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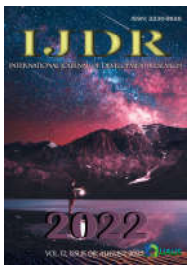

RESEARCH ARTICLE OPEN ACCESS

ASSESSMENT OF DEPRESSIVE AND ANXIOUS SYMPTOMS IN MEDICAL STUDENTS IN SOCIAL ISOLATION DURING THE SARS-COV-2 PANDEMIC

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ABSTRACT

Introduction: Social isolation has been a major contributor to the worsening mental health of medical students. ***Objective:*** toevaluate the mental health of students during the pandemic. ***Materials and methods:*** an online questionnaire was applied to assess sociodemographic data, habits, anxiolytic and antidepressant medications, and depressive and anxious symptoms from the Hospital Anxiety and Depression (HAD). Kolmogorov-Smirnov normality tests will be performed for numerical variables, as will the chi-square test for categorical variables and ANOVA for numerical variables. A p value of up to 0.05 was considered significant. ***Results:*** 573 students answered the questionnaire, being 391 (68.2%) female, with a mean age of 23.7 years, the majority living in Ceará and doing predominantly the 6th and 7th semester of the medical course. ***Discussion:*** There were no significant changes for the majority in relation to alcohol use, tobacco use, use of psychoactive drugs and levels of anxiety and depression while in isolation, however changes in sleep quality and changes in the level of physical activity were noted and, therefore, should be targets to be worked on in this population for better promotion of their mental health.

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INTRODUCTION

In December 2019, the first cases of SARS- CoV-2 associated pneumonia appeared in China[1]. This new variant has begun to spread, rapidly, in the world, due to transmission occurring by physical contact or by droplets from infected person[2]. Despite being less lethal than other species, such as SARS-CoV and MERS-CoV, the Covid-19 motivating strain has a greater ability to spread[3]. This allowed for the pandemic stage. Regarding symptomatology, there is a high prevalence of fatigue and respiratory distress after infection[4]. After six months of infection, for example, we still see fatigue, muscle weakness, difficulty sleeping, anxiety, and depression[5]. This has created an impact in various areas and especially on people's mental health. There is a well-established relationship between SARS-CoV 2 infection and the development of psychiatric symptoms[6] and worsening of their symptoms in people who already had previous pasiquiatric disorders, although heterogeneously[7,8] . The specific impact among young people stands out. There is evidence that several psychiatric disorders have emerged or worsened their conditions at the onset of confinement, further contributing to deterioration of their mental health in their productivity[9].

Especially, college students have a high prevalence of mental health harms[10]. Thus, it is essential that this population has adequate support, especially for students of health care majors, such as medicine[11,12]. Medical school is the first step in a physician's career and is more demanding than other professions. Medical students need, since the first semester, to learn to deal with the complexity of the contents taught and with the lack of time for leisure activities and socialization, compared to students of other courses[13]. It is known that the prevalence of some psychiatric disorder, notably depression and anxiety, among college students is estimated between 15-25% during their training. However, among medical students, the prevalence ranges from 30 to 60%. The contributing factors are the heavy course load, the extensive and complex content, insecurity about their own competence, and survival in the job market[14]. In the first years of the course, habit changes occur for adaptation to medical school, especially in the first year. A study conducted at the ABC School of Medicine in 2011 revealed that anxious symptoms are higher in the first year compared to the third year, probably due to the adaptive period to the high demand that the medical course requires. This percentage increases again in the fourth year and reaches the maximum value in the sixth year[15]. A systematic review and meta-analysis published in 2016 revealed that the overall combined

prevalence of depression or depressive symptoms in the studies evaluated was 27.2% with a 95% confidence interval. That same study pointed to an average increase in symptoms of 13.5% in students after course initiation and a prevalence of suicidal ideation of 11.1% (95% CI,)[16]. A systematic review and meta-analysis involving 17,560 physicians in training demonstrated that on average 20.9% and 43.2% of trainees tested positive for depression or depressive symptoms during residency. In addition, an increase in depressive symptoms among residents of 15.8% was observed within one year after the start of training[17]. All demonstrate some impact over the course of the first few years. So, measures are needed against this problem. Some studies show that academics who have a greater knowledge about mental health and a greater psychological intervention from their educational institutions have a lower prevalence of mental disorders[18]. A systematic review showed significantly lower rates of mental health problems in medical students in Asian students compared to US students, and the most important factor noted in the study for such a difference is the greater psychological support Asians have from their educational institutions[13]. A reliable estimate of the prevalence of depression during medical training is important to inform efforts to prevent, treat, and identify causes of depression among residents .[19] Therefore, by treating psychological or psychiatric disorders early, we can prevent the development of students' disorders and thus improve their mental and physical quality. However, to achieve this goal, it is extremely necessary to identify the demand and verify, through research, if there is evidence of worsening or presence of any disorder. For this reason, this study aims to evaluate the mental health of medical students.

MATERIALS AND METHODS

This is a cross-sectional, descriptive study conducted from March 2020 to August 2020. The data were obtained from a questionnaire using Google Forms. Sociodemographic data, their context and attitude towards the pandemic, factors related to social habits, and anxiolytic and antidepressant medications used by the students were evaluated. Data related to depressive and anxious symptoms were evaluated using the validated Hospital Anxiety and Depression (HAD) assessment instrument. The questionnaire presents 14 questions, with questions 1, 3, 5, 7, 9, 11 and 13 referring to Anxiety, and questions 2, 4, 6, 8, 10, 12 and 14 referring to Depression. The diagnostic cut-off points are as follows: 0 - 7 points - unlikely; 8 - 11 points - possible - (questionable or doubtful); 12 - 21 points - probable. All medical students, over 18 years of age, from public and private universities were included. We excluded from this study students under 18 years of age or those who had suspended or dropped out of the course. The data collected were tabulated and analyzed using SPSS software, v23, SPSS, Inc. Kolmogorov-Smirnov normality tests were performed for numerical variables. For non-serial measures, chi-square tests were used for categorical and ANOVA for numerical. The significance level was set at 95%. For comparison of populations by gender and year of study, tests for differences of two proportions were used: Student's t-test and chi-square test. The Mann-Whitney nonparametric test and Tukey's multiple comparisons test were used to compare the means of the ranges of anxiety symptoms according to the number of HAD points, after evaluations by the Levene (homoscedasticity) and Kolmogorov Smirnov (normality) tests.

RESULTS

A sample of 573 students responded to the online questionnaire, with 253 of responses in the first round between March to June 2020, while, in the second round, we had 320 responses between July to August 2020. The amount of female participants was 391 (68.2%), while 182 (31.8%) were male. The mean age of the participants was 23.7 (_+ 4.85) and the median age was 22. Most of the students surveyed were in their seventh (27.9%) and eighth semesters (27.7%). Through the studied profile, we present that, on average, 30% of the students have a previous diagnosis of anxiety disorder and depression, that is, most of them have no previous diagnosis of the main psychiatric disorders. As per table 1, medical student were asked about their context in the face of the covid- 19 pandemic, and most replied that they are not suspected or confirmed or previous case to be a covid-19 virus infected, and there were no changes in their sense of smell or taste. However, most stated that they know someone who has been diagnosed by the disease and confirms they are in social isolation most with 3 weeks duration, with a significant relationship to their sociodemographic profile as a student. During the isolation period, we expected that there would be a change in habits for all youth populations, and from what was seen, most students suffered only from change in sleep (41.9%) ($p = 0.0018^1$) and in change regarding physical education practices (31.4%) ($p< 0.001$). The results of the questionnaires on social habits can be seen in Table 4. However, in relation to smoking, alcoholism, and drug use, many had a healthier attitude towards them, and most continued to practice physical activity according to the average established by the WHO; however, most had a reduction or stopped completely after the decree of social isolation. These results can be seen in table 3. However, we noticed, through the analysis of the answers to the questionnaire shown in table 3, that the great part of the students do not use the main lines of medications for anxiety disorder, depressive disorder, and bipolar disorder. We noticed, through the students' results, the medications in use. The majority did not use any medication, nor did they increase the dose of those they were already taking during the pandemic isolation; however, they did not show a significant relation with the questions related to the pandemic context and their isolation, as it is registered in the table. The Hospital Anxiety And Depression Scale is a valid assessment that was used in the medical students' university field, and therefore, it was used as a mediator of the psychiatric disorders of anxiety and depression for medical school undergraduates. We noticed that there was no influence of fear or pessimism under the students to the extent that it was significant enough to disrupt their daily lives. Medical students stated in the questionnaire that many of them feel, most of the time or almost all of the time, panic, a head full of worry, and bad feelings of fear during the pandemic period, but there was no significant relationship to their context. Many affirmed, through this questionnaire, that they continue to take care of themselves or have reduced this habit minimally in relation to the previous moment. Although the context of the pandemic under the students brings a lot of uncertainty, there are still those who maintain hope or have decreased this level minimally. Finally, most continue to relax when they feel like it, feel the same pleasure in some activities, and usually feel joy during the pandemic context. Such facts can be seen in table 5, which shows the results of the validated questionnaire applied.

Tabela 1

Lista de perguntas sobre o contexto da pandemia				P-value
Você já teve diagnóstico prévio de ansiedade?	Sim 194 (33.9%)	Não 379 (66.1%)		0.6366[1]
Você já teve diagnóstico prévio de depressão?	Sim 191 (33.3%)	Não 382 (66.7%)		0.1370[1]
Você é caso suspeito ou confirmado para Covid-19?	Sim 41 (7.2%)	Não 532 (92.8%)		0.0030[1]
Você já teve covid-19 diagnosticada?	Sim 77 (24.1%)	Não 225 (70.3%)	Não sei 18 (5.6%)	<.0001[1]
Você teve algum familiar ou amigo diagnosticado com Covid-19?	Sim 367 (64.0%)	Não 206 (36.0%)		<.0001[1]
Você teve alguma alteração do olfato ou do paladar?	Sim 106 (18.5%)	Não 467 (81.5%)		<.0001[1]
Você está em isolamento social?	Sim 434 (75.7%)	Não 139 (24.3%)		<.0001[1]

Se sim, quanto tempo esteve em isolamento?		P-value
1 a 2 meses	52 (9.1%)	<.0001[1]
1 semana	9 (1.6%)	<.0001[1]
2 semanas	23 (4.0%)	<.0001[1]
3 a 4 meses	49 (8.6%)	<.0001[1]
3 semanas	174 (30.4%)	<.0001[1]
4 semanas	36 (6.3%)	<.0001[1]
5 a 6 meses	38 (6.6%)	<.0001[1]
mais de 4 semanas	11 (1.9%)	<.0001[1]
mais de 6 meses	115 (20.1%)	<.0001[1]
não fiquei em isolamento	66 (11.5%)	<.0001[1]

Fonte: autores, 2022.

Tabela 2

Tabela dos resultados do questionário sobre medicações				
Faz uso de algum Benzodiazepínico? (Ex: Diazepam, Oxazepam, Alprazolam...)	Sim: 30 (5.2%)	Não: 543 (94.8%)		0.0183[1]
Aumentou a dose ou a frequência de uso do Benzodiazepínico? (Ex: Diazepam, Oxazepam, Alprazolam...)	Sim: 16 (2.8%)	Não: 91 (15.9%)	Não faço uso: 466 (81.3%)	0.0073[1]
Faz uso de algum medicamento sedativo-hipnótico? (Ex: Zolpidem, Zaleplona, Eszipiclona)	Sim: 25 (4.4%)	Não: 548 (95.6%)		0.0380[1]
Aumentou a dose ou frequência do medicamento sedativo-hipnótico? (Ex: Zolpidem, Zaleplona, Eszipiclona)	Sim: 15 (2.6%)	Não: 72 (12.6%)	Não faço uso: 486 (84.8%)	0.1644[1]
Faz uso de Inibidores Seletivos da Recaptação de Serotonina? (Ex: Fluoxetina, Paroxetina, Citalopram, Escitalopram, Setralina)	Sim: 95 (16.6%)	Não: 478 (83.4%)		0.1786[1]
Aumentou a dose de Inibidores Seletivos da Recaptação de Serotonina? (Ex: Fluoxetina, Paroxetina, Citalopram, Escitalopram, Setralina)	Sim: 32 (5.6%)	Não: 111 (19.4%)	Não faço uso: 430 (75.0%)	<.0001[1]
Faz uso de Antidepressivos Tricíclicos? (Ex:Amitriptilina, Nortriptilina, Imipramina...)	Sim: 8 (1.4%)	Não: 565 (98.6%)		0.1786[1]
Aumentou a dose do Antidepressivo Tricíclico? (Ex: Amitriptilina, Nortriptilina, Imipramina...)	Sim: 1 (0.2%)	Não: 54 (9.4%)	Não faço uso: 518 (90.4%)	0.6726[1]
Faz uso de algum modulador dos receptores de Serotonina? (Ex: Trazodona, Nefazodona...)	Sim: 6 (1.0%)	Não: 567 (99.0%)		0.0286[1]
Aumentou a dose do modulador dos receptores de Serotonina? (Ex: Trazodona, Nefazodona...)	Sim: 1 (0.2%)	Não: 49 (8.6%)	Não faço uso: 523 (91.3%)	0.4870[1]
Faz uso de algum Inibidor da Monoaminoxidase? (Ex: Fenelzina, Isocarboxazida...)	Sim: 1 (0.2%)	Não: 572 (99.8%)		0.2603[1]
Aumentou a dose do Inibidor da Monoaminoxidase? (Ex: Fenelzina, Isocarboxazida...)		Não: 46 (8.0%)	Não faço uso: 527 (92.0%)	0.6849[1]
Faz uso de alguma outra medicação antidepressiva como Bupropiona, Mirtazapina ou Amoxapina ?	Sim: 15 (2.6%)	Não: 558 (97.4%)		0.8426[1]
Se sim, aumentou a dose dessa medicação Antidepressiva?	Sim: 2 (0.3%)	Não: 54 (9.4%)	Não faço uso: 517 (90.2%)	0.3878[1]
Faz uso de Lítio ou outros estabilizadores do humor?	Sim: 7 (1.2%)	Não: 566 (98.8%)		0.1437[1]
Aumentou a dose ou a frequência do Lítio ou de outros estabilizadores do humor?	Sim: 1 (0.2%)	Não: 48 (8.4%)	Não faço uso: 524 (91.4%)	0.5302[1]

Fonte: autores, 2022

Tabela 3.

Tabela dos resultados do questionário sobre hábitos sociais				
Seu apetite teve alguma alteração?	Aumentou: 211 (36.8%)	Diminuiu: 103 (18.0%)	Não teve alteração: 259 (45.2%)	<.0001[1]
Seu sono teve alguma alteração?	Aumentou: 240 (41.9%)	Diminuiu: 151 (26.4%)	Não teve alteração: 182 (31.8%)	0.0018[1]
Você faz ingestão de bebida alcoólica?	Sim: 344 (60.0%)	Não: 229 (40.0%)		0.5042[1]
Aumentou a ingesta alcoólica nesse período?	Sim: 102 (17.8%)	Não: 320 (55.8%)	Não faço uso: 151 (26.4%)	0.0005[1]
Você fuma?	Sim: 39 (6.8%)	Não: 534 (93.2%)		0.0812[1]
Aumentou o uso do cigarro durante esse período?	Sim: 24 (4.2%)	Não: 101 (17.6%)	Não faço uso: 448 (78.2%)	0.0112[1]
Você faz uso de outras drogas recreativas?	Sim: 42 (7.3%)	Não: 531 (92.7%)		0.8605[1]
Aumentou o uso dessa droga durante o confinamento?	Sim: 16 (2.8%)	Não: 107 (18.7%)	Não faço uso: 450 (78.5%)	0.1571[1]
Você pratica atividade física? (de acordo com a OMS, atividade física regular por 50 minutos 3x/semana ou 30 minutos 5x/semana)	Sim: 375 (65.4%)	Não: 198 (34.6%)		0.0261[1]

Tabela 4.

Após o isolamento, como ficou sua atividade física?		
Comecei a praticar atividade física de acordo com as orientações da OMS	51 (8.9%)	<.0001[1]
Continuo praticando com a mesma regularidade	63 (11.0%)	<.0001[1]
Continuo praticando com maior regularidade	50 (8.7%)	<.0001[1]
Não praticava antes	109 (19.0%)	<.0001[1]
Parei completamente de praticar atividade física	120 (20.9%)	<.0001[1]
Reduzi, mas não parei completamento a de atividade física	180 (31.4%)	<.0001[1]

In the present study, after applying this validated questionnaire to the students, we noticed that the majority have a score of the unlikely criteria for both anxiety and depression, although still a third claim previous diagnosis with these two psychiatric disorders.

Tabela 5

questionário validado da Hospital Anxiety and Depression (HAD)					
Eu me sinto tensa (o) ou contraída (o):	a maior parte do tempo: 95 (16.6%)	boa parte do tempo: 119 (20.8%)	de vez em quando: 316 (55.1%)	nunca: 43 (7.5%)	0.1938[1]
Eu ainda sinto que gosto das mesmas coisas de antes:	já não consigo ter prazer em nada: 5 (0.9%)	não tanto quanto antes: 193 (33.7%)	sim, do mesmo jeito que antes: 350 (61.1%)	só um pouco: 25 (4.4%)	0.5157[1]
Eu sinto uma espécie de medo, como se alguma coisa ruim fosse acontecer:	não sinto nada disso: 149 (26.0%)	sim, de jeito muito forte: 64 (11.2%)	sim, mas não tão forte: 201 (35.1%)	um pouco, mas isso não me preocupa: 159 (27.7%)	0.1497[1]
Dou risada e me divirto quando vejo coisas engraçadas:	atualmente bem menos: 35 (6.1%)	atualmente um pouco menos: 134 (23.4%)	do mesmo jeito que antes: 401 (70.0%)	não consigo mais: 3 (0.5%)	0.0532[1]
Estou com a cabeça cheia de preocupações:	a maior parte do tempo: 114 (19.9%)	boa parte do tempo: 184 (32.1%)	de vez em quando: 218 (38.0%)	raramente: 57 (9.9%)	0.1149[1]
Eu me sinto alegre:	a maior parte do tempo: 128 (22.3%)	muitas vezes: 287 (50.1%)	nunca: 3 (0.5%)	poucas vezes: 155 (27.1%)	0.0613[1]
Consigo ficar sentado à vontade e me sentir relaxado:	muitas vezes: 216 (37.7%)	nunca: 12 (2.1%)	Poucas vezes: 169 (29.5%)	sim, quase sempre: 176 (30.7%)	0.7430[1]
Eu estou lenta (o) para pensar e fazer coisas:	muitas vezes: 175 (30.5%)	nunca: 52 (9.1%)	Poucas vezes: 256 (44.7%)	quase sempre: 90 (15.7%)	0.0023[1]
Eu tenho uma sensação ruim de medo, como um frio na barriga ou um aperto no estômago:	muitas vezes: 289 (50.4%)	nunca 53 (9.2%)	Poucas vezes 201 (35.1%)	quase sempre 30 (5.2%)	0.0743[1]
Eu perdi o interesse em cuidar da minha aparência:	completamente: 23 (4.0%)	me cuido do mesmo jeito que antes 213 (37.2%)	não estou mais me cuidando como deveria: 103 (18.0%)	talvez não tanto quanto antes 234 (40.8%)	<.0001[1]
Eu me sinto inquieta (o), como se eu não pudesse ficar parada (o) em lugar nenhum:	bastante: 82 (14.3%)	não me sinto assim 239 (41.7%)	sim, demais 62 (10.8%)	um pouco 190 (33.2%)	0.1083[1]
Fico animada (o) esperando as coisas boas que estão por vir:	bem menos do que antes 85 (14.8%)	do mesmo jeito que ante 250 (43.6%)	quase nunca 47 (8.2%)	um pouco menos que antes 191 (33.3%)	0.0007[1]
De repente, tenho a sensação de entrar em pânico:	a quase todo momento 8 (1.4%)	de vez em quando: 169 (29.5%)	não senti isso: 357 (62.3%)	várias vezes: 39 (6.8%)	0.2559[1]
Consigo sentir prazer quando assisto a um bom programa de televisão, de rádio ou quando leio alguma coisa	poucas vezes: 87 (15.2%)	quase nunca: 17 (3.0%)	quase sempre: 305 (53.2%)	várias vezes: 164 (28.6%)	0.1195[1]

DISCUSSION

The profile of the students participating in the survey was compatible with other surveys already conducted in Brazil[20-3]. Therefore, this study is compatible in representing a Brazilian student reality in this comparison requirement. There is a study that shows a high prevalence of anxiety disorders and depression among college students[24,25]. This picture is well highlighted in medical students, representing a population very vulnerable to psychiatric illnesses. A study by Dyrbye LN, Thomas MR, Shanafelt TD, 2006[25] states in their review that there is a very high prevalence of these psychiatric disorders among medical students, even higher than the general population; However, in studies conducted during the emergence of the cases of COVID-19[26,27], there was an increase, both in intensification and in quantity, of these psychiatric disorders, not only among students, after the isolation decree, but mainly concentrated in young females. Therefore, this data is relevant to bring the idea that the factors caused by the pandemic may be influencing the intensification of the disorders already installed in medical students. However, what can be noticed in the profile presented is that most students who participated in the survey do not present anxiety or depression behavior or not in an intensified way during the period of social isolation. We see that most students claim to have remained in isolation, on average for three weeks or more than six months for the most part, and therefore we can say that there was, for the majority, a fairly prolonged length of stay in social isolation long enough to generate possible effects of changes in their behavior or habits. There has been a lot of research that has tested a relationship between chemosensory changes and COVID-19 disease[28,29,30], so much so that it is a relevant factor in suspecting such a disease[30] , and in the profile data, it was recorded that 18.5% of the students reported some alteration of smell and taste, but we are not sure if it is related to the diagnosis of COVID-19 in any significant way.

We noticed that the context of social isolation resulted in a deregulation of the students' sleep due to the great change in routine and habits generated by it, with a significant relationship with the

context experienced, which may be a factor for worsening the psychological quality. This data corroborates some studies that show a worsening in the quality of sleep, especially in students, during the pandemic period and that often resulted in worsening of depressive symptoms[31,32]. There are many studies that register a significant number of medical students reporting smoking in national[33,34] and even international[35,36] universities, and there is also a study[37] that addresses the electronic cigarette frequently in use by medical students, but not as predominant as the traditional one regarding the number of users. In these studies, the predominant factor was male gender, and the most prominent reasons were stress and the influence of friends. But the isolation period did not change or influence the use of this habit among most students. There are also studies in different countries that prove that there is a decrease in the practice of physical activity caused by the isolation period, thus increasing the sedentary lifestyle among college students[38,39]. The practice of physical exercise and its longer duration can result in better mental health status for students, especially in times of isolation[40], so this profile analyzed both the frequency and practice of some physical exercise in their routine during the pandemic. We noticed that there was a significantly worse change in relation to the practice and frequency of physical exercise arising from the pandemic, which may be another negative factor for their psychological health. Regarding alcoholism, there is research that claims a significant increase in alcohol consumption during the pandemic[41,42] and there are those that claim there is an impactful relationship with fear of the COVID-19 virus[43,44].

This study does not corroborate these researches since there was no increase in alcohol consumption by the students in the face of isolation and therefore this bad practice of this habit may mean that there was no harm to the psychological health of the students. On the other hand, most stated that they drink alcoholic beverages, but regularity may be an attitude that benefits health, and this healthy attitude towards drinking was also corroborated in other research[46,47]. Several studies have investigated and concluded that there was an increase in the sales of psychoactive drugs during the pandemic[48], especially antidepressants[49,50] , and one of the most common consumer publics are college students being influenced by the anxiety and emotional factor[51] . This fact was not observed in this research, because the students stated that they did not use the main lines of medications for anxiety and depression disorders nor did they increase the dose with a majority amount during isolation, although it cannot be affirmed that there is a significant relationship on this issue with the period experienced. The Hospital Anxiety And Depression Scale was a valid scale used in hospital settings, but it can be used in collective settings[52-4], which, in this case, was the medical students' campus, to be compared in other studies and evaluated in a standardized way in future research. This may help us to have a reliable relationship about the psychological health of the students during the isolation period and whether there is a relationship with the other responses in the context of isolation in the pandemic. However, as shown, the results of this paper assume that most of the students in this profile were not drastically affected by the isolation caused by COVID-19 in relation to their mental health. This study does have certain limitations in that it was not applied to more students in different semesters, in the accessibility of internet access to answer the questionnaire, and in the absence of a longer, longitudinal follow-up of students to see if their health worsened over the time they were in isolation.

REFERENCES

1. Barman, MP, Rahman, T., Bora, K., & Borgohain, C. 2020. Pandemia de COVID-19 e seu tempo de recuperação de pacientes na Índia: um estudo piloto. Diabetes & Síndrome Metabólica: Clinical Research & Reviews , 14 5, 1205-1211.
2. Guan, WJ, Ni, ZY, Hu, Y., Liang, WH, Ou, CQ, He, JX, ... & Zhong, NS 2020. Características clínicas da doença de coronavírus 2019 na China. New England Journal of Medicine , 382 18, 1708-1720.
3. Yan, Y., Shin, W. I., Pang, Y. X., Meng, Y., Lai, J., You, C., ... & Pang, C. H. 2020. The first 75 days of novel coronavirus SARS-CoV-2 outbreak: recent advances, prevention, and treatment. International journal of environmental research and public health, 177, 2323.
4. Goërtz, YM, Van Herck, M., Delbressine, JM, Vaes, AW, Meys, R., Machado, FV, ... & Spruit, MA 2020. Sintomas persistentes 3 meses após uma infecção por SARS-CoV-2: a síndrome pós-COVID-19?. Pesquisa aberta ERJ , 6 4.
5. Huang, C., Huang, L., Wang, Y., Li, X., Ren, L., Gu, X., & Cao, B. 2021. Consequências de 6 meses do COVID-19 em pacientes que receberam alta hospitalar: um estudo de coorte. The Lancet , 397 10270, 220-232.
6. Dąbrowska, E., Galińska-Skok, B., & Waszkiewicz, N. 2021. Depressive and Neurocognitive Disorders in the Context of the Inflammatory Background of COVID-19. Life, 1110, 1056.
7. Vindegaard N, Benros ME. 2020 COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. Brain Behav Immun. 89, pp. 531-542. doi: 10.1016/j.bbi.2020.05.048.
8. Hossain MM, Tasnim S, Sultana A, Faizah F, Mazumder H, Zou L, McKyer ELJ, Ahmed HU, Ma P. 2020 Epidemiology of mental health problems in COVID-19: a review. F1000Res. 23;9:636. doi: 10.12688/f1000research.24457.1.
9. Guessoum SB, Lachal J, Radjack R, Carretier E, Minassian S, Benoit L, Moro MR. 2020 Adolescent psychiatric disorders during the COVID-19 pandemic and lockdown. Psychiatry Res. 291:113264. doi: 10.1016/j.psychres. 2020.113264.
10. Cao W, Fang Z, Hou G, Han M, Xu X, Dong J, Zheng J. 2020 The psychological impact of the COVID-19 epidemic on college students in China. Psychiatry Res. 287:112934. doi: 10.1016/j.psychres.2020.112934.
11. Arima M, Takamiya Y, Furuta A, Siriratsivawong K, Tsuchiya S, Izumi M. 2020 Factors associated with the mental health status of medical students during the COVID-19 pandemic: a cross- sectional study in Japan. BMJ Open. 1012:e043728. doi: 10.1136/ bmjopen-2020-043728.
12. Saraswathi I, Saikarthik J, Senthil Kumar K, Madhan Srinivasan K, Ardhanaari M, Gunapriya R. 2020 Impact of COVID- 19 outbreak on the mental health status of undergraduate medical students in a COVID-19 treating medical college: a prospective longitudinal study. PeerJ. 8:e10164. doi: 10.7717/peerj.10164.
13. Cuttilan AN, Sayampanathan AA, Ho RC. 2020 Mental health issues amongst medical students in Asia: a systematic review [2000-2015]. Ann Transl Med. 44:72. doi: 10.3978/ j.issn.2305-5839.2016.02.07.
14. Júnior, MAGN, Braga, YA, Marques, TG, Silva, RT, Vieira, SD, Coelho, VAF, & Regazzoni, LAA. 2015 Depressão em estudantes de medicina. Rev Med Minas Gerais, 254, 562-567.
15. Baldassin, S., Martins, LC, & de Andrade, AG. 2006 Traços de ansiedade entre estudantes de medicina. Arquivos médicos do ABC. 311.
16. Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, Sen S, Mata DA. 2016 Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. JAMA. 31621:2214-2236. doi: 10.1001/jama.2016.17324.
17. Mata DA, Ramos MA, Bansal N, Khan R, Guille C, Di Angelantonio E, Sen S. 2015 Prevalence of Depression and Depressive Symptoms Among Resident Physicians: A Systematic Review and Meta-analysis. JAMA. 31422:2373-83. doi: 10.1001/jama.2015.15845.
18. Fahrenkopf AM, Sectish TC, Barger LK, Sharek PJ, Lewin D, Chiang VW, Edwards S, Wiedermann BL, Landrigan CP. 2008 Rates of medication errors among depressed and burnt out residents: prospective cohort study. BMJ. 3367642:488-91. doi: 10.1136/ bmj.39469.763218.BE.
19. Shanafelt TD, Sloan JA, Habermann TM. 2003 The well-being of physicians. Am J Med. 1146:513-9. doi: 10.1016/s0002-93430300117-7. PMID: 12727590.
20. Paes, ÂT, Dias, BDF, Eleutério, GN, & Paula, VPD. 2018 Perfil dos ingressantes na primeira turma de graduação em Medicina

da Faculdade Israelita de Ciências da Saúde Albert Einstein. Einstein São Paulo. 16.

21. Fiorotti KP Rossoni RR, Miranda AE. 2010 [Profile of medical students at the Federal University in Espírito Santo, Brazil, 2007]. Rev Bras Educ Med. 343:355-62.
22. Gozzano MB, Gozzano JR, Beraldo MB, Garcia MS, Gozzano JO. 2006 Perfil dos estudantes de Medicina da PUC-SP Rev Fac Cienc Med Sorocaba. 8 2:7-10.
23. Ferreira RA, Peret-Filho LA, Goulart EM, Valadão MM. 2000 O estudante de medicina da Universidade Federal de Minas Gerais: perfil e tendências. Rev Assoc Med Bras. 46 3: 224-31.
24. Iqbal S, Gupta S, Venkatarao E. 2015 Stress, anxiety and depression among medical undergraduate students and their socio-demographic correlates. Indian J Med Res. 1413:354-7. doi: 10.4103/0971-5916.156571.
25. Dyrbye LN, Thomas MR, Shanafelt TD. 2006 Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. Acad Med. 2006 Apr;814:354-73. doi: 10.1097/00001888- 200604000-00009.
26. Ma Z, Zhao J, Li Y, Chen D, Wang T, Zhang Z, Chen Z, Yu Q, Jiang J, Fan F, Liu X. 2020 Mental health problems and correlates among 746 217 college students during the coronavirus disease 2019 outbreak in China. Epidemiol Psychiatr Sci. 29:e181. doi: 10.1017/ S2045796020000931.
27. Zhou SJ, Zhang LG, Wang LL, Guo ZC, Wang JQ, Chen JC, Liu M, Chen X, Chen JX. 2020 Prevalence and socio- demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. Eur Child Adolesc Psychiatry. 2020 Jun;296:749-758. doi: 10.1007/s00787-020-01541-4.
28. Coelho DH, Kons ZA, Costanzo RM, Reiter ER. 2020 Subjective Changes in Smell and Taste During the COVID-19 Pandemic: A National Survey-Preliminary Results. Otolaryngol Head Neck Surg. 1632:302-306. doi: 10.1177/0194599820929957.
29. Izquierdo-Domínguez A, Rojas-Lechuga MJ, Chiesa-Estomba C, Calvo-Henríquez C, Ninchritz-Becerra E, Soriano- Reixach M, Poletti-Serafini D, Villarreal IM, Maza-Solano JM, Moreno-Luna R, Villarroel PP, Mateos-Serrano B, Agudelo D, Valcarcel F, Del Cuvillo A, Santamaría A, Mariño-Sánchez F, Aguilar J, Vergés P, Inciarte A, Soriano A, Mullol J, Alobid I. 2020 Smell and Taste Dysfunction in COVID-19 Is Associated With Younger Age in Ambulatory Settings: A Multicenter Cross-Sectional Study. J Investig Allergol Clin Immunol. 305:346-357. doi: 10.18176/jiaci.0595.
30. Wong DKC, Gendeh HS, Thong HK, Lum SG, Gendeh BS, Saim A, Salina H. 2020 A review of smell and taste dysfunction in COVID-19 patients. Med J Malaysia. 755:574-581.
31. Marelli S, Castelnuovo A, Somma A, Castronovo V, Mombelli S, Bottoni D, Leitner C, Fossati A, Ferini-Strambi L. 2021 Impact of COVID-19 lockdown on sleep quality in university students and administration staff. J Neurol. 2681:8-15. doi: 10.1007/s00415-020-10056-6.
32. Huang Y, Zhao N. 2021 Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. Psychiatry Res. 2020 Jun;288:112954. doi: 10.1016/j.psychres.2020.112954. Epub 2020 Apr 12. Erratum in: Psychiatry Res. 299:113803.
33. Stramari LM, Kurtz M, Silva LC. 2009 Prevalence of and variables related to smoking among medical students at a university in the city of Passo Fundo, Brazil. J Bras Pneumol. 355:442-8. English, Portuguese. doi: 10.1590/s1806-37132009000500009.
34. de Andrade AP, Bernardo AC, Viegas CA, Ferreira DB, Gomes TC, Sales MR. 2006 Prevalence and characteristics of smoking among youth attending the University of Brasília in Brazil. J Bras Pneumol. 321:23-8. English, Portuguese. doi: 10.1590/ s1806-37132006000100007.
35. Hossain S, Hossain S, Ahmed F, Islam R, Sikder T, Rahman A. 2017 Prevalence of Tobacco Smoking and Factors Associated with the Initiation of Smoking among University Students in Dhaka, Bangladesh. Cent Asian J Glob Health. 61:244. doi: 10.5195/ cajgh.2017.244.
36. Al-Naggar RA, Al-Dubai SA, Al-Naggar TH, Chen R, Al-Jashamy K. 2011 Prevalence and of smoking and associated factors among Malaysian University students. Asian Pac J Cancer Prev. 123:619-24.
37. Brożek G, Jankowski M, Zejda J, Jarosińska A, Idzik A, Bańka P. 2017 E-smoking among students of medicine - frequency, pattern and motivations. Adv Respir Med. 851:8-14. doi: 10.5603/ARM.2017.0003.
38. Rodríguez-Larrad A, Mañas A, Labayen I, González-Gross M, Espin A, Aznar S, Serrano- Sánchez JA, Vera-Garcia FJ, González-Lamuño D, Ara I, Carrasco-Páez L, Castro-Piñero J, Gómez-Cabrera MC, Márquez S, Tur JA, Gusi N, Benito PJ, Moliner-Urdiales D, Ruiz JR, Ortega FB, Jiménez-Pavón D, Casajús JA, Irazusta J. 2021 Impact of COVID-19 Confinement on Physical Activity and Sedentary Behaviour in Spanish University Students: Role of Gender. Int J Environ Res Public Health. 182:369. doi: 10.3390/ijerph18020369.
39. Gallè F, Sabella EA, Ferracuti S, De Giglio O, Caggiano G, Protano C, Valeriani F, Parisi EA, Valerio G, Liguori G, Montagna MT, Romano Spica V, Da Molin G, Orsi GB, Napoli C. 2020 Sedentary Behaviors and Physical Activity of Italian Undergraduate Students during Lockdown at the Time of CoViD-19 Pandemic. Int J Environ Res Public Health. 1717: 6171. doi: 10.3390/ijerph17176171.
40. Deng CH, Wang JQ, Zhu LM, Liu HW, Guo Y, Peng XH, Shao JB, Xia W. 2020 Association of Web-Based Physical Education With Mental Health of College Students in Wuhan During the COVID-19 Outbreak: Cross-Sectional Survey Study. J Med Internet Res. 2210:e21301. doi: 10.2196/21301.
41. Salerno JP, Shrader CH, Algarin AB, Lee JY, Fish JN. 2021 Changes in alcohol use since the onset of COVID-19 are associated with psychological distress among sexual and gender minority university students in the U.S. Drug Alcohol Depend. 221:108594. doi: 10.1016/j.drugalcdep.2021.108594.
42. Charles NE, Strong SJ, Burns LC, Bullerjahn MR, Serafine KM. 2021 Increased mood disorder symptoms, perceived stress, and alcohol use among college students during the COVID-19 pandemic. Psychiatry Res. 296:113706. doi: 10.1016/j.psychres. 113706.
43. Nguyen HT, Do BN, Pham KM, Kim GB, Dam HTB, Nguyen TT, Nguyen TTP, Nguyen YH, Sørensen K, Pleasant A, Duong TV. 2020 Fear of COVID-19 Scale-Associations of Its Scores with Health Literacy and Health-Related Behaviors among Medical Students. Int J Environ Res Public Health. 1711: 4164. doi: 10.3390/ijerph17114164.
44. Reznik A, Gritsenko V, Konstantinov V, Yehudai M, Bender S, Shilina I, Isralowitz R. 2021 First and Second Wave COVID-19 Fear Impact: Israeli and Russian Social Work Student Fear, Mental Health and Substance Use. Int J Ment Health Addict. 2:1-8. doi: 10.1007/ s11469-020-00481-z.
45. Kobbaz TM, Bittencourt LA, Pedrosa BV, Fernandes BDM, Marcelino LD, Freitas BP, Maciel N, Rothfuchs AP, Magalhães EDS, Saud NS, Vidigal AS, Miura BYG, Cunha Rodrigues JF, Müller UM, de Almeida Silva L, Arnoldi Cobas R, Nishijuka FA, Barbato KBG. 2021 The lifestyle of Brazilian medical students: What changed and how it protected their emotional wellbeing during the COVID-19 pandemic. Aust J Gen Pract. 509: 668-672. doi: 10.31128/ AJGP-03-21-5886.
46. Sandell C, Saltychev M. 2021 Change in alcohol consumption and physical activity during the COVID-19 pandemic amongst 76 medical students. PeerJ. 9:e12580. doi: 10.7717/ peerj.12580.
47. dos Santos Cabral, V. R., Barbosa, D. D. C. M., Valério, C. C., Silva, E. S., & Pinheiro, M. M. 2021 AVALIAÇÃO DO IMPACTO DA PANDEMIA DE COVID-19 NA FARMACOTERAPIA DE PACIENTES DE SAÚDE MENTAL. Saúde. Com- Ciência ISSN: 2594-5890. 1, 230-245.
48. Galloni, L., de Freitas, L. R., & Gonzaga, R. V. 2021 Consumo de psicoativos lícitos durante a pandemia de Covid-19. Revista Brasileira de Ciências Biomédicas. 21, e0442021-1.

49. Pereira, R. E., & Carnevalli, B. C. 2018 USO, CONHECIMENTO E FATORES QUE INFLUENCIAM O CONSUMO DE ANTIDEPRESSIVOS EM UNIVERSITÁRIOS DOS CURSOS DE SAÚDE DE UMA INSTITUIÇÃO DE ENSINO SUPERIOR PRIVADA DO MUNÍCIPIO DE SETE LAGOAS-MG. Revista Brasileira de Ciências da Vida. 605, 113-128.
50. Costa, L. R. S., Pitanga, T. N., Moura, I. D. A., Silva, I. D. R., & Santos, I. P. 2021 O uso de escitalopram e da fluoxetina na pandemia de COVID-19: uma análise comparativa. SEMOC–Semana de Mobilização Científica-Economia Circular: o novo paradigma para a sustentabilidade.
51. Snaith, RP. A escala hospitalar de ansiedade e depressão. 2003 Resultados de saúde e qualidade de vida. 1 1: 1-4.
52. Zigmond, A.S.7 Snaith,R.P. 1983 The Hospital Anxiety and Depression Scale. Acta Psychiatrica Scandinavica. 67: 361-370
53. Botega NJ, Bio MR, Zomignani MA, Garcia JR C, Pereira WAB. 1995 Transtornos do humor em enfermaria de clínica médica e validação de escala de medida HAD de ansiedade e depressão. Revista de Saúde Pública, 295: 355-63.

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