Levels of substance use among young brazilian adults during the pandemic period by COVID-19

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ABSTRACT
The pandemic caused by the novel coronavirus has brought with it several challenges not only the emergency development of pharmacological measures to cope but also a unique scenario of health, political, economic, and social crisis, not to mention possible effects that are yet to emerge. Given this scenario, the objective of this study was to evaluate the impacts of Covid-19 on the behavior of alcohol and medication use of young Brazilian adults between 18 and 30 years of age in the pandemic period from March 2020 to March 2022. To this end, an online study was conducted in which a questionnaire was applied with sociodemographic questions and questions about COVID-19 as well as, to know the levels of alcohol use, the AUDIT-C was used, followed by questions about the consumption of anxiolytics, hypnotics, and analgesics. Results: The study included a sample of 247 people, mostly women from the southeast region of the country, with socioeconomic levels A / B. As for COVID-19, participants signaled difficulty in following online activities during the pandemic period as a whole (38%); in the same way that anxiety due to isolation during the entire pandemic period was observed in 41.7% of the sample; nervousness or restlessness was also observed by isolation mainly during the first pandemic year by 22.7% of the sample and stress was observed throughout the pandemic period by 43% of the sample. Regarding the use of substances during the pandemic, it was observed that most participants did not use anxiolytics (60.7%) or hypnotics (72.1%), while a significant portion used analgesics or muscle relaxants (58%) prescribed (12.2%) or not prescribed (45.8%). Regarding alcohol consumption, use was reported by 16.6% of the sample in the first pandemic period and an increase to 19.8% considering the entire pandemic period.

Keywords: COVID-19, Pandemic, Substance use.

1 INTRODUCTION

Originating in December 2019, what began as a possible scenario of pneumonia of unknown etiology in patrons of a seafood market in Wuhan - China, Covid-19 spread rapidly around the world from the Chinese territory. Its widespread is also attributed to genetic diversity and the abundant recombination capacity of the viral genome (Munster et al., 2020; Chen et al., 2020). The challenges imposed on Brazil in the context of the pandemic go beyond measures to combat the new coronavirus if analyzed from the perspective of a complex period of enormous vulnerability (Bordiano et al., 2022). The lack of national coordination during the pandemic has contributed to a heightened sense of

uncertainty and lack of trust in authorities, as well as a lack of access to adequate prevention and health care (Ventura and Reino, 2021; Wang et al., 2020; Li et al., 2020; Henry & Vasconcelos, 2020; Assiri et al., 2023; Alpino et al., 2020).

In addition to the aggravation of pre-existing psychological disorders, the context of isolation and the possibility of contamination provoked negative psychosocial repercussions to favor the development of new conditions such as panic syndrome, anxiety, and depression (Pavani et al., 2021). The literature shows that the deprivation of physical/social contact and breakdown in routine were factors that generated stress. The circumstances provided a greater continuous state of alertness, since psychotherapeutic access was and is heterogeneous in different regions of Brazil. These are factors that when added to the helplessness in the face of such a health and political crisis, as well as the lack of rapid and effective measures for the preservation of the population, intricate the situation faced by Brazilians (Pavani et al., 2021; Castro de Araújo & Machado, 2020; Barreto et al., 2020)

Regarding emotional health, self-esteem represents feelings of self-worth possibly learned through internalization or introjection of the experiences of appreciation performed by others and it is believed that interaction with peers can be a predictor factor in its development (Bandura, 1982). The stability of self-esteem is related to the magnitude of fluctuations in feelings of self-worth in short periods, and while it appears to relate positively to effective coping mechanisms and higher quality of life, the more unstable the individual's self-esteem, the more intense their responses to external events are; in the same way that their depressive symptoms can be aggravated and/or triggered in adverse scenarios (Viscardi & Correia, 2016).

Concerning substance use, according to the III National Survey on Drug Use by the Brazilian Population coordinated by the Oswaldo Cruz Foundation (Bastos et al., 2017), 3.2% of Brazilians used illicit substances in the 12 months before the survey. This percentage is much higher among men: 5% (women = 1.5%) and also among young people: 7.4% of people between 18 and 24 years old had used illegal drugs in the last 12 months before the survey. The most commonly used illicit substance throughout life was marijuana (7.7%) and secondly powder cocaine (3.1%). Another fact to be mentioned refers to the use of opioid analgesics and benzodiazepines. It was observed that in the 30 days before the research these substances were used in a non-prescribed way, or used differently from that recommended by the doctor, by 0.6% and 0.4% of the Brazilian population, respectively. About legal drugs, if on the one hand tobacco consumption seems to be decreasing (13.6% used it in the previous 30 days and 33.5% reported having used it at some point), other emerging forms of tobacco use came to the fore with the increase in the use of electronic cigarettes and hookahs in the last 30 days (34% in the age group of 18 to 30 years). Regarding alcohol use, more than half of the Brazilian population aged 12 to 65 years reported having ingested alcohol at some point in their lives. Around

30.1% mentioned having drunk at least one dose in the 30 days before the survey and approximately 2.3 million people met the criteria for alcohol dependence in the previous 12 months.

During the pandemic, data from the Instituto de Medicina Integral Professor Fernando Figueira (IMIP) show an increase in marijuana consumption by 17.2%, cocaine by 7.4%, and benzodiazepines by 12.7%. Regarding alcohol consumption, the increase was 13.1%, slightly below the world average of 13.5%. The study entitled "COVID-19 Monitoring Brazil", conducted by the Federal University of São Paulo in conjunction with the State University of Rio de Janeiro, showed an 18% increase in alcohol consumption by the Brazilian population, while the use of marijuana and cocaine increased by 8.3% and 6.5%, respectively.

Given this scenario, this study aimed to evaluate the consumption of alcohol and anxiolytic, hypnotic, and analgesic/muscle relaxant medications prescribed or not during the pandemic period among young Brazilian adults aged 18 to 30 years.

2 METHODOLOGY

This study was submitted to and approved by the Research Ethics Committee of UNIFESP Nº.146171/2021.

Participated in this online study, 247 people who were invited to participate through social media (email, WhatsApp, Instagram, Facebook) by which they received a Google Forms form containing all the questionnaires, as follows.

The sociodemographic questionnaire developed by the authors of the research contains questions such as age, gender, education, region of the country in which they live, and economic situation (ABIPEME questionnaire), to evaluate the personal data of the participants. The impact of the pandemic on the personal lives of the participants was estimated through 10 questions also elaborated by the authors.

To evaluate alcohol consumption, the AUDIT-C was applied, a reduced format instrument of the AUDIT (Alcohol Use Disorders Identification Test, WHO, 1990), which consists of three questions based on the frequency of alcohol use and the concept of standard dose and margin of use from 0 (never) to 4 (4 times or more per week). Its objective is to contribute to the identification of possible abusive consumption patterns or dependence; The higher the score, the higher the pattern of alcohol risk consumption. The AUDIT-C score is made on a scale from 0 to 12 points so that any question of the instrument has five answer options, allowing a score from 0 to 4 in each. For men, a score from 0 to 3 is considered low risk; between 4 and 5 points, moderate risk; between 6 and 7 points, high risk and from 8 to 12 points, severe risk. For women, scores from 0 to 2 are considered low risk; between 3 and 5 points, moderate risk; between 6 and 7 points high risk and between 8 to 12 points severe risk.

Subsequently, questions were used regarding the use of anxiolytic, hypnotic, and analgesic drugs (and muscle relaxants), prescribed and non-prescribed, used specifically during the pandemic period.

It is worth noting that all the questions asked the participant to report their experiences related to the pandemic period, separated between the first period (from March 2020 to March 2021) and the second period (from March 2021 to July 2022), as well as the period of the pandemic as a whole.

3 FINDINGS

The sample of the present study was 247 people, composed mostly of women (71.7%) with a mean age of 25.4 years (SD=3.06), residents of the Southeast region of Brazil (70%), with complete higher education (37.7%) or incomplete (30.4%). Most participants belonged to classes A-B (52.2%) according to ABIPEME criteria. Participants reported difficulty tracking online activities during the first pandemic year (34.4 percent), and 38 percent mentioned having difficulties during the pandemic as a whole. As for social isolation, 29.6% reported episodes of anxiety in the first period and 41.7% reported episodes of anxiety throughout the pandemic. Regarding nervousness or restlessness, also due to isolation, 22.7% mentioned these symptoms during the first year; As for stress, 43% experienced these symptoms throughout the pandemic period. There was a greater demand for psychological counseling in the second year of the pandemic, by 27.1% of the participants. As for COVID-19, the majority of the sample did not contract the disease (57.1%) and did not lose close people (74.1%). The negative impacts of the pandemic period were observed by most participants (89.5%). On the other hand, 64.8% also mentioned positive aspects of the pandemic, such as being closer to family.

Regarding the use of substances, the use of different substances during the pandemic was verified and it was observed that most participants did not use anxiolytics (60.7%) or hypnotics (72.1%), while a significant portion used analgesics or muscle relaxants (58%) prescribed (12.2%) or not prescribed (45.8%). As for alcohol consumption, consumption was reported by 16.6% of participants in the first period, 13.8% also used it in the second period, and 19.8% of participants mentioned having drunk throughout the pandemic period. It was also possible to see that there was no increase in alcohol use in a significant portion of the sample (49.8%) between the first period and the second period. The median of the AUDIT-C scale was 3 for both females (SD=2.78) and males (SD=2.66).

4 DISCUSSION

Based on the results obtained, it can be stated that the sample of the research in question was composed predominantly of women, with a high level of education and income.

The analysis of substance use during the pandemic points to a significant portion of participants taking painkillers and muscle relaxants, as opposed to using anxiolytics and hypnotics. Muscle relaxants provide muscle relaxation and pain relief, which in individuals subjected to a lot of stress can help reduce muscle tension associated with such a mental state (VanTulder et al., 2003; Cashin et al., 2023). Stress can cause chronic muscle tension, leading to headaches, neck and shoulder pain, and back pain (Cashin et al., 2023). In the context of the pandemic, access to regular and quality therapy, regular physical exercise, alternative relaxation techniques, and the possibility of lifestyle change were cut off from the population that respected the virus containment measures, which may have directly influenced the effects of stress felt by the body, leading to the non-prescribed use of analgesics and muscle relaxants.

Regarding alcohol consumption, higher use was observed by the sample in the first year of the pandemic and during the pandemic as a whole. With increased stress, anxiety, and uncertainty caused by the pandemic, the escape from tension and negative emotions through alcohol is present in several places in the world (Henrique & Vasconcelos, 2020). Work overload and lack of contact were also influential factors in these aspects, especially in countries where social isolation measures and forty were imposed.

The results also showed that there was a non-significant difference between genders in the AUDIT-C score, however, the interpretation of the data in question indicates moderate risk consumption for women while for men the consumption is low risk. The onset of substance use disorder can be influenced by several factors such as biological, psychological, and social. In general, women are more susceptible to the negative effects of alcohol for biological reasons, for example, since they tend to have less water in their bodies and fewer metabolic enzymes from alcohol, which predisposes them to the scenario of greater and faster absorption of the substance. In addition, there is evidence of increased liver damage, cancer risk, and cardiovascular disease in females (NIDA, 2021). Regarding social and psychological factors, it is of great relevance the greater propensity of stigmas and social pressure related to alcohol on the part of women, which can hinder the search for help and treatment. There is still the scenario in which women, in addition to being more overwhelmed, are still more likely to go through traumatic events, such as sexual abuse and domestic violence, which through coping mechanisms of adverse situations has the excessive consumption of alcohol (Roberts et al., 2018).

5 FINAL CONSIDERATIONS

This study aimed to evaluate the consumption of alcohol and anxiolytic, hypnotic, and analgesic/muscle relaxant medications prescribed or not among Brazilians aged 18 to 30 years during

the Covid-19 pandemic during pandemic period. Thus, the result was a sample composed mostly of women with a high level of education and income. Even with low contamination and loss of close people due to the disease, a significant portion of the total sample indicated negative impacts on their lives, such as difficulties in adapting to the distance modality, difficulties in dealing with social isolation, stress, and anxiety. On the other hand, a portion of the sample reported positive aspects of the pandemic, such as being more time with the family, being at home longer, being able to follow the activities of the children, and having a less hectic life. During the pandemic period, there was a significant increase in the use of painkillers and muscle relaxants, both prescribed and non-prescribed, as well as higher alcohol consumption in the first year (March 2020 to March 2021). Women had a higher risk of consumption when compared to the parameters established by the World Health Organization.

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