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USE OF PSYCHOACTIVE SUBSTANCES AMONG MEDICINE STUDENTS FROM THE FEDERAL UNIVERSITY OF AMAPÁ, AMAZON REGION, BRAZIL, IN 2018

ORIGINAL ARTICLE

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ABSTRACT

Psychoactive substances, also called psychotropic substances, are products which have the ability to promote stimuli or sensory changes, influencing emotions and the level of consciousness of those who use them. The objective of this study was to analyze the use of psychoactive substances among medical students at the Federal University of Amapá (UNIFAP), Amazon region, Brazil, in 2018. A quantitative and

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qualitative cross-sectional study was used, which used a convenience sample, not probabilistic, of university students. At this university, among medical students, it was noted that the use of psychotropic drugs is mainly due to the use of alcohol and analgesics. In the medical context, due to the easier access to prescription drugs, their use is much wider in this audience of professionals and academics, and the use of such substances is sometimes hidden and there is a difficulty in talking about and seek assistance.

Keywords: Medical students, psychoactive substance, medicine.

INTRODUCTION

Psychoactive substances, also called psychotropic substances, are products which have the ability to promote stimuli or sensory changes, influencing emotions and the level of consciousness of those who use them. Their stimulation can be different from person to person, since, although organically similar, human beings have individual characteristics. In addition, factors that are usually determinant for the degree of sensory stimulation are the quantity and type of the psychotropic, in addition to the context in which it is used (BRASIL, 2017).

In Brazil, in addition to illicit substances (amphetamines, marijuana, cocaine, crack, heroin and others), there is a wide consumption of licit drugs, such as alcohol, tobacco and analgesics (BRASIL, 2017). Many believe that the use of these drugs is almost exclusive to the youth audience, however, erroneously, since the rate of elderly people who use them, in a chronic way, has increased (DINIZ et al., 2017).

Such substances can cause various types of reactions in the individual's nervous system, which can be depressing, causing a decrease in the activities of the nervous system, reducing important factors such as the ability to focus, attention and reasoning (alcohol, tranquilizers, heroin and others). They can also be hallucinogenic, altering the reality perceived by the senses (marijuana, LSD, and substances derived from natural products, such as mushrooms and plants). Stimulants are able to trigger nerve alterations capable of generating extrapolated euphoric moments - in addition to being

used as a resource to treat attention problems and neurological disorders - and to awaken the individual for a long time. Examples of these substances are cocaine, crack, tobacco, amphetamines and, widespread in the world, caffeine (BRASIL, 2017).

Alcohol, although it is a legal drug and commonly used in the social environment, has psychotropic abilities. Its use can induce individuals to show behavioral changes, and the intoxication of women by it usually occurs more quickly, in view of having higher amounts of fat, lower percentages of water and lower production of alcohol dehydrogenase (ADH)), an enzyme responsible for the degradation of alcohol in the body (SILVA et al., 2019). It is characterized as a risk factor for a series of injuries, such as those of an intentional nature - interpersonal violence, suicide - and unintentional, such as burns, intoxications, drowning, tuberculosis, cancers, liver disease, car accidents and several others. Of all the alcohol consumed in the world, about a quarter is not registered, coming from artisanal, adulterated or counterfeit manufactures (WHO, 2018). In Brazil, this rate is approximately 15% and the public that most consumes alcohol in an abusive way is the male, with the most prevalent age group being 18 to 34 years old (ANDRADE, 2020).

Smoking is characterized by being one of the main risk factors for numerous diseases, including the most varied types of cancers and cardiopulmonary diseases, and preventable cause of deaths. Worldwide, more than 7 million people die annually as a result of health problems caused by smoking and, of that total, Brazil adds about 150 thousand deaths. In 2018, the percentage value of smokers who were 18 years old or more was 9.3% in the total in the country. In the health sector, Brazil spends almost 40 billion reais a year on diseases derived from tobacco use (FIGUEIREDO et al., 2017; BRASIL, 2019).

The high consumption of analgesics in Brazil is strongly linked to the extremely high prevalence of chronic pain (CD) (about 41% of the population has this type of pain). The main cause of CD is usually the activity performed at work. For analgesic treatment, non-steroidal anti-inflammatory drugs, in addition to dipyrone and paracetamol, are the most prevalent treatment line. Among analgesics, we can also highlight the class of opioids, used to treat moderate and severe pain, being widely

used in the treatment of pain in cancer patients (BARROS et al., 2019). In Brazil, in 2015, it was found that about 4.5 million people had already used opiates in a non-prescribed manner at some point in their lives (BASTOS et al., 2017).

Among the drugs of abuse (drugs that were not properly prescribed by a qualified health professional), such as amphetamines, LSD, crack and cocaine for example, we can highlight marijuana - Cannabis sativa - for being used since the dawn of humanity and be the third most consumed drug worldwide, with alcohol and tobacco being the most used, respectively (VANJURA et al., 2018). Historically, in the 18th century, long before it became an illegal substance in the country, marijuana was produced on a large scale in Brazil, with the intention of using it, mainly, for making ropes on Portuguese vessels, generating profit and favoring the trade balance (PEREIRA et al., 2018). In Brazil, marijuana is the most consumed illicit drug, with around 7.7% of Brazilians between 12 and 65 years old having used it at least once in their lives (BASTOS et al., 2017). Its properties include psychotropic abilities, which can produce hallucinations and depressing effects on the nervous system. In addition, it is also sometimes used as a treatment for some pathologies (VANJURA et al., 2018).

The beginning of psychoactive drug use usually occurs in the age group of 12 and 24 years. The entry of students in universities around the planet usually happens in the middle of this age group, a factor that, due to the fact that the university represents a stage of transition and wide change in the life of the individual, coincides with the higher rate of the abusive use of psychotropics. Among the substances used among university students, alcohol and tobacco are confirmed as the most used respectively and, therefore, agree with the world classificatory pattern of use of psychotropics (OLASHORE et al., 2018). The use of psychoactive agents covers the male and female sexes, and such substances can trigger negative impacts on the personal and academic life of these students, due to absence from classes, delays and lack of attention (SANTOS et al., 2019). Nevertheless, legal drugs, such as alcohol, can be risk factors for these students, since the behavior and judgment of individuals can be negatively altered, leading to risky attitudes, such as having unprotected sex (culminating in it). , sometimes in possible contamination by the acquired

immunodeficiency virus - HIV - or unwanted pregnancy, in addition to other possible sexually transmitted infections), interpersonal violence and other problems (WHO, 2018).

One of the courses with the most disputed places in Brazil is Medicine. In order to have the chance to enter and become an academic in this area, the pre-university student needs comprehensive dedication to studies, in order to build and refine their knowledge for the university entrance exam. In the midst of this arduous process, many students often develop anxiety disorders, a lot of stress and, also, depression. The emotional demand, linked to family demands (often present) for approval are factors that can incite such disorders and impair the student's psychological health (SANTOS et al., 2017).

In view of the large number of factors that cause stress in the medical course, the cognition and psychological aspects of students are constantly affected, in addition to their physiological condition, triggering organic psychiatric problems and loss of quality of life. In order to understand the seriousness of these factors, it is necessary to have a broad understanding of them, in order to find the source of the problems to solve them (LIMA et al., 2016). Psychological stress is usually associated with negative academic effects, such as difficulty sleeping, use of psychotropic substances, exhaustion, decreased learning (and consequent negative impact on training), lack of empathy with patients and even suicidal ideation (MCLUCKIE et al., 2018). However, in order to obtain a more comprehensive picture of the problems, it is necessary to observe other factors involved with the student, such as the possibility of financial problems, relationships, lack of time, great responsibility, inadequate support and guidance in their training, frequent exposure to death and suffering of the students. patients and other complex circumstances (HILL et al., 2018). In addition to these problems, many medical students end up not seeking medical help as often as they should, failing to solve the problems that arise. In general, only about 8 to 15% of these students seek psychiatric assistance during their undergraduate course, even if they constantly suffer from such problems (VASCONCELOS et al., 2015).

AIM

To analyze the use of psychoactive substances among medical students at the Federal University of Amapá in 2018.

METHOD

Cross-sectional quantitative and qualitative study, which used a convenience sample, not probabilistic, of university students. For data collection, the sample included 204 six-year-old students from the medical course at the Federal University of Amapá (UNIFAP). Part I of the self-administered instrument validated in Portuguese was used "Drug Use Screening Inventory-Revised - DUSI-R" (DE MICHELI and FORMIGONI, 2002), developed to assess and identify the use abuse of psychoactive, legal and illegal substances, and that measures the use of 13 psychoactive substances in the last month. The application took place via an online form and the data obtained were organized and tabulated in Excel spreadsheets, part of the Microsoft Corporation's Office package.

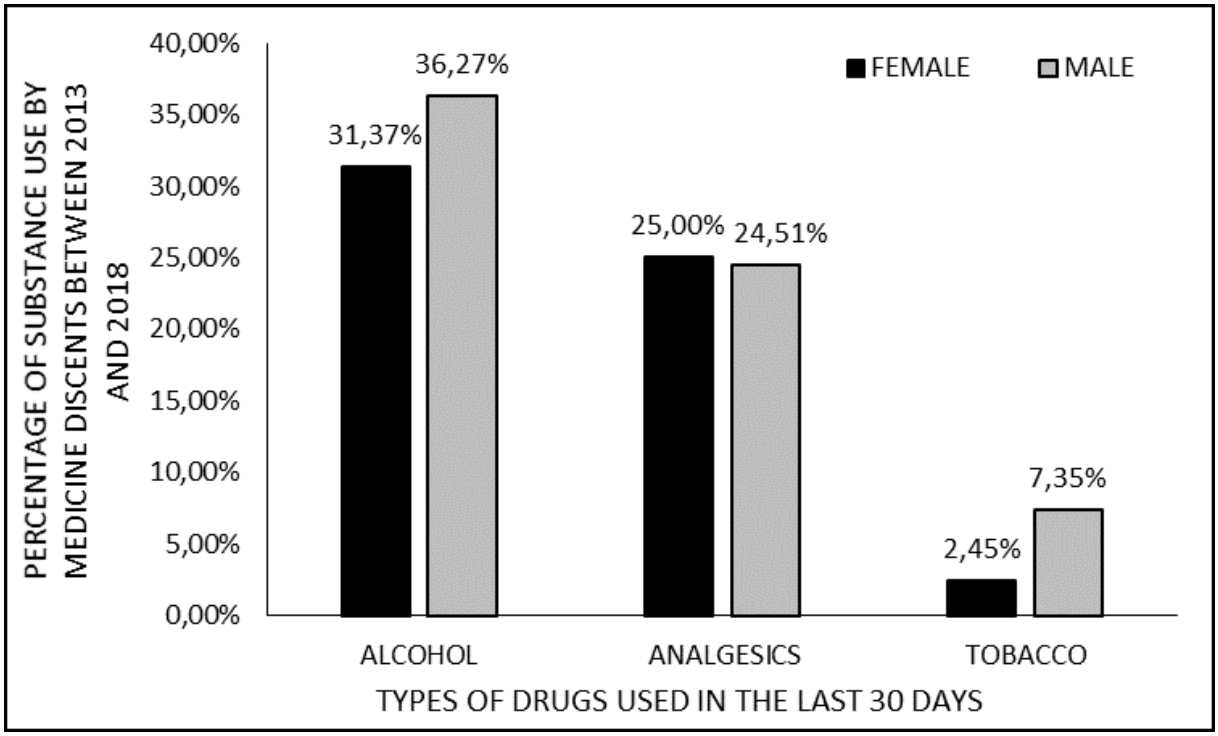
The project was submitted to and approved by the Research Ethics Committee of Brazil (CEP) (CAAE 89616818.2.0000.0003), according to the "Plataforma Brasil" protocol, following the ethical principles and complying with the ethical considerations set out in resolution 466, of December 12, 2012, the National Health Council (CNS).

RESULTS

The analysis shows that the main substances used by all classes were alcohol (67.65%), analgesics (49.51%) and tobacco (9.80%). The only psychoactive substance that is consumed by the majority is alcohol.

The data show the use of psychoactive substances in the last thirty days by medical students between 2013 and 2018, by gender and types of substances (Figure 1). The use of alcohol and tobacco is higher among male students (36.27% and 7.37%, respectively), and the use of analgesics is slightly higher among women (25%).

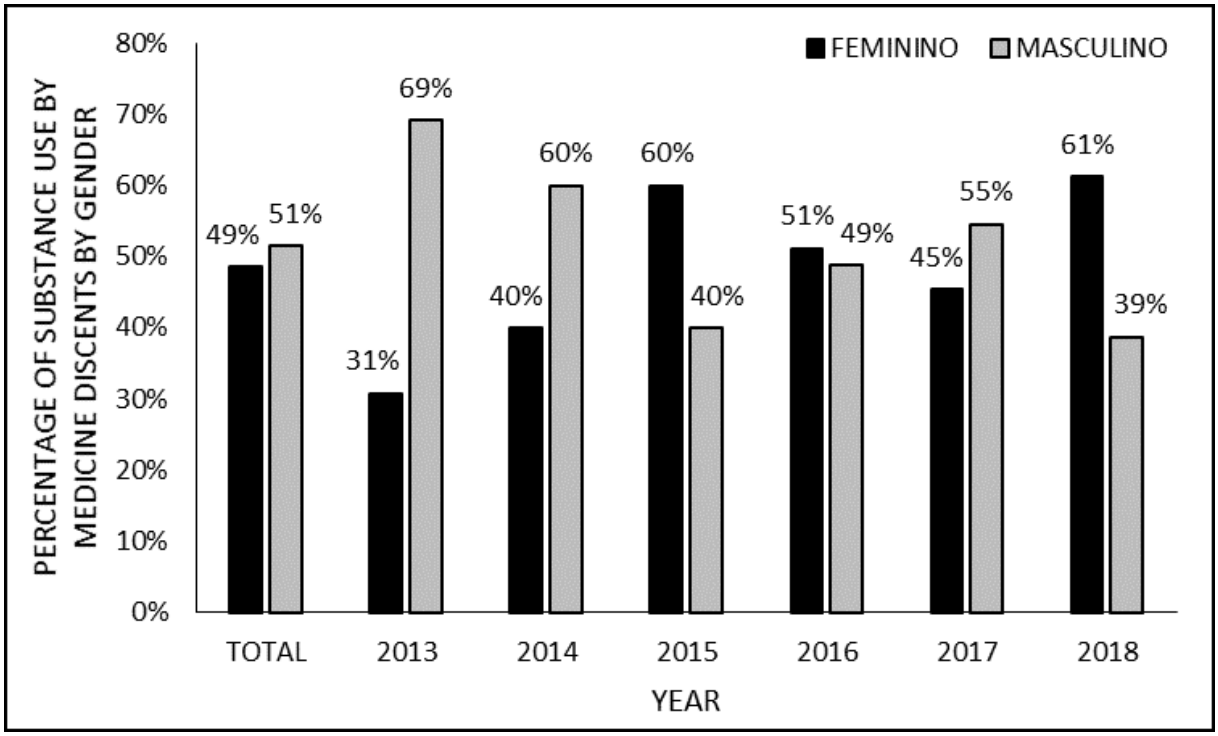
Figure 1 Shows the use of psychoactive substances in the last thirty days by medical students between 2013 and 2018, by gender and types of substances.



Source: Produced by the authors with research data.

Regarding the percentage and types of psychoactive substances used in the last thirty days by medical students between 2013 and 2018, by gender (figure 2), in men the number is slightly higher (51%) than in women (49%). There is an annual variation that shows this almost equality.

Figure 2 Shows the types of psychoactive substances used in the last thirty days by medical students between 2013 and 2018, by gender.

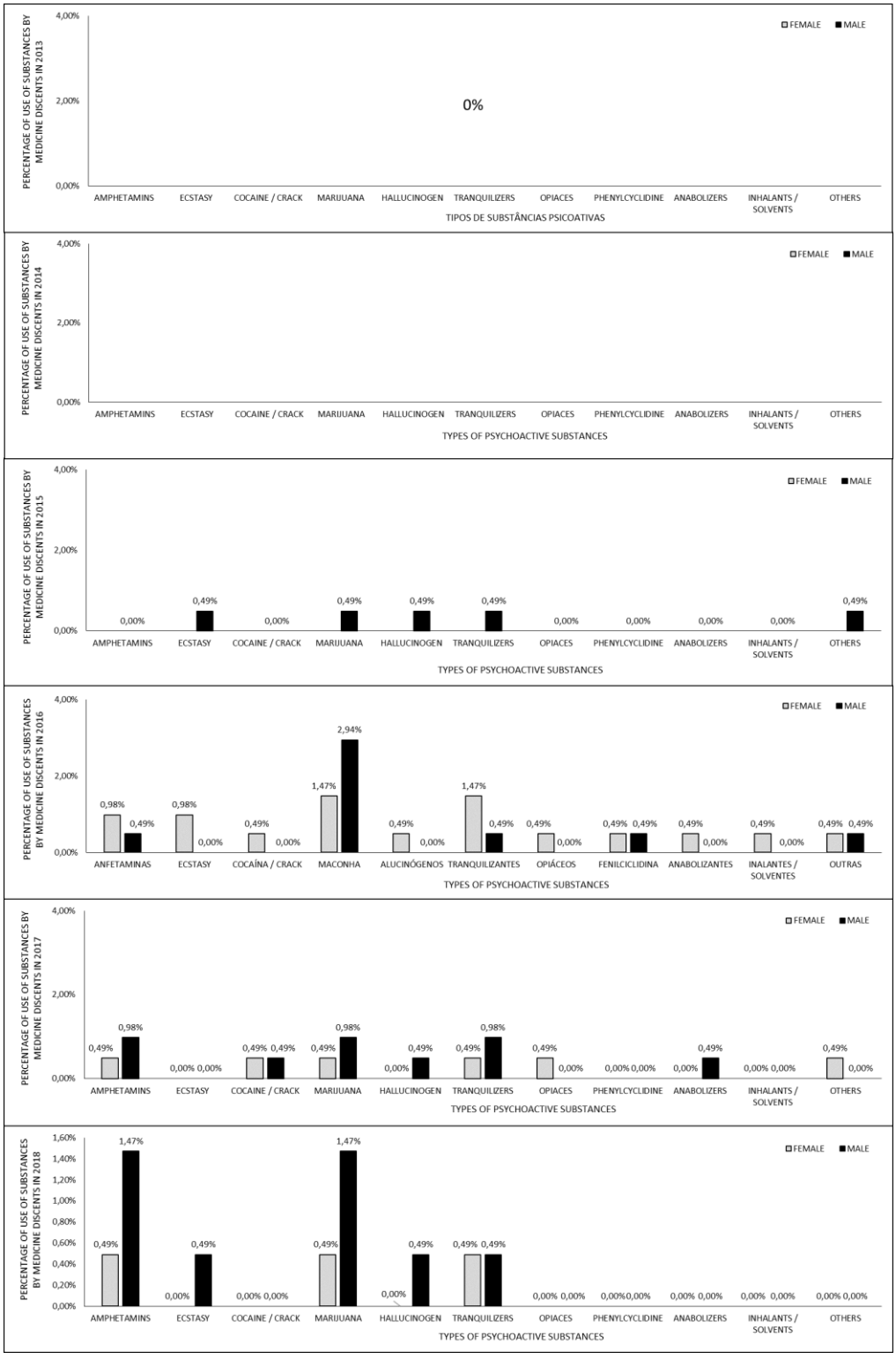


Source: Produced by the authors with research data.

Figure 3 shows the types of psychoactive substances used in the last thirty days by medical students between 2013 and 2018, by year and by gender. In older classes (2013 and 2014) there is no declared use of the described substances. The 2015 class includes the use of ecstasy (0.49%), marijuana (0.49%), hallucinogens (0.49%), tranquilizers (0.49%), and others (0.49%), all by the male gender. In the class of 2016 the data show the use of all the substances described. This year the use of amphetamines (women 0.98% and men 0.49%), ecstasy (women 0.98%), cocaine / crack (women 0.49%), marijuana (women 1.47% and men 2.94%), hallucinogens (women 0.49%), tranquilizers (women 1.47% and men 0.49%), opiates (women 0.49%), phenylcyclidine (women 0.49% and men 0 , 49%), anabolics (women 0.49%), inhalants / solvents (women 0.49%) and others (women 0.49% and men 0.49%). In 2017, amphetamines (women 0.49% and men 0.98%), cocaine / crack (women 0.49% and men 0.49%), marijuana (women 0.49% and men 0 , 98%), hallucinogens (men 0.49%), tranquilizers (women 0.49% and men 0.98%), opiates (women 0.49%),

anabolics (men 0.49%) and others (women 0.49%). In 2018 the declared psychoactive substances were amphetamines (women 0.49% and men 1.49%), ecstasy (men 0.49%), marijuana (women 0.49% and men 1.47%), hallucinogens (men 0 , 49%), and tranquilizers (women 0.49% and men 0.49%).

Figure 3 Shows the types of psychoactive substances used in the last thirty days by medical students between 2013 and 2018, by year and by gender



Source: Produced by the authors with research data.

DISCUSSION

In view of the abrupt change in life and insertion in the university social environment, the academic goes through a process of psychological transformation. In addition, other contributing factors to this organic and behavioral modification are derived from the daily stress of graduation. Aspects such as the vast collection of comprehensive responsibilities (which increase with the course), anxiety, exhaustion, distance from the family (for academics from other locations and even for those who continue to live with their families, because the immense amount of content to be studied ends up depriving moments of fraternization and leisure) incur the greatest possibility of using psychoactive substances, especially alcohol (DELFINO et al., 2018). The use of psychotropics by physicians, medical students and health professionals in general is common, since a considerable portion makes or has already used these substances (TALIH et al., 2018).

Although, according to studies, women end up starting substance use earlier (with the use of marijuana, opioids, anxiolytics and others), the male gender predominates in relation to the chronic use of alcohol and tobacco, and, by itself only, the item “male sex” is linked as a risk factor for the use of psychoactive substances (FERNANDES et al., 2017). In relation to factors predisposing to the use of psychotropic drugs, it is reported that the participation of students in academic centers and income exceeding 40 minimum wages (about 92% of students who fit this item use alcohol, in addition to approximately 39% use illicit drugs) make more use of such substances (TRINDADE et al., 2018).

In studies carried out with comparisons between some universities in the southeast and northeast, the pattern of consumption of the main psychotropic substances by university students was quite similar at the gender level. In the sample in question, the greatest use of alcohol and marijuana occurred by men, with 74.5% and 10.4% respectively, compared to 69.8% of alcohol use and 7.9% of female marijuana. (TRINDADE et al., 2018). Over the course of the course and its consequent advance of difficulty and demand, the use of psychoactive substances also tends to increase,

since stress, anxiety, exhaustion and many other negative factors also increase, leading to a more accentuated use of these.

Already considered as risk factors for the use of psychotropic drugs, the rate of use of illegal substances is higher in men (FERNANDES et al., 2017). In order to improve their academic performance (keeping them awake, improving their mood and memory, as well as improving their ability to concentrate and consequently learn) many medical students use drugs such as ritalin (methylphenidate hydrochloride) and amphetamines, both stimulating drugs of the nervous system. However, although they rely on the benefits of these drugs to improve their performance, there are countless negative consequences of this use, such as increased blood pressure to dangerous levels, euphoric sensation, tachypnea (increased breathing rate) and other organic implications. In a study carried out at Babol University of Medical Sciences, it was found that, of the sample of 49 medical students who used stimulant drugs, 29 of them were male, representing a total of approximately 59.2% of the sample value (FALLAH et al., 2018).

The use of psychoactive substances among medical professionals and medical students is comprehensive, and this use may be linked to the extreme educational and professional demands. In view of the wide access to the most varied drugs available, there is a high rate of substance use prescribed by doctors and medical students, since physical exhaustion and the ability to depend on these drugs culminate in their wide use. In addition, although there are techniques that can track the use of such drugs, there is a great difficulty in admitting their use and reporting that a colleague goes through this situation. Thus, the general use of these substances occurs widely (DUMITRASCU et al., 2014).

CONCLUSIONS

In view of the change in the social environment, upon entering the university, the academic goes through a series of psychic transformations, which are influenced by the academic environment and the interpersonal interactions it provides. In this regard,

the consumption of alcohol and some psychoactive substances, such as marijuana, can be encouraged.

Nationally, pre-university students face great challenges to enter the medical course, since their places are very disputed and it is necessary a great dedication to studies in order to be approved. Because of such difficulties, many end up developing anxiety, stress and psychic disorders.

Due to the numerous demands and responsibilities of the medical course, several negative factors end up being triggered in the student's life, such as anxiety, stress, exhaustion, difficulty sleeping and other organic problems.

In order to prolong hours of study and concentration in the activities of Medicine, many academics use illicit psychoactive substances to increase their performance, however, they can obtain countless negative physiological consequences because of this.

At the Federal University of Amapá, among medical students, it was noted that the use of psychotropic drugs is mainly due to the use of alcohol and analgesics. However, even in a small part of the sample, other substances were also used, such as tranquilizers, tobacco, ecstasy, cocaine, crack and others.

The predominance of the use of alcohol and tobacco is male, corresponding to the world parameters, since the item "male sex" is considered a risk factor for the use of psychoactive substances. However, it is noted that the use of painkillers is higher among females, and as for other substances - mainly marijuana - the rate of use is similar.

In the medical context, due to easier access to prescription drugs, their use is much wider in this audience of professionals and academics, and the use of such substances is sometimes hidden and there is a difficulty in talking about and seek assistance.

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