problem	102	51%
Feeding problem	46	23%
Suicidal thoughts/attempts	9	4.5%
Pains, headaches, digestive symptoms	30	15%

Table 3 High-risk behavior

Behaviour	Frequency	Percent%
Smoking cigarette	21	10.5%
Alcohol usage/opioid/drug	16	8%
Sexual intercourse	8	4%
Think overweight	65	32.5%
Want to lose weight	103	51.5%

4. Discussion

In most medical schools, the environment itself was prevailing pressure providing an authoritarian and inflexible system that encourages competition instead of co-operation among students. The demands placed on medical trainees pose changes to personal wellbeing leading to burnout and erosion of empathy. Here the presence of psychological morbidity in medical undergraduate students has been reported from various countries across the world.

In our study the age group was 16 – 19 years: 34 (17%) of the students were aged 16 years, 38 (19%) were 17 years, 68 (34%) were 18 years and 60 (30%) were 19 years (Fig.1). Male: female ratio was 1:1. This was almost similar to the studies from Iran and in Alexandria University in Egypt where male to female ratio was 1.2 and 1:02 respectively. The prevalence of depression was found 80% in our study compared to only 33% in the study conducted in Iran by Diana Sarokhani et al and 57.9% in study in Alexandria University in Egypt (Diana Sarokhani et al. 2013, Motaz B. Ibrahim 2014).

Regarding the degree of depression: in our study; 41 (20.5%) of students had no depression, 17 (8.5%) had borderline depression, 38 (19%) had possibly mild depression, 58 (29%) had mild-moderate depression, 38 (19%) had moderate-severe depression and only 8 (4%) had severe depression (Fig. 2). The degree of depression related to sex: depression among males and females was estimated, 26 (13%) of males and 15 (7.5%) of females had no depression likely, 13 (6.5%) of males and 25 (12.5%) of females had a possibly of mild depression, 8 (4%) males and 9 (4.5%) females at borderline of depression, 30 (15%) of males and 28 (14%) had a mild-moderate depression, 17 (8.5%) males and 21 (10.5%) females had moderate-severe depression while severe depression in 6 (3%) of males and 2 (1%) of females (Fig. 2). The data from Brazil showed: mild depression in 34.5%, moderate depression in 4.8% while severe depression occurred in only 1.2% (Edmea Fontes de Olva et al, 2012) as well as the study from Nigeria among students of Ahmadu Bello University (ABU), Zaria, (58.2%) of the students had depression, 37.0% of them had mild depression, moderate in 15.7%, and severe in 1.6% (Aisha Dabana, Abdulrazaq A Gobir, 2018).

A study from Saudi Arabia, Albaha, the prevalence of depression was 53.8%, among medical students and interns, of which borderline depression in 8.2 % mild among 25.8%, moderate depression in 5.4% and severe or extreme among 4.4% of them (Mohannad A. Albajjar and Marwan A. Bakarman, 2019). In our study the moderate-severe depression

was found to be 19% compared to the study from Pennsylvania where they found that 24% had moderate to severe depression (Givens et al, 2002).

All studies of the above show the same result as our study but there are studies from Alexandria and Hawaii which are different, the study of Alexandria, Egypt in which moderate depression occurs in 27.9% and severe depression occurs in 17.2% (Wafa Ihab Hafez et al, 2020). also, another study from Hawaii in which, depression among medical students and residence occurs in 21.2%, 12% of them had a probable major depression while 9.2% probably had mild/ moderate depression (Goebert, Deborah et al, 2009), from these two previous studies, the prevalence of severe depression is higher than in our study.

In this study, high behavioral risks had been observed including, cigarette smoking, alcohol usage, sexual behavior and an eating disorder In our study almost 89.5% of students reported ever having tried cigarette smoking, while only 10.5% of them had smoked cigarettes at least one day in the past 30 days, also 4% of students reported having sexual intercourse with at least one partner in the past 3 months, in comparison to another study conducted at Alfaisal University in Riyadh, Saudi Arabia, regular smoking in (16%), of which 11.3% of the smoker were females (Bibi Kulsoom and Nasir Ali Afsar, 2015). In regards to alcohol consumption 8% had reported having at least one alcoholic beverage in the past 30 days. Related to weight almost one third (32.4%) had reported to have slightly overweight and a half (51.6%), wanted to lose weight Table (2).

Recommendations

It was recommended to provide each college with a social worker/psychiatric nurse to early recognize the symptoms and risk factors for depression in first-year college freshmen observe their behavior, educate them and their teachers and families about the symptoms and risk factors for depression and early recognition/prevention of depression and suicide.

5. Conclusion

The presence of psychological morbidity in medical undergraduate students has been reported from various countries across the world. Depression is estimated to be 20% up to 80% as in our study. This indicates the need for early detection/ prevention of morbidity and mortality from depression.

Compliance with ethical standards

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Disclosure of conflict of interest

None to disclose.

Statement of informed consent

Informed consent was obtained from all participants included in the study.

References

- [1] Diana Sarokhani et al. Prevalence of Depression among University Students. A Systematic Review and Meta-Analysis Study, Hindawi Publishing Corporation, 2013; 7.
- [2] Motaz B. Ibrahim *, Moataz H. Abdelreheem. Prevalence of anxiety and depression among medical and pharmaceutical students in Alexandria University. Alexandria Journal of Medicine.2015; 51: 167–173.
- [3] Edmea Fontes de Olva et al. Depressive Symptoms among medical intern students in a Brazilian public university. Revista da associaco MedicaBrasileria (English Edition) January February 2012; 58(1).
- [4] Aisha Dabana¹, Abdulrazaq A Gobir². Depression among students of a Nigerian University: Prevalence and academic correlates. Original article. 2018; 3(1): 6–10.

- [5] Mohannad A. Albajjar¹ and Marwan A. Bakarman², Prevalence and correlates of depression among male medical students and interns in Albaha University, Saudi Arabia. *J Family. Med Prim care.* Jun 2019; 6(8): 1889 – 1894.
- [6] Givens et al, Depressed Medical Students, Use of Mental Health Services and Barriers to use. *Academic Medicine.* September 2002; 77(9): 918- 921.
- [7] Wafa Ihab Hafez, Aida Aly Reda Sherif, Medhat Salah Eldin Atta, Nessrin Ahmed El- Nimr. Depression among medical students in Alexandria, Egypt. *Africa health science.* 2020; 20(3).
- [8] Goebert, Deborah et al. Depressive symptoms in Medical Students and Residents. A Multischool Study *Academic. Academic Medicine,* February 2009; 84(2).
- [9] Bibi Kulsoom and Nasir Ali Afsar. Stress, anxiety, and depression among medical students in a multiethnic setting. *Neuropsychiatr Dis Treat.* 2015; 11: 1713–1722.