Depressive symptoms among medical intern students in a Brazilian public university

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Summary

Objective: To estimate, among Medical School intern students, the prevalence of depressive symptoms and their severity, as well as associated factors. **Methods:** Cross-sectional study in May 2008, with a representative sample of Medical intern students (n = 84) from Universidade Federal de Sergipe (UFS). Beck Depression Inventory (BDI) and a structured questionnaire containing information on sociodemographic variables, teaching-learning process, and personal aspects were used. The exploratory data analysis was performed by descriptive and inferential statistics. Finally, the analysis of multiple variables by logistic regression and the calculation of simple and adjusted ORs with their respective 95% confidence intervals were performed. **Results:** The general prevalence was 40.5%, with 1.2% (95% CI: 0.0-6.5) of severe depressive symptoms; 4.8% (95% CI: 1.3-11.7) of moderate depressive symptoms; and 34.5% (95% CI: 24.5-45.7) of mild depressive symptoms. The logistic regression revealed the variables with a major impact associated with the emergence of depressive symptoms: thoughts of dropping out (OR 6.24; p = 0.002); emotional stress (OR 7.43; p = 0.0004); and average academic performance (OR 4.74; p = 0.0001). **Conclusion:** The high prevalence of depressive symptoms in the study population was associated with variables related to the teaching-learning process and personal aspects, suggesting immediate preemptive measures regarding medical school graduation and student care are required.

Keywords: Depression; mental disorders; medical students; mental health; medical education.

Study conducted at Universidade Federal da Bahia, Salvador, BA, Brazil

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Conflicts of interest: None

Introduction

In medical schools with a standard curriculum following the Flexnerian model, the intern student has an opportunity to live the medical practice experience more realistically and intensely and to assume a new attitude towards patients. He/she is no longer a mere observer, supported by a mostly theoretical knowledge; now he/she can be active, intervene, criticize practices, and exercise an undiminished physician-patient contact, even though he/she is still under intructors' guidance and mentoring[1]. Thus, the future health professionals are susceptible early on to stress and pressure sources inherent to the medical graduation process, which can possibly lead to mental illness[2].

Some authors point out that medical students would be more predisposed than other university students to mental disorders, including depressive disorder, mainly at the final stage of the course, due to several factors, such as: individual personality characteristics favoring the choice of profession; chronic exposure to stressors from an occupation that deals with pain and death; and trouble with the teaching-learning process[3-5].

The annual prevalence of depression in general population ranges from 3% to 11%, being two to three times more frequent in women than in men. Depression was identified as the fourth specific leading cause of disability in the 1990s by a global scale comparing several diseases[6,7]. However, in a recent survey published in a reputed international journal, mental disorders were considered the main cause of disability in Brazil, accounting for the most important loss of quality-adjusted life years in the country, with 18.8% of Brazilians reporting a depression diagnosis, thus being a relevant public health issue[8].

The early detection of psychic distress symptoms or mental disorders is extremely important in order to avoid disorder chronicity[1]. Thus, aiming to estimate the prevalence and severity of depressive symptoms among medical intern students at Universidade Federal de Sergipe (UFS), in addition to identifying associated factors, the authors developed the current study, which may contribute to the reflection and planning of appropriate preemptive measures.

Methods

Study setting

The study setting was the UFS, currently offering 100 places/year in its medical school. Students approved by the entrance exam get into medical school in order of ranking, with the first 50 approved students getting into the course in the first half of the year, and the 50 remaining students getting into the course in the second half of the year. The course is based on the traditional model for medical education, having 12 semesters: the 1st through 4th semesters comprise the basic science cycle; the 5th through 9th semesters comprise the pre-clinical cycle; and the 10th through 12th semesters are the internship.

Sample

Among the 117 medical intern students in UFS, after calculating for a finite sample with a 5% margin of error, we reached a sample size of 87 students, selected through a simple ticket sampling.

Study design

Cross-sectional, exploratory, descriptive, analytical, and inferential study performed in May of 2008.

Data collection

The ticket sampled students completed two closed questionnaires over the scientific meeting times: 1) Beck Depression Inventory (BDI)[6]; 2) a questionnaire designed by the lead author, already tested in a previous pilot study, and used in other studies on mental health of the medical school student at UFS[9].

Tools

1 – Beck Depression Inventory (BDI)

Beck Depression Inventory (BDI) is a standardized self-administered questionnaire described by researchers at the Center for Cognitive Therapy (CCT) as a depression self-reported measure widely used both in research and clinical settings[6]. The scale consists of 21 items including, but not limited to sadness, pessimism, feelings of failure, lack of satisfaction, and feelings of guilt.

There are several suggestions of different cut-off points to distinguish depression symptoms levels by using BDI. The present study used the cut-off points recommended by CCT: 9/10, 18/19, and 29/30[6]. Scores below 10 were considered to correspond to a person with no depression symptoms or having marginal symptoms; a score between 10 and 18, mild to moderate depression symptoms; a score between 19 and 29, moderate to severe depression symptoms; a score from 30 up to 63, profound depression symptoms.

BDI has no intention of being diagnostic. As a standardized tool, it can fail in detecting "masked depression and anxiety" in patients denying their emotional distress. On the other hand, many patients have physical causes for fatigue and as other somatic symptoms constitute important factors in any tool used in detecting emotional disorders – which has already been warned of by some researchers – , BDI may overestimate the disorder[10].

2 – Specific questionnaire

This is a self-administered questionnaire consisting of 54 closed and pre-coded questions covering sociodemographic characteristics, the teaching-learning process and