

PREVALENCE AND FACTORS ASSOCIATED WITH DEPRESSION IN MEDICAL STUDENTS

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Clinical applications of the study: Interventions are vital in the field of Public Health to take care of the professionals who look after the population. Medical students with a high prevalence of depression have difficulty caring for people both during and after their graduation when exercising their function as doctors.

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Abstract

Introduction: depression, besides causing great psychological distress, may lead to poor academic performance and social relationships. **Objective:** to examine the prevalence of depressive symptoms in medical students from a northeastern region of Brazil. **Methods:** the population comprised 1024 students from first to twelfth semesters of two medical schools in Cariri, Ceará, Brazil. We used the questionnaire on sociodemographic characteristics and the Beck Depression Inventory II version. **Results:** the prevalence in this population for the diagnosis of depression was 28.8%.652 (63.7%) complied with all protocols to stay in research. After logistic regression, had a negative impact on students mental health: female Odds Ratio adjusted (ORa) (95% CI): 1.83 (1.19 to 2.82), reasonable physical health ORa (95% CI): 3.15 (2 0.09 to 4, 73), uncertainty about professional future ORa (95% CI): 2.97 (1.65 to 5.34), desire to change course ORa (95% CI): 2.51 (1.63 to 3.86), good social relationship but without participation in social activities ORa (95% CI): 1.96 (1.27 to 3.04), relationship difficulties ORa (95% CI): 11.40 (4.32 to 30.14) and rare leisure activities (95% CI): 2.45 (1.49 to 4.04) or eventual leisure activities ORa (95% CI): 3.04 (1.70 to 5.42). **Conclusion:** there was a high prevalence of depression among medical students in this region. Female, reasonable physical health, uncertainty over future career, desire to change course, do not participate in social activities and / or difficulties in relationships, sporadic or rare leisure activity were associated with increased risk of developing depressive symptoms.

Key words: depression, students, medical, prevalence, depressive disorder, education medical.

INTRODUCTION

Depression is a significant contributor to the global burden of disease and affects people in all communities across the world. Today, depression is estimated to affect 350 million people. The World Mental Health Survey conducted in 17 countries found that on average about 1 in 20 people reported having had an episode of depression in the previous year¹.

The clinical symptoms of depression^{2,3} are; depressed mood, sadness, loss of interest, significant weight loss or gain, insomnia or hypersomnia, agitation or psychomotor retardation,

fatigue or loss of energy, feelings of worthlessness or excessive or inappropriate guilt, indecisiveness or diminished ability to think or concentrate and recurrent thoughts of death. Besides causing great psychological distress, depression can lead to poor academic performance and social relationships⁴.

The term depression has been used in several studies to denote both depressive symptoms and depressive disorders; however the presence of symptoms may not necessarily correspond to a depressive episode.

Factors closely related to depression are drug abuse and suicide; many individuals seek drugs as

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a way to relieve symptoms of depression or alternatively, depression can be related to the withdrawal from a substance⁵. Suicide is an important indicator of the severity of a depressive episode².

Throughout life, the prevalence of depressive disorders in the general population is around 7%, while that of depressive symptoms is around 12.6%^{2,3}. These symptoms can impair the functional and psychosocial lives of individuals, and, when not recognized and treated, may constitute a risk for a major depressive disorder⁴.

Studies performed^{6,7} with college students revealed rates of illness for some types of psychiatric disorder at the time of graduation of around 15-25%. Depressive and anxiety disorders were the most prevalent^{6,7}.

Among university students, students from medical school have been consistently targeted in research related to depression, presenting prevalence for depressive disorders ranging from 8-64%⁵⁻⁹. This wide variation may be explained by the variety of existing validated instruments for surveying depressive symptoms in nonclinical populations as well as the different established cut-off points.

It has been suggested that stressful events during medical training are possible triggers of depressive symptoms such as: little leisure time, contact with disease and death, the aggressiveness inherent in many medical procedures, difficulty in communicating bad news to patients and their families and "problem patients"¹⁰.

Depression is a public health problem and although it is prevalent among higher education professionals^{6,7}, it affects many strata of society^{6,7}. In view of the above, the objective of this study was to estimate the prevalence of depressive symptoms and their association with the sociodemographic and psychosocial aspects of medical students from a northeastern region of Brazil.

METHODS

This was a cross-sectional study conducted from September to November 2013, with a population consisting of 1024 medical students; 356 students from the Federal University of Cariri (UFCa) and 668 students from the Faculty of Medicine Juazeiro do Norte – Estacio/FMJ.

The students signed a "Free and Informed Consent" form (FIC) prior to participation in the study. Filling in the sociodemographic questionnaire and the Beck Depression Inventory version II were characterized as inclusion criteria.

The choice of which courses to include in the study was made due to their similar number of semesters and academic years. The undergraduate course in medicine is divided into three modules: basic (1st to 4th semester), intermediate (5th to 8th semester) and internship (9th to 12th semester).

Of the potential population (1024), 652 (63.7%) fulfilled all the relevant criteria to remain in the study. Any students who participated in the survey as facilitators were excluded.

The sociodemographic characterization questionnaire was applied, containing 24 questions, in addition to the following supplementary data: course duration, university, age, sex, skin color, state and country of birth, marital status, offspring, religion, place of residence, transportation used to get to college, remunerated activities, physical health, alcohol and tobacco use, lifestyle, social relationships, satisfaction with the course, among others; together with the Beck Depression Inventory version II (BDI-II).

The BDI-II is a standardized, self-administered questionnaire configured as a self-assessed measurement of the symptoms of depression. It consists of 21 statements which vary in intensity from zero to three, thus having a final score ranging from zero to 63.

The established cut-off points followed the criteria of the most recent BDI-II validated in Brazil in community samples, with zero to ten points corresponding to normal and from 11-points onwards constituting depression^{11,12}.

Depression was adopted as the dependent variable, analyzed according to the independent variables sex, institution of higher learning, the course module, age, religion, marital status, perceived physical health, tobacco use, alcohol use, leisure activities, quality of social relationships, uncertainty regarding future career and desire to change courses.

From the completed questionnaires a database was designed in the STATA program, version 12, in which were developed descriptive and inferential statistics, using tables with absolute and relative frequencies, mean, standard deviation, maximum, minimum, prevalence coefficient and the Pearson's chi-squared test, adopting a statistical significance value of $p < 0.05$.

After the Chi-Squared test, from the variables which presented a p-value of up to 0.2 with the variable depression, a multinomial logistic model was developed, obtaining Odds Ratio (OR) values as a function of the variables retained in this model, allowing the interpretation the OR estimates and confidence interval (CI) already adjusted for variables involved in this analysis^{13,14}.

The project was approved by the Ethics Committee of the Faculty of Medicine of ABC, Opinion number: 268.234.

RESULTS

Tables 1 to 4 present the descriptive and associative events of depression.

The study included 652 students (63.7%) distributed in all semesters of medical school at two institutions located in the region of Cariri, one private (68.9%) and the other public (31.1%). The majority of the participants were; enrolled in the basic module (44.3%), female (58.9%), with a mean age of 22.74 ± 3.68 and the highest concentration in the range of 20 to 27 years old (73.0%), the skin color was predominantly white (58.9%) (Table 1).

Most students came from the state of Ceará (75.6%), while 93.5% were unmarried, 50.3% were in a loving relationship and 71.2% were Catholic. More than half lived with their family (55.1%) and 29.5% lived with other students (Table 1). Regarding social relationships, 60.7% reported relating well with friends and relatives and frequently participated in social activities. 40.5% of the students occasionally took part in leisure activities and 66.3% chose medical school willingly.

Generally, the main form of transport for the students was their own car (46.6%). The majority of students did not carry out any remunerated activities (82.5%), but it was observed that students from the public Higher Education Institution (HEI), although mostly not engaging in any paid activity (65.3%) did carry out more educational activities with a grant (30.2%) when compared with the private school students (3.3%), this fact probably reflects the distinct opportunities in the HEI. Most students described their physical health as good, consumed alcohol but did not use tobacco.

The prevalence found in this population for the diagnosis of depression was 28.8%, and the average score of the depressed students in the BDI-II was 16.9 ± 6.4 (Table 2), 10.34% of the students had suicidal thoughts (Table 3).

Following the Pearson's chi-squared test, the variables ($p < 0.20$) selected for the logistic regression model were: sex ($p < 0.001$), religion ($p = 0.185$), physical health ($p < 0.001$), smoking ($p = 0.111$), uncertainty about professional future ($p < 0.001$), desire to change courses ($p < 0.001$), social relationships ($p < 0.001$) and leisure activities ($p < 0.001$). Since marital status ($p = 0.342$) was a factor commonly associated with depressive symptoms the decision was made to include this variable in the logistic regression (Table 4).

The following variables were not entered in the logistic regression model: institution of higher education ($p = 0.441$), course module ($p = 0.439$), age ($p = 0.950$) and alcohol use ($p = 0.472$).

In the adjusted model, the selected variables were able to explain 23.54% of the diagnosis of depression in the study participants ($r^2 = 0.2354$).

Table 1: Distribution of the 652 medical students by socio-demographic characteristics, from the region of Crajubar/Cariri Ceará, Northeast Brazil, in 2014

Demographic variables	Categories	N	%
Course module	Basic	289	44.3
	Intermediate	255	39.1
	Internship	108	16.6
Type of institution	Private	448	68.9
	Public	202	31.1
Age	Up to 19 years	112	17.6
	20 to 27 years	464	73.0
	28 years or over	60	9.4
Sex	Masculine	268	41.1
	Feminine	384	58.9
Skin color	White	386	59.7
	Black	16	2.5
	Mixed	231	35.7
	Yellow	14	2.2
Region of origin	Not identified	7	1.1
	CE	493	75.6
	NE	110	16.9
	Outside the NE	42	6.4
Marital Status	Single with partner or boy/girlfriend	326	50.3
	Single with no partner or boy/girlfriend	280	43.2
	Married/Stable relationship	42	6.5
Religion	Catholic	460	71.2
	Spiritualist	30	4.6
	Other	72	11.1
	No religion	84	13.0
Living arrangements	Live with relatives	359	55.1
	Live alone	79	12.1
	Live with other students	192	29.5
	Live in guesthouse	9	1.4
	Live in the student's house	12	1.8

*N= number of sample; % = percentage.

Table 2: Distribution of the 652 medical students classified as the absence or presence of depression according to the Beck Depression Inventory version II, from the region of Crajubar/Cariri Ceará, Northeast Brazil, in 2014

Depression classification	N	PC	Mean±SD*	Min-Max*
Without depression	464	71.2	4.6±2.9	0 – 10
Depression	188	28.8	16.9±6.4	11 – 54

* Scores obtained in the Beck Depression Inventory; SD = Standard deviation; Min-Max = Minimum value–Maximum value.

N = number of sample; PC = Prevalence coefficient.

Table 3: Distribution of the 652 medical students according to the question about suicidal thoughts (question 9) showing the average scores and minimum and maximum values obtained in the Beck Depression Inventory version II, from the region of Crajubar/Cariri Ceará, Northeast Brazil, in 2014

Variables	Categories	N	Mean ± SD*	Min-Max*
Suicidal thoughts	I have no ideas about killing myself	583	6.94 ± 5.32	0 – 32
	I have ideas but I would not execute them	59	19.19 ± 8.20	4 – 35
	I would like to kill myself	3	22.33 ± 11.93	14 – 36
	I would kill myself if I had the opportunity	1	54.00	-

* Scores obtained in the Beck Depression Inventory; SD = Standard deviation; Min-Max = Minimum value – Maximum value.

N = number of sample; PC = Prevalence coefficient.

Table 4: Results from the univariate and multiple logistic regression model, from the region of Crajubar/Cariri Ceará, Northeast Brazil, in 2014

Variables	Categories	N(%)	X ² (p)*	OR(IC _{95%})**	ORa(CI _{95%})***
Sex	Masculine	55(20.5)	15.321(<0.001)	1.00	1.00
	Feminine	133(34.6)		2.05(1.43-2.91)	1.83(1.19-2.82)
Religion	Catholic	122(26.5)	4.821(0.185)	1.00	NS
	Spiritualist	13(43.3)		2.12(1.00-4.49)	NS
	Other	22(30.6)		1.22(0.71-2.10)	NS
	No religion	27(32.1)		1.31(0.79-2.17)	NS
Marital Status	Single with partner or boy/girlfriend	86(26.4)	2.145(0.342)	1.00	NS
	Single with no partner or boy/girlfriend	89(31.8)		1.3(0.91-1.85)	NS
	Married/stable relationship	12(28.6)		1.12(0.55-2.28)	NS
Health	Poor	3(37.5)	51.876(<0.001)	2.66(0.62-11.38)	NS
	Reasonable	113(44.7)		3.58(2.50-5.11)	3.15(2.09-4.73)
	Good/Excellent	72(18.4)		1.00	1.00
Use tobacco	Not use tobacco	177(28.2)	2.535(0.111)	1.00	NS
	Use tobacco	10(43.5)		1.96(0.84-4.55)	NS
Uncertainty about the future	Not have	21(16.9)	45.091(<0.001)	1.00	1.00
	Little/medium	121(26.9)		1.81(1.08-3.02)	NS
	A lot	46(59.7)		7.28(3.78-13.99)	2.97(1.65-5.34)
Desire to change courses	No	101(21.6)	42.793(<0.001)	1.00	1.00
	Yes	86(47.5)		3.29(2.28-4.74)	2.51(1.63-3.86)
Social Relationships	Relates well and participates in social activities	71(18.1)	75.382(<0.001)	1.00	1.00
	Relates well but does not participate in social activities	88(39.8)		2.99(2.06-4.34)	1.96(1.27-3.04)
	Difficulties in relationships	26(78.8)		16.19(7.01-40.21)	11.40(4.32-30.14)
Leisure Activities	Always	35(14.2)	50.883(<0.001)	1.00	1.00
	Sporadically	85(32.4)		2.89(1.86-4.50)	2.45(1.49-4.04)
	Rarely	66(74.5)		5.45(3.34-8.88)	3.04(1.70-5.42)

* Pearson's chi-squared test (χ^2), variables which presented $p < 0.20$ were included in the univariate and multiple logistic regression model.

** OR = Odds Ratio, ***ORa = adjusted Odds Ratio.

CI 95% = confidence interval; N = number of sample; NS = Not significant.

DISCUSSION

The prevalence of depressive symptoms and associated factors in medical students in a northeastern region of Brazil was highlighted as a serious public health problem^{1, 4}.

The prevalence of depressive symptoms found was 28.8%, and the mean BDI-II score was 16.9 ± 6.4 (Table 2); the prevalence of depressive disorders in the general population is around 7% and depressive symptoms throughout life, around 12.6%^{2,3}.

These symptoms may also lead to disturbance in the functional and psychosocial lives of the individuals, and may pose a risk for major depressive disorders when not recognized and treated⁴.

It was observed that the higher the intensity of suicidal thoughts reported in question 9 of the BDI-II, the greater the average overall score found. Of the 10.34% of students who had some suicidal thoughts at the time of evaluation, the majority had scores for depression (BDI > 10) (Table 3).

Studies^{8,9,15-20} using the BDI with cut-off points similar to those used in this study, found that the prevalence of depressive symptoms ranged from 13.9% to 48.2%. This broad variation seems to be indicative of bias in the data collection, which hinders comparisons between studies, only allowing them to be treated as similar.

A higher prevalence of depressive symptoms has been reported in students in the basic module²¹. One study⁹ found that almost half (48.2%) the students had depressive symptoms, and of these, 20.7% had mild symptoms, 16.6% moderate symptoms, and 10.9% severe symptoms. The prevalence of these symptoms was higher among first (64%) and second year (62%) students, and lowest in fourth year students (33%)⁹.

In this study, it was found that the prevalence of depressive symptoms decreased as the course progressed, going from 31.1% in the basic module, to 27.8% in the intermediate module and 25% during the internship. The higher incidence of depression during the basic module could be related to changes in the routine of students entering medical school who receive a large amount of information, increased workload related to their studies and an abrupt change in the method of study²².

On the other hand, the findings of Melo-Carrilho et al²³ verified a significant increase in depressive symptoms in medical students attending the eighth semester (fourth year); this fact was associated with the beginning of the internship. In agreement, Costa et al¹⁵ estimated the prevalence of depressive symptoms in students during the medicine internship to be around 40.5%. Factors such as contact with disease and death, the aggression inherent in many interventions, difficulties in communicating bad news, in addition to the need for specialization at the end of the course may be responsible for this symptomatology⁸.

In the instrument used, the BDI-II, suicide is the most serious negative outcome of a depressive disorder. Studies^{20,24} have related suicidal thoughts

among medical students to; stressful events, severe depressive and anxiety symptoms, loss of control, personality disorder, and lack of stable relationships.

In the first analysis, using the chi-squared test, an association was found between depressive symptoms and the following variables: gender, physical health, uncertainty regarding professional future, desire to change courses, social relationships and leisure activities (Table 4).

After logistic regression, we found that women had a 1.83 times higher chance of developing depression compared to men (Table 4). Studies have shown that the female sex is a significant risk factor for depression both in university populations and in the general population.^{9,25-27}

The presence and severity of depressive symptoms have been linked to the early university years and the female sex⁹. Jadoon et al²⁵ verified that females had 2.01 more chances for depression than their male peers. Over the years the gap between activities considered male and female has narrowed, leaving responsibilities almost equivalent, but it has been observed that students of different sexes have a distinct response pattern to stress²².

Generally speaking, women in our society, besides accumulating academic and professional activities, have multiple roles such as motherhood, home and social responsibilities, as well as an increased predisposition to mood changes resulting from hormonal influences, which could partly explain the higher predisposition to depressive disorders in this population²⁸.

In the adjusted model, religion, marital status and tobacco use showed no statistical significance in this study (Table 4). In a study by Jadoon et al.²⁵, age, marital status, location, and household income were not determining factors in the prevalence of depression in medical students. However, in relation to smoking, some studies have shown higher chances for depression in tobacco users. Among the medical students smokers were 2.2 times more likely to have depressive symptoms than non-smokers²⁹.

Another study³⁰ on this issue verified that students who smoked regularly had significantly higher levels of depression. Our results demonstrated an odds ratio of 1.96 CI95% (0.84 to 4.55) for depressive symptoms in smokers, which was not statistically significant.

Vasegh & Mohammadi³¹ suggested that religious belief could be a possible protective factor for depressive and anxiety symptoms, but no statistical significance was found for depression.

The perception of physical health as reasonable compared to a perception of good health presented 3.15 times more chances of leading to depression (Table 4). Studies focusing on quality of life detected a significant deterioration in the vitality, physical and mental health domains in a prospective study on the quality of life related to the health of medical students^{32,33}.

Among the students who had a lot of uncertainty about their professional future; the chance of depression was 2.97 higher than in those

who had no uncertainty about their future (Table 4). In related studies^{32,33} it was suggested that an exhaustive workload, lack of time for physical activities and a decrease in leisure activities on a daily basis may be related to poor physical and mental performance.

The uncertainty about their professional future as well as the desire to change courses presented increasing occurrence as the student had doubts about what they aimed for in the future (Table 4). Studies^{34,35} evaluating the correlation between the degree of satisfaction of medical students with their course and the score obtained in the Beck Depression Inventory (BDI), verified that the greater the involvement and satisfaction of the student in their course, the lower the presence of symptoms of depression, with lower scores in the BDI.

The chances of depression in those who related well but did not participate in social activities were 1.96 times higher compared to those who were well-connected (Table 4). Those who claimed to have relationship difficulties presented 11.40 times more chances of depression compared to those who related well and participated in social activities. Those who sporadically and rarely participated in leisure activities were more vulnerable to suffer from depressive symptoms, the odds being 2.45 times and 3.04 times respectively for the development of the disease (Table 4).

Costa et al¹⁵ assessed students during internship and found that the variables with the greatest impact associated with the onset of depressive symptoms were: thoughts of leaving the course, emotional stress and regular academic performance.

The adjusted model was able to explain 23.54% of the diagnosis of depression in the study participants; a relatively high value considering depression is a multifactorial disease (Table 4). In addition to environmental causes, other factors such as temperament, for example neuroticism; genetics, for example individuals with first-degree relatives who have major depressive disorders have a 2-4 times higher risk of developing the disease than the general population; physiological factors such as endocrine disease and course modifications are involved in the development of symptoms².

Finally it was found that the prevalence of depression in medical students was higher than in the general population². In comparative studies it was found that the prevalence ranged from 13.9% to 48.2%. However, these studies^{8,9,15-20} were performed using previous versions of the BDI. The results expressed in tables 1-4 report similar prevalences although with a version of the instrument which is more current and more reliable regarding the composition and analysis of the results.

The suicidal thoughts referred to by question 9 in the BDI-II were directly proportional to the severity of depression according to the score obtained in this instrument.

On the other hand, even when diagnosed, the medical students did not seek professional help^{36,37}. Protocols²³ have been suggested for the

implementation of psychoeducation programs with the aim of enhancing adhesion of the individual to a treatment routine. Rethinking the role of the institution and the medical curriculum in causing, maintaining and preventing the detected symptoms could alleviate this problem^{15,20}.

In the region of Cariri, in the cities of Juazeiro do Norte - Ceará, Brazil and Barbalha, Ceará, Brazil, in the two medical schools studied there is a shortage of mental health services focused on psychiatric and psychological support to medical students.

Of the 100% of students who could have composed the sample, 63.7% actually participated in the research. This response rate is similar to other studies on universities^{25,20,36,38}.

From the point of view of limitations of the study, it appears that depressed patients may present significant somatic complaints and individuals with clinical disease often present more depressive symptoms. The uncertainty regarding their professional future, desire to change courses, relationship difficulties and level of participation in social and leisure activities could also be interpreted as resulting from the depressed state due to symptoms such as pessimism, low self-esteem, impaired decision-making capacity and feelings of isolation which may have corresponded to the moment of depression.

Another limitation concerning the use of the BDI-II, which aims to detect depressive symptoms and not the presence or absence of a depressive episode, is that it is not possible either to establish a temporal relationship between the onset of symptoms and entering university as the BDI- II only evaluates the presence of symptoms in the previous two weeks, or to establish causality between the associations found. These findings on the prevalence of depressive symptoms in medical students are expected to impact on conduct in the field of public health, seeing that imminent actions may be directed to take care of the professionals who look after people.

As emphasized by Atrash and Karpentier³⁹, health is often defined as a result of complex interactions, being something which is in constant motion and depends on regular attention and active maintenance. In particular, achieving good quality public health depends not only on the ability to make the right choices relating to the environment which determines the current state of health of a population, but also to make the right choices and take appropriate action to avoid foreseeable threats. On the other hand, translational medicine processes should be seen as essential for better handling the serious problems faced by the Public Health, such as depression, as it involves possible processes to improve the quality of life of the people involved.

In conclusion, it was found that in the region of Cariri, located in northeastern Brazil, the overall prevalence of depressive symptoms in medical students was 28.8%. The female sex, reasonable physical health, uncertainty over future career, desire to change courses, not participating in social activities and/or difficulties in relationships and

sporadic or rare leisure activity were associated with a higher risk of developing depressive symptoms. Such associations can also be considered as arising from depressive symptoms resulting in a negative perception of the facts and social isolation.

Rethinking the role of the institution and the medical curriculum in the causing, maintenance and prevention of the detected symptoms could be one solution to minimize the impact on the mental health of medical students.

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RESUMO

Introdução: a depressão, além de causar grande sofrimento psíquico, pode levar a prejuízos no desempenho acadêmico e nos relacionamentos sociais. **Objetivo:** estimar a prevalência de sintomas depressivos e sua associação com aspectos sociodemográficos e psicossociais em estudantes de medicina de uma região do Sertão Nordeste, Brasil. **Método:** a população foi constituída por 1024 estudantes do primeiro ao décimo segundo períodos do curso de medicina de duas escolas médicas do Cariri, Sertão Nordeste, Ceará, Brasil. Utilizou-se o questionário de caracterização sociodemográfica e o Inventário de Depressão de Beck versão II. **Resultados:** a prevalência encontrada nessa população para o diagnóstico de depressão foi de 28,8%. 652 (63,7%) cumpriram com todos os protocolos para permanência na pesquisa. Apresentaram impacto negativo na saúde mental dos estudantes no modelo ajustado de regressão logística: sexo feminino OddsRatio ajustado (ORa) (IC_{95%}): 1,83(1,19-2,82), saúde física razoável ORa (IC_{95%}): 3,15(2,09-4,73), incerteza quanto ao futuro profissional ORa (IC_{95%}): 2,97(1,65-5,34), desejo de mudar de curso ORa (IC_{95%}): 2,51(1,63-3,86), relacionamento social bom porém sem participação de atividades sociais ORa (IC_{95%}): 1,96(1,27-3,04), dificuldades de relacionamento ORa (IC_{95%}): 11,40(4,32-30,14) e raras atividades de lazer ORa (IC_{95%}): 2,45(1,49-4,04) ou esporádicas atividades de lazer ORa (IC_{95%}): 3,04(1,70-5,42). **Conclusão:** observou-se alta prevalência de depressão nos estudantes de medicina nesta região. Sexo feminino, saúde física razoável, incerteza quanto ao futuro profissional, desejo de mudar de curso, não participação de atividades sociais e/ou dificuldades de relacionamentos, esporádica ou rara atividade de lazer foram associados a maior chance de desenvolver sintomas depressivos.

Palavras-chave: depressão, estudantes de medicina, prevalência, transtorno depressivo, educação médica.