

Prevalence of depression symptoms in medical students at a higher education institution



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ABSTRACT

College students are vulnerable to disorders like depression, when it comes to medical students, there is a higher prevalence comparing to the general population. This research aims to determine the prevalence of depressive symptoms in medical students from the first and fourth year of the institution of Belém/PA. This is a cross-sectional study and the data collection instrument was Beck Depression Inventory. 160 students answered to the questionnaire, constituting a sample of 62,5% of the population. Among these, 42,5% had depressive symptoms, 13,7% had moderate to severe symptoms and 28,7% had mild symptoms. The prevalence of depressive symptoms in medical students is higher than in the general and similar student population and the data collected from corroborate this statement.

Keywords: Depression, Medicine, Epidemiology.



1 INTRODUCTION

Depressive disorders are characterized by the presence of sad, empty or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's ability to function¹. Depression is a multifactorial disorder that involves genetic, environmental, temperamental and neurovegetative factors and has an estimated prevalence of 5.8% of the Brazilian population^{1,2,3}.

The symptoms of depressive disorders include depressed mood, decreased interest or pleasure in activities, changes in weight or appetite, changes in sleep, psychomotor changes, loss of energy, feeling of excessive guilt, reduced concentration and recurrent thoughts of death^{1,4,5}. Depressive disorders are classified into Major Depressive Disorder (which includes major depressive episode) with symptoms present for – at least – two weeks and Persistent Depressive Disorder (dysthymia) that has symptoms for 2 years or more, in addition to other disorders such as premenstrual dysphoric disorder, disruptive mood dysregulation disorder, substance/drug-induced depressive disorder, depressive disorder due to another medical condition, specified depressive disorder, and unspecified depressive disorder¹.

University students are vulnerable due to constant exposure to stressful events, increasing the chance of developing depressive disorders^{6,7}. It is estimated that 15 to 25% of university students present some psychiatric disorder during their training, especially depressive and anxiety disorders^{2,5}.

In medical students, high prevalences of depressive symptoms are found, with rates of up to 79%⁸. Among the aggravating factors are the high workload, the extensive didactic content, living with diseases and death, difficulty in communicating bad news to patients and families, competitiveness, pressure par excellence, insecurity in relation to one's own competence, little leisure time, as well as changes in lifestyle with poor eating habits, sedentary lifestyle and alcohol consumption^{2, 5, 8,9, 10, 11}. The treatment of depressive disorders in medical students presents barriers, such as the stigma associated with mental illness and psychiatric treatments; and early identification and treatment are associated with reduced risk of suicide^{2,9}.

Therefore, this work aims to enrich the scientific production on the subject and, in a social way, alert academics and faculty, through the analysis of statistical data regarding the prevalence of depressive symptoms in medical students from different periods of the course and relate to the possible risk factors for these symptoms, so that students can become aware of the need to intervene in their suffering and, If necessary, seek family, institutional and professional help in order to improve their quality of life.

The objective of this research was to study the prevalence of depression symptoms in medical students of the 1st, 2nd, 7th and 8th period of an institution in Belém/PA.



2 METHODOLOGY

The study is of the cross-sectional type, without collection of biological material and was carried out in an institution that has the medical course in Belém/PA

The target population comprised students from the 1st, 2nd, 7th and 8th period of the medical course. These periods were selected because they represent the entrance to the course and the last year before the internship.

Medical students of the institution who refused to participate in the research or did not sign the Free and Informed Consent Form were excluded from this study; students who for any reason gave up the research; students who requested transfer from the course and students who did not fill out, or filled out, the questionnaire incorrectly, as well as students from other semesters were excluded from the study.

The research was approved by the Research Ethics Committee (CEP) of the institution under opinion number 3,632,237.

The project was exposed to the students after approval by the Research Ethics Committee (CEP) and signing of the free and informed consent form (ICF), to those who expressed a desire to participate in the research, as well as the completion of the research data collection instruments.

The instrument used to identify the prevalence of symptoms and risk factors is the Beck Depression Inventory – IBD. This inventory, developed by Aaron Beck, is the most widely used depression self-assessment instrument in research and clinical practice, having been translated into several languages and has already been validated in Brazil. This scale consists of 21 items related to symptoms such as: sadness, pessimism, feeling of failure, feeling of punishment, self-deprecation, suicidal ideas, irritability, social withdrawal, sleep disturbance, appetite changes, among other items that identify depression disorders. To evaluate the outcome, a value from 0 to 3 is determined for each response and the final result is compared to a key to determine the degree of depression. The basic values: 0 to 9 indicate that there is no depression, 10 to 18 indicate mild to moderate depression, 19 to 29 indicate moderate to severe depression, 30 to 63 indicate severe depression.^{12th}

The Beck inventory does not give a diagnosis of depression, it is used to track depressive symptoms in the population. For the establishment of the diagnosis, after obtaining the result, the individual needs to be evaluated by a specialist.^{12th}

3 FINDINGS

Among the 256 students regularly enrolled in the first, second, seventh and eighth semesters of the medical course of the Centro Universitário Metropolitano da Amazônia (UNIFAMAZ), 160 students voluntarily participated in the research. Thus, the study sample consists of 62.5% of the studied population that was ready to respond to the Beck Depression Inventory (Graph 1).



Figure 1. Distribution by semester.

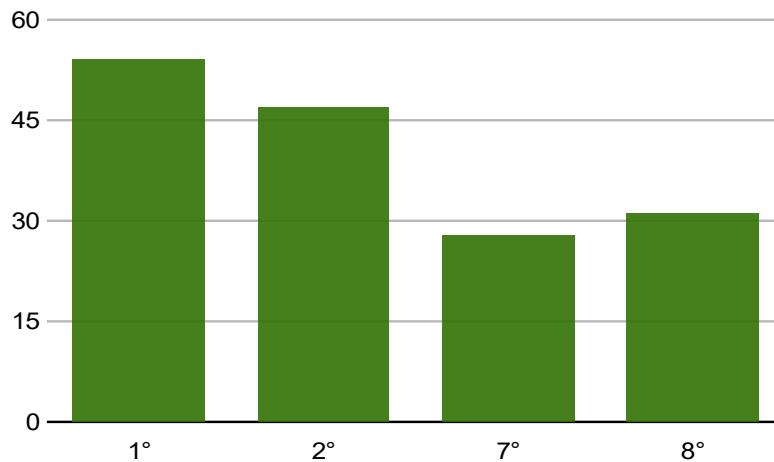


Table 1 - Number of students according to the degree of depressive symptoms

Degree	n	%
Minimum (0-9)	92	57,5
Light (10-16)	46	28,75
Moderate (17-29)	16	10
Severe (30-63)	6	3,75
Total	160	100

Source: Field research

In the population interviewed, 42.5% have depressive symptoms according to the BDI score established for this study (Table 1).

The age of the students evaluated ranged from 17 to 42 years, with a mean of 21.4 years. The prevalence of moderate and severe depressive symptoms among students was 13.75%, while 28.75% had mild symptoms. 57.5% of the students investigated did not present symptoms considered depressive. Regarding the occurrence of depressive symptoms and the period of the course, it was identified that the eighth semester presented a higher prevalence of depression, presenting 68.2% (n=29) of the students with mild, moderate or severe depression, followed by the first period, in which 40% (n=17) of the students showed some degree of depression.

Results were also analyzed for each BDI question individually, in order to establish some predominant symptom among individuals in this population group.

Thus, 41% of the students stated that they feel sad and 46% no longer feel pleasure in things as before (Graph 2). It was also observed that 44% are disappointed in themselves and 48% need some extra effort to do something (Graph 3). In addition, 64% of them were more irritated than they had already been (Graph 4).



Figure 2. Evaluation of pleasure Graph 3. Stress assessment

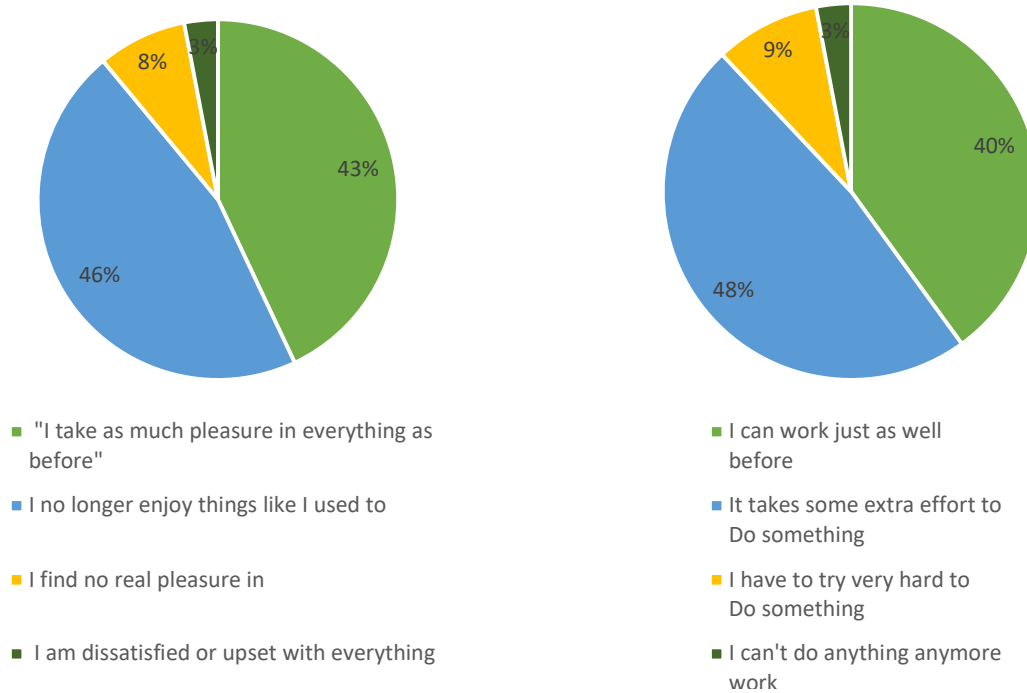
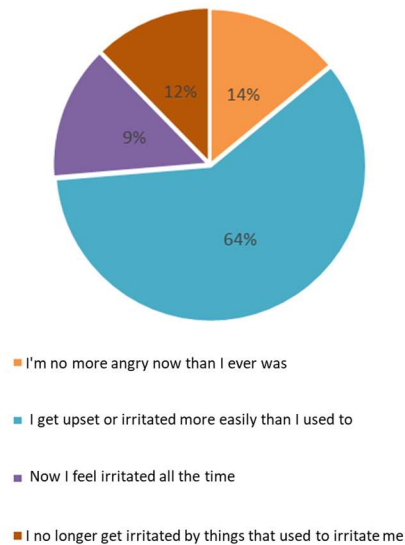


Figure 4. Assessment of irritation



4 DISCUSSION

According to the DSM-V1, the prevalence of major depressive disorder is approximately 7% in the general population of the United States, similar to the prevalence found in Brazil, of 7.6%.¹⁴ The results found in this study, with the prevalence of depressive symptoms in 42.5% of the participants, reaffirm the literature that shows greater involvement of depression in medical students than in the general population.^{8, 11, 13-18}



Studies indicate that medical school can function as a stressor, triggering or potentiating a depressive disorder.¹⁶ Of the 100% of the students who could have composed the sample, 62.5% answered the questionnaire. In this study, it was observed that the period of the course with the highest prevalence of depressive symptoms was the 8th semester (68.2%), followed by the 1st semester (40%). Research indicates that stressors in the pre-vestibular period may be related to depressive symptoms at the beginning of the course.^{17, 19} In relation to the 4th year of the course (seventh and eighth), research highlights its importance because it is the last year preceding the internship.¹⁶ Other studies were found that did not show significant differences related to the years of the course.^{8,13}

Regarding the symptoms investigated by the questionnaire, the most prevalent was irritability (73%), followed by fatigue (60%), reduction or loss of the sensation of pleasure (57%) and self-deprecation. These results were similar to those found in publications on the subject, which also highlighted insomnia and the feeling of failure and guilt.^{13, 16, 17}

The limitations of the study are related to the cross-sectional design, which does not allow inferring causality and to the use of the Beck Depression Inventory, which does not allow establishing a temporal relationship between the onset of depressive symptoms and college admission, since it evaluates only the last weeks.

It is suggested, in future research, the performance of longitudinal studies and the association of depressive symptoms with other factors, such as alcohol and drug use, which have been cited in studies.^{7, 13, 15, 19}

5 CONCLUSION

Reaching the end of the course, it is perceived that the research carried out in this study made it possible to identify issues that may provide a better understanding of the mental health of students enrolled in the medical course.

The World Health Organization defines mental health as a state of well-being in which the individual can realize their potentials, deal with everyday stresses, and work³. In this context, depression is a common mental disorder related to psychological, social and biological factors that has the potential to limit the functional capacities of individuals.³ It is a global problem of significant proportions and an occurrence in medical students has been the subject of studies for decades.¹³

Studies show that medical students present a reduction in quality of life since the vestibular period and during graduation due to stress, reduced sleep hours, demand for good results and high study load.

Based on the data collected and analyzed, in addition to the discussion of them, it is concluded that the prevalence of symptoms, based on the BDI is mainly found in the students of the eighth semester, with a greater finding regarding irritability, fatigue, reduction or loss of the sensation of



pleasure and self-deprecation. Points that should be investigated further, because they directly influence your health, gym routine and, in the future, work.

In addition, another relevant finding was regarding the students of the first semester, who also deserve attention, and can be taken into account a previous disease and consequences arising from the preparatory courses. In order to provide medical students with a complete and appropriate training, it requires on the part of the entire institution a humanized look put into practice, from the entry of this student, empowering them in an emotional and technical way for life.

However, compared to the period, the 7th and 4th semesters presented lower scores regarding the questionnaire, but not exempting them, because they are exposed to the aggressor agents that is the academic experience, in addition to the external factors that can influence mental health.

The importance of this study is shown when we realize that mental health is neglected, even compromising academic performance. Finally, the present study did not intend to exhaust the theme, on the contrary, the idea was to contribute to the development of research and data that enable intervention proposals, giving more visibility to the theme, since it is believed that this subject deserves the attention of the academic community.



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