# Evaluation of the incidence of antidepressant use among medical students in the state of Alagoas

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#### ABSTRACT

This study aimed to determine the frequency of antidepressant use among medical students in the State of Alagoas, thus consisting of a prospective and cross-sectional study carried out in higher education institutions in the State of Alagoas that offer undergraduate medical education. Inclusion criteria were being enrolled and attending the course, from the first to the fourth year, and being 18 years old or older. The exclusion criteria were being in the fifth or sixth year of medical school; being younger than 18 years old, even if emancipated. Through a self-completed questionnaire (sociodemographic information, lifestyle, and Beck's Anxiety Inventory), 342 students were randomly interviewed. The data were typed, tabulated and analyzed. This study was approved by the Research Ethics Committee. All participants who participated read and signed the Informed Consent Form according to the criteria of resolution 466/12. Fifteen percent of the respondents use antidepressants and 85% do not use this type of drug. Even giving a low percentage, it is still worrisome and quite important to always address this issue and reformulate medical education in order to decrease the levels of stress and anxiety among students.

Keywords: Antidepressants, Medical students, Mental health, Anxiety disorder.

## INTRODUCTION

Becoming a physician is a professional achievement, often associated with confidence and respect from society for a better lifestyle and, most importantly, personal satisfaction with life<sup>1</sup>. However, medical training has long been associated with emotional distress and the prevalence of stress, anxiety, and depression in students<sup>1,2</sup>, which is driving medical students out of euthymia and into dysthymia and mania<sup>3</sup>.

Democritus defined euthymia as a state of equilibrium in mood and Seneca as a state of tranquility, a point of stability between depressed and euphoric moods<sup>4</sup>. Mania is a period of euphoria, extroversion, or irritability that is intense enough to interfere with a person's personal and professional life<sup>5,6</sup>. On the other hand, dysthymia is a long-term sadness, having symptoms that include loss of interest in normal activities, lack of hope, low self-esteem, lack of appetite, low energy, changes in sleep, and lack of concentration<sup>7</sup>. The distancing from euthymia leads the individual to seek drug treatment.

Studies show that college students are more prone to manifest mental disorders compared to the general population<sup>2,9,10</sup>. Anxiety disorder (AD) has a high prevalence among health students, more specifically among medical students<sup>9</sup>. According to the American Psychiatric Association et al.<sup>11</sup>, Anxiety disorders include disorders that share characteristics of excessive fear and anxiety (anticipation of future threat) and related behavioral disturbances.

The increased level of stress can lead medical students to act with strategies, often inappropriate, for compensation through fantasy, search for relief or escape<sup>2,11</sup>. However, regarding the search for relief from stressors, the use of psychoactive substances has become a frequent reality among medical students<sup>12</sup>. The literature reveals that the use of psychiatric drugs (antidepressants and anxiolytics) has increased in the last decades, especially antidepressants<sup>12,13</sup>. Antidepressants and anxiolytics are important and widely used in the treatment of ADs<sup>11,15,16</sup>.

The growth of scientific production regarding the mental health of medical students reveals a necessary concern concerning their illness, since the results of research show, in their majority, that the incidence of mental suffering among medical students is higher than in the general population<sup>2,9,10</sup>. Therefore, studies about the use of antidepressants in medical students are necessary

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and pertinent. Thus, this paper aims to determine the frequency of antidepressant use among medical students in the state of Alagoas.

# METHOD

# Study type

Prospective, cross-sectional study.

### Research location

Higher education institutions in the state of Alagoas that have a medical degree: Cesmac University Center (CESMAC); Tiradentes University Center (UNIT); Federal University of the State of Alagoas Aristóteles Calazans Simões Campus (UFAL), and Arapiraca Campus and the State University of Health Sciences of Alagoas (UNCISAL).

# Subjects

Students regularly enrolled from the first to the fourth year, older than 18 years old and enrolled in the selected educational institutions.

The students were chosen randomly, respecting the inclusion and exclusion criteria.

# Inclusion Criteria

To be regularly enrolled in and attending medical schools in the state of Alagoas, from the first to the fourth year, and to be 18 years old or older.

# Exclusion criteria

Being in the fifth or sixth year of medical school; being younger than 18 years old, even if emancipated.

# Sample

A total of 342 students participated in the survey. The non-probability convenience sampling technique was used to select the study participants.

## Assessment tools

The use of antidepressants and anxietyassociated symptoms was measured by a selfcompleted questionnaire consisting of two blocks of information. The first one, previously elaborated by the researchers, contained sociodemographic and lifestyle information, including the use or not of antidepressants. The second block of the questionnaire consisted of questions related to anxiety symptoms extracted from the Beck Anxiety Inventory (BAI), which is a self-report scale that aims to measure the intensity of anxiety symptoms. This scale was initially created by Beck et al.18 and adapted and validated for Brazil by Cunha et al., with good reliability and validity coefficients.<sup>19</sup> It consists of 21 items, among which the individual should point out, on a fourpoint scale, the level of severity of the symptom observed. Each question has four possible answers: absolutely not; slightly (it did not bother me much); moderately (it was very unpleasant), and severely (I could hardly stand it). The total score ranges from 0 to 63, allowing the verification of the intensity level of anxiety. The classification described in the BAI manual recommends that the anxiety level be classified as minimal (0-10), mild (11-19), moderate (20-30), or severe (31-63). The inventory is not intended to make a diagnosis of anxiety, but to determine the presence and magnitude of anxiety-related events.

# Statistical analysis

The measure of frequency and association of antidepressant use and its factors will be prevalence and prevalence ratio, respectively.

The chi-square ratio test was used to verify the statistical significance between the exposures and the outcome analyzed, antidepressant use or not.

The exposure factors, with a p-value < 0.20 in the univariate analyses, were included in the generalized linear model to be used in the multivariate analysis. Values of p < 0.05 were considered statistically significant and retained in the final model.

Based on the collected data, a new database was built with the following variables: age; institution of higher education; year of study; gender; if working; if living alone; if smoking; if consuming alcoholic beverages; if doing physical activity; if using antidepressants; how long using antidepressants; which antidepressants; why using antidepressants; if improving with antidepressants; who recommended antidepressants; if knowing why using antidepressants; and the items evaluated in the BAI.

Data were entered and tabulated in Microsoft Office Excel for Windows, version 2017, and analyzed in Statistical Package for the Social Sciences (SPSS) software version 20.0.

# Ethical principles

It was approved by the Research Ethics Committee (REC) of UNIT with CAE: 14364219.5.0000.5641, having opinion number 3,417,096 and approved on June 26, 2019.

The institutions authorized the research to be conducted on their premises. All participants who agreed to participate read and signed the Informed Consent Form (ICF) according to the criteria of resolution 466/2012 of the National Health Council, which ensures all ethical precepts.

# RESULTS

A total of 342 medical students from Alagoas State participated in this study, with a mean age of 22.91 years (SD=3.79). Table 1 shows the information related to the sociodemographic data of the students participating in the study.

In the present study, 15% (n=51) of the interviewed students reported using antidepressants and 85% (n=291) do not use these drugs. Regarding the prescribers of antidepressants, the highest prevalence was the prescription by Psychiatrists, with 76% (n=39), followed by another medical specialty (22%) and 2% by self-medication (n=1).

There were 74 reasons reported that led them to use antidepressants, in which 62.7% (n=32) students reported having only one reason; 29.4% (n=15) students reported having two reasons, and 7.8% (n=4) had three reasons. The reasons were: panic crisis (2); postpartum depression (1); social phobia (1); fear of the course (1); nighttime panic (2); personal and academic overload (1); generalized anxiety disorder (GAD) (36); minor depressive disorder (2); posttraumatic stress disorder (1); obsessive-compulsive disorder (1); bipolar disorder (2); personality disorder (1); binge eating disorder (1); insomnia disorder (1); depressive disorder (17); premenstrual dysphoric disorder (1) and panic disorder (2). Of all the reasons reported, the most prevalent was EDT accounting for 36 and the second most prevalent was depressive disorder.

#### Table 1

Sociodemographic profile of the research participants in the medical school of Alagoas State, Brazil, 2020.

Variable	N (%)
Sex	
Female	245 (71,6)
Male	97 (28,7)
Course year	
1st year	87 (25,4)
2nd year	78 (22,8)
3rd year	79 (23,1)
4th year	98 (28,7)
Age (in years)	
18 – 22	193 (56,43)
23 – 27	114 (33,33)
28 – 32	25 (7,31)
33 – 37	7 (2,05)
38 - 42	3 (0,88)
Works	
Yes	30 (8,8)
No	312 (91,2)
Lives Alone	
Yes	90 (26,3)
No	235 (68,7)
Did not answer	17 (5,0)
Physical activity	
Yes	234 (68,4)
No	107 (31,3)
Did not answer	1 (0,3)
Smoker	
Yes	16 (4,7)
No	325 (95)
Did not answer	1 (0,3)
Consumes alcoholic beverages	
Yes	235 (68,7)
No	106 (31,0)
Did not answer	1 (0,3)

Source: Survey Data, 2020.

The pharmacological classes used by medical students in the state of Alagoas are described in Table 2, and the selective serotonin reuptake inhibitor antidepressant (40.7%) had the highest prevalence in relation to the others. Regarding the time of use, 18% (n=9) used from 1 day to 1 month; 33% (n=17) used from 2 months to 1 year; 43% (n=22) used from 2 years to 20 years, and 6% (n=3) did not inform the time of use. Of those taking antidepressants, 90% (n=46) stated that there was an improvement in symptoms and 10% (n=5) had no improvement in symptoms. All survey participants who reported using antidepressants reported having knowledge of why they use antidepressants.

Regarding the students' anxiety level according to the BAI, it was possible to estimate the anxiety level, as represented in Graph 1.

Through the BAI, it was possible to evaluate the anxiety level of the participants, as shown in Table 3. In the total score of the questionnaire, there were 4,420 points for absolutely not; 1,654 for mildly; 916 for moderately and severely with 192 points.

## DISCUSSION

The medical curriculum involves a relatively large amount of time spent in classes, studies, and assessments, all of which can cause a certain increase in anxiety and stressors<sup>1,2,5</sup>. Stress during medical school is well known and studied in Brazil and abroad<sup>1,20,19,21</sup>. Thus, many students seek medication as a solution to reduce these stresses and even the possible mental disorders that may arise from these stressors<sup>20,22</sup>.

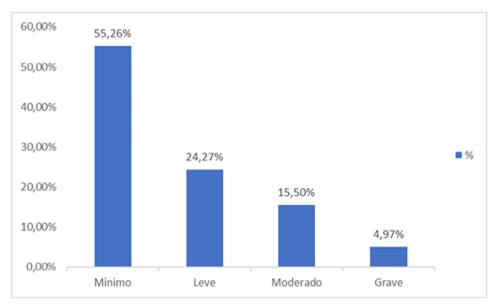
In this study, only medical students from the first to the fourth year (n=342) were investigated. The results revealed that the frequency of antidepressant use among medical students in the state of Alagoas

#### Table 2

Pharmacological class of antidepressants used by medical students in the state of Alagoas.

Class	Ν	%
Anxiolytic benzodiazepine/ benzodiazepines	5	9,3%
Triazolopyridine derivative antidepressant	1	1,9%
Dopamine and noradrenaline reuptake inhibitor antidepressant	5	9,3%
Antidepressant serotonin reuptake inhibitors	10	18,5%
Serotonin and norepinephrine reuptake inhibitor antidepressant	7	13,0%
Selective serotonin reuptake inhibitor antidepressant	22	40,7%
Tricyclic antidepressant	4	7,4%
Full	54	100%

Source: Survey data, 2020.



**Graph 1.** Percentage of anxiety level using the Beck Anxiety Inventory (BAI) Source: Research database, 2020.

#### Table 3

Results of the Beck Anxiety Inventory (BAI) of medical students from the state of Alagoas

	Absolutely not, N (%)	Mildly, N (%)	Moderately, N (%)	Severely, N (%)
Numbness or tingling	236 (69)	83 (24,3)	23 (6,7)	0 (0)
Feeling of heat	152 (44,4)	121 (35,4)	61 (17,8)	8 (2,3)
Tremors in the legs	252 (73,7)	57 (16,7)	30 (8,8)	3 (0,9)
Unable to relax	106 (31)	98 (28,7)	121 (35,4)	17 (5)
Fear that the worst will happen	119 (34,8)	107 (31,3)	87 (25,4)	29 (8,5)
Dizzy or lightheaded	227 (66,4)	81 (23,7)	28 (8,2)	6 (1,8)
Palpitation or Racing of the Heart	144 (42,1)	107 (31,3)	74 (21,6)	17 (5)
Unbalanced	270 (78,9)	57 (16,7)	12 (3,5)	3 (0,9)
Terrified	255 (74,6)	57 (16,7)	24 (7)	6 (1,8)
Nervous	62 (18,1)	139 (40,6)	109 (31,9)	32 (9,4)
Feeling of suffocation	250 (73,1)	52 (15,2)	34 (9,9)	6 (1,8)
Trembling hands	244 (71,3)	60 (17,5)	35 (10,2)	3 (0,9)
Trembling	252 (73,7)	68 (19,9)	21 (6,1)	1 (0,3)
Fear of losing control	194 (56,7)	84 (24,6)	49 (14,3)	15 (4,4)
Difficulty Breathing	239 (69,9)	62 (18,1)	37 (10,8)	4 (1,2)
Fear of dying	260 (76)	57 (16,7)	16 (4,7)	9 (2,6)
Scared	200 (58,5)	104 (30,4)	30 (8,8)	8 (2,3)
Indigestion or discomfort in the abdomen	145 (42,4)	108 (31,6)	75 (21,9)	14 (4,1)
Feeling faint	291 (85,1)	35 (10,2)	14 (4,1)	2 (0,6)
Flushed face	289 (84,5)	38 (11,1)	11 (3,2)	4 (1,2)
Sweating (not due to heat)	233 (68,1)	79 (23,1)	25 (7,3)	5 (1,5)

Source: Survey Data, 2020.

was 15%. Thus, it is verified that there was a low frequency of antidepressant use in the investigated population. In a specific medical school in São Paulo state, among 289 medical students participating in the survey, 33 (11.4%) said they use or had used antidepressants<sup>13</sup>. Sperandio and Ferreira found in their study about the prevalence of antidepressants and psychostimulants use in medical students at a university in the northwest of Paraná state that out of 96 participants, 45 used them<sup>23</sup>, thus, corroborating the present study.

The female gender (n=245) was the majority of the survey participants and those who use antidepressants, the majority were also women (n=40). Women have a higher prevalence of anxiety compared to men and in this study, it was possible to evidence such fact, being compatible with other results found in the literature<sup>13,24,26</sup>. However, Sperandio and Ferreira<sup>23</sup> disagree, as they identified a higher prevalence of male substance use among medical students in Paraná. However, there are more studies that indicate higher prevalence in women than in men, ratifying with the present study.

Our research only included students from the first four years, in this case, the students from the boarding school, which are the last two years of the undergraduate course, were excluded, because we chose to study students from the first four years and also because the students who are in the boarding school are spread across several different stages, making it a little more difficult to find them. The largest adherence in the research was from the fourth year, followed by the first, third, and lastly the second year. Therefore, when analyzing the sample, it was found that the fourth year (n=22) and the first year (n=14) were respectively the years in which students

stated they used antidepressants the most. The third year (n=9) and second year (n=6) were right after. Thus, the use of antidepressants is being used more in the extremes of the undergraduate years. It is known that a medical degree lasts six years, and stress levels tend to increase throughout graduation<sup>21,26</sup>. According to the literature, studies indicate an increase in anxiety levels when comparing the beginning of the basic course and the internship<sup>27,28</sup>, and that stress levels tend to increase throughout the undergraduate course; however, students who are beginning their academic training may already suffer the pressures of the course and present some anxiety symptoms<sup>26</sup>.

Regarding age, there was a heterogeneity of respondents. However, the age range 18 to 22 years was the most prevalent and when analyzing the age of those who use antidepressants, the highest prevalence was 23 to 27 years (n=27), 18 to 22 years (n=20) was second, and 38 to 42 years no one reported using them. Ribeiro et al.<sup>13</sup>, in their study at the Faculdade de Medicina do Estado de São Paulo exposed that the age group that most used antidepressants was 18 to 22 years old, with 54.5%.

For young people, academic life is an opportunity to live new experiences, including the distance from the family, living with other young people and dedicating much of their time to university issues<sup>10,29</sup>. Most of the students reported not living alone, and those who take antidepressants also do not live alone, which is a positive aspect, because some students need to be away from their families and friends due to the location of the university and become more vulnerable to psychological disorders<sup>20</sup>. Yusoff et al.<sup>30</sup> observed that even before entering medical school, the future students evaluated in their study presented high levels of anxiety, probably as a secondary or side effect of the admission process. Of the interviewees in this study, most do not work, and even those who use antidepressants do not have any job, thus having more time for studies and not having to divide tasks and, consequently, the stress that may arise due to graduation.

Anxiety encompasses a range of psychological, cognitive, physical, emotional, and personality factors<sup>31,32,33</sup>. Thus, it becomes pathological when it is an inappropriate response to a certain stimulus due to its intensity and duration<sup>11,15,25</sup> and drug intervention is required when it becomes pathological. Anxiety disorders usually impair the daily life of individuals,

since many stop performing routine activities for fear of crises or symptoms. The situations that cause anxiety are sometimes endured with great suffering and many activities require the participation of other people to be performed - which can affect health and decrease the degree of independence<sup>11,25</sup>.

Psychotropic drugs are used for anxiety treatment, and these are psychoactive substances that can be classified according to their chemical structure, biological target, behavioral effect or clinical use, acting directly on sensations, changing behavior, mood, perception or other mental functions<sup>16,25</sup>. The medical students in this study reported two pharmacological classes in the questionnaire: benzodiazepines (n=5) and antidepressants (n=49). Of the antidepressants, the subclasses were triazolopyridine derivative antidepressant (n=1); dopamine and noradrenaline reuptake inhibitor antidepressant (n=5); serotonin reuptake inhibitor antidepressant (n=10); serotonin and noradrenaline reuptake inhibitor antidepressant (n=7); selective serotonin reuptake inhibitor antidepressant (n=22) and tricyclic antidepressant (n=4).

Psychotropics, which are a subclass of psychoactive substances that act on the central nervous system, were the most used<sup>11,16</sup> and can be indicated as anxiolytics, sedatives and hypnotics, antidepressants, antipsychotics, mood stabilizers, anticonvulsants, and central nervous system stimulants<sup>16,24</sup>. Anxiolytics reduce anxiety and exert a calming effect, and hypnotics generate drowsiness and preserve the sleep state<sup>15,16</sup>. The present study is in agreement with the literature and the studies already done<sup>23,27,29,34</sup>, regarding the most used class of antidepressants, since the serotonin reuptake inhibitors are the most used, being recommended as first-line treatment<sup>31,33</sup>. Studies state that this is due to the fact that their action is selective and presents a more tolerable side effect profile<sup>34</sup>.

Treatment for anxiety encompasses both pharmacological and non-pharmacological treatment<sup>31</sup>, in which both must be present for a good prognosis<sup>31</sup>. Not to mention that early identification and referral to pharmacological and/or psychotherapeutic treatment have an impact on the development of anxiety symptoms, minimizing even the risk of suicide<sup>35</sup>. Regarding anxiety, studies with cognitive behavioral therapy focused on stress management have proven effective in preventing anxiety among risk populations, as well as non-pharmacological strategies such as physical activity and meditation<sup>11,36,37</sup>. In the present study, 68.4% did some type of physical activity, and the percentage should be closer to the total, since it has been proven the importance of physical activity both for the prevention and treatment of several diseases, but when it comes to mental health, it is a great ally<sup>38,39</sup>.

In the literature, several reasons for the beginning of antidepressant use are found, and when it comes to medical students, there are many reasons, because this public is widely researched<sup>1,25</sup>. In the current research, the main reason was AGD, followed by depressive disorder. Both depression and anxiety can be related to a variety of stressors during medical school, including the loss of personal freedom, the high level of demand for the course, the lack of time for leisure, the strong competition among colleagues and the contact with several patients<sup>40</sup>. During the course, the students' stress is increasing due to academic overload, interpersonal and emotional conflicts, such as situations of death and suffering experienced, especially in the last years of the course, in which the students have direct and continuous contact with patients. These factors can compromise health, leading to difficulties in social relationships and substance abuse such as psychotropic drugs<sup>24,40</sup>.

Anxiety may be a motivating factor for alcohol and other drug abuse<sup>21</sup>. Therefore, the variables smoking and alcohol consumption were assessed, since they are considered health risk behaviors<sup>20</sup>. Smoking was not prevalent among the students in this study, nor among the users of antidepressants, in which only one reported using one of the two. Nicotine is one of the substances present in cigarettes that may considerably increase anxiety<sup>41</sup>, and in review studies, both in animals and humans, nicotine is related to anxiety and a series of genes and nicotinic acetylcholine receptors were identified, which may be anxiolytic through GABAergic pathways or anxiogenic through serotoninergic pathways<sup>42</sup>. That is, smokers also had a higher prevalence of agoraphobia, TAG, social phobia, obsessive-compulsive disorder, panic disorder, and post-traumatic stress disorder. According to Valença et al., studies have shown a positive association between smoking and psychiatric disorders43.

Alcohol consumption is common among students<sup>8-25</sup>, and in the current survey, we detected that 68.7% reported using alcohol and 70.6% used it concomitantly with antidepressants, which is not recommended because drug interaction, depressant and anxiogenic effects of alcohol may occur, which may worsen anxiety and even lead to dependence<sup>26,27,29</sup>. Many individuals use alcohol to relieve anxiety symptoms and become more confident and independent in their routine activities, which require social contact<sup>9,12</sup>.

It is known that medical students have a higher prevalence of anxiety symptoms compared to the general population<sup>1,9,20</sup>. Therefore, this study used the BAI, which initially aims to measure the intensity of anxiety symptoms through four levels (minimal; mild; moderate, and severe)18,19 to evaluate the interviewees' symptoms. Thus, of the interviewees who reported using antidepressants (n=51) the highest prevalence in the BAI was moderate anxiety (n=17), i.e., even using antidepressants 33% still had anxiety symptoms. In general, moderate anxiety was the third, with 15.5%. Some level of anxiety can be beneficial for medical students, but after a certain degree, it can be painful, paralyzing or blocking thinking and behavior<sup>9,13,14</sup>, because anxiety is a feeling of imminent danger, a reaction to a real or imagined threat<sup>2,11,20</sup>. Rollemberg highlights that, of the students assessed by BAI at Universidade Federal de Sergipe, 25.87% had some degree of anxiety.

Numbness or tingling; feeling hot; trembling in the legs; inability to relax; fear of the worst happening; lightheadedness or dizziness; palpitation or racing of the heart; lack of balance; feeling of terror; nervousness; feeling of suffocation; trembling in the hands; feeling of trembling body; fear of losing control; difficulty breathing; fear of dying; hypervigilance; indigestion or discomfort in the abdomen; feeling faint; flushed face and sweating (not due to heat) are the symptoms assessed in the BAI to know the anxiety level of the students. Fainting was the symptom that most did not experience. Nervousness, on the other hand, was highly reported at the mild and severe levels, and the inability to relax was the most reported symptom at the moderate level.

Regarding those who use antidepressants, in the first year, the mild level (n=5) was the highest, in the second year, the mild (n=2) and moderate (n=2)levels were the highest incidences, in the third year, the level was minimal (n=4) and in the fourth year it was the moderate level (n=8). As for the severe level, only the third year did not have any and the fourth year (n=5) had the most.

Psychotropic drugs are the group of pharmacological agents most used by the general

population, often incorrectly and without prescription<sup>15</sup>. In the health area, their abuse deserves even more attention since access to psychotropic drugs is easier due to the greater familiarity with medical professionals<sup>24</sup>. In the present study, 76% of the antidepressants were prescribed by psychiatrists, and only 2% were self-medicated. The fact that a higher percentage of antidepressants were prescribed by physicians specialized in mental health shows the increase in the search for the medical specialty (psychiatry) today, since some only seek medical help in moments of crisis<sup>41</sup> or self-medicate. De Luna et al.<sup>24</sup>, reported that the majority (65%) of firstyear participants of medical students in a university in São Paulo claimed that they obtained the drug in use through medical consultation, 22% with friends or family, and 13% obtained it illegally. It is worth noting that all participants were aware of why they use antidepressants. Thus, we can see that they are well informed and clear about the drugs they use and, therefore, understand that treatment with a psychiatrist is the most appropriate<sup>1</sup>.

It is essential to educate the population and medical students themselves about mental health to combat stigma, creating a supportive culture, and making student mentoring and peer support more accessible for excellent life and professional satisfaction<sup>1</sup>. Thus, revisiting the medical school curriculum and the structure of student assessments would make it less stressful for students<sup>1,2</sup>.

As a limitation, the present study did not use the marital status variable to correlate with the other variables since it could help more to characterize the students. However, it can be stated that such a research design was able to achieve the objectives proposed by the study.

# CONCLUSION

In view of the data exposed, the present study could determine that the frequency of antidepressant use among medical students in the state of Alagoas is 15%, with the selective serotonin reuptake inhibitor being the most prescribed and used, explained by its pharmacological profile of greater safety and tolerability. The reason most often mentioned by students for taking these medications was SUI, followed by depressive disorder.

As with the results, females were the most prevalent in the use of antidepressants. Fourth-year

students were more engaged in the research and are the ones who use these medications the most, evidencing the relationship between increased stress and anxiety throughout the undergraduate years. Regarding age, young people aged 23 to 27 years old are the ones who use antidepressants the most.

There was no relation between employment status and the use of antidepressants. However, 32.6% reported not engaging in physical activity, one of the major therapeutic indications in the treatment of anxiety and depression. In contrast, 70.6% consumed alcoholic beverages simultaneously with antidepressants, which is not indicated by psychiatrists and may cause more damage to health. It is also worth noting that 2% have used these medications on their own, and 76% were prescribed by psychiatrists.

According to the BAI and its classification, among the students who use antidepressants, 33% still have moderate anxiety, somehow demonstrating therapeutic failure. Fourth-year students had the highest percentage of severe anxiety, reinforcing the relationship between the stressors experienced during training and the development of anxiety symptoms.

It can be concluded that the results obtained in this study are important and enable further research to obtain more in-depth information on the subject. Thus, it opens a new horizon regarding this very current theme in society, also revealing the need for a reformulation of medical education to reduce the levels of stress and anxiety among medical students.

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