Common Mental Disorders During the COVID-19 Pandemic: Frequency and Associated Factors

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Abstract

This study aimed to assess the frequency and associated factors of symptoms of common mental disorders in the Brazilian population at the beginning of the coronavirus disease 2019 (COVID-19) pandemic. A sample of 1,482 adults, with a mean age of 34.68 years (*SD* = 13.66 years), 76.8% female, answered a sociodemographic questionnaire, the Depression, Anxiety, and Stress Scale-21 (DASS-21), and the Mindful Attention and Awareness Scale. Atypical high levels of symptoms of common disorders were observed, as well as self-mutilation, suicidal ideation, and suicide attempts. The mindful trait was the main factor negatively associated with both anxiety and depression symptoms. Worse financial conditions and non-normative sexual orientation predicted symptoms of anxiety and depression, but no differences were found between the group that followed and the one that did not follow the social distancing measures. From the high clinical indices, the pandemic effect can be inferred, but longitudinal studies could help understand long-term effects.

Keywords: COVID-19, mental health, Brazil, social distancing, mental illness

TRANSTORNOS MENTAIS COMUNS DURANTE A PANDEMIA DA COVID-19: FREQUÊNCIA E FATORES ASSOCIADOS

Resumo

Este estudo teve por objetivo avaliar a frequência de sintomas de transtornos mentais comuns e os fatores associados a eles na população brasileira no início da pandemia da *coronavirus disease 2019* (Covid-19). Uma amostra de 1.482 adultos, com idade média de 34,68 anos (*DP* = 13,66), 76,8% do sexo feminino, respondeu a um questionário sociodemográfico, à Escala de Depressão, Ansiedade e Estresse – 21 (*Depression, Anxiety, and Stress Scale-21* [DASS-21]) e à Escala de Atenção e Consciência Plena. Foram observados níveis elevados e atípicos de transtornos comuns, bem como automutilação, ideação suicida e tentativas de suicídio. O traço *mindful* foi o principal fator associado negativamente tanto a sintomas de ansiedade quantos a sintomas de depressão. Pior condição financeira e orientação sexual não normativa predisseram sintomas de ansiedade e depressão, mas não foram encontradas diferenças entre o grupo que seguiu e o que não seguiu as regras do distanciamento social. O efeito pandêmico pode ser inferido a partir dos níveis clínicos elevados, mas estudos longitudinais podem ajudar a compreender efeitos de longo prazo.

Palavras-chave: Covid-19, saúde mental, Brasil, distanciamento social, transtornos mentais comuns

TRASTORNOS MENTALES COMUNES DURANTE LA PANDEMIA DE COVID-19: FRECUENCIA Y FACTORES ASOCIADOS

Resumen

Este estudio tuvo como objetivo evaluar la frecuencia y factores asociados a los síntomas de trastornos mentales comunes en la población brasileña al comienzo de la pandemia de *coronavirus disease 2019* (COVID-19). Una muestra de 1.482 adultos, con edad media de 34,68 años (*DE* = 13,66), 76,8% mujeres, respondieron un cuestionario sociodemográfico, la Escala Depresión, Ansiedad y Estrés – 21 (*Depression, Anxiety, and Stress Scale-21* [DASS-21]) y la Escala de Atención y Conciencia Plena. Se observaron niveles altos atípicos de trastornos comunes, así como automutilación, ideación suicida e intentos de suicidio. La atención plena fue el principal factor asociado negativamente tanto a los síntomas de ansiedad como a los síntomas de depresión. La peor situación económica y orientación sexual no normativa predijeron síntomas de ansiedad y depresión, pero no se encontraron diferencias entre el grupo que siguió y el que no siguió las reglas del distanciamiento social. A partir de los altos índices clínicos, se puede inferir el efecto pandémico, pero estudios longitudinales podrían ayudar a comprender los efectos a largo plazo.

Palabras clave: COVID-19, salud mental, Brasil, aislamiento social, enfermedad mental

In December 2019, a series of pneumonia cases associated with a new type of coronavirus, which was found to cause coronavirus disease (COVID-19), was identified in Wuhan (Liu et al., 2020). The new etiologic agent that causes the disease, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), rapidly spread around the world. On January 30th, the World Health Organization (WHO) declared the pandemic to be an international emergency.

In Brazil, the first case was confirmed in February 2020, and the first death occurred in March, both in the state of São Paulo (Instituto Brasileiro de Geografia e Estatística, 2020). The states adopted social distancing, which is used to reduce social interaction with unidentified infected individuals. The policy includes the closure of schools, workplaces, and several businesses, and the cancellation of events and flights to prevent contagion (Aquino et al., 2020). Those contention measures were initiated on March 13th, and they varied according to each region of the country. In the following weeks, teleworking was implemented, schools started their school year remotely, and gyms and entertainment services were closed, which led to changes in people's daily habits and routines.

The social, economic, and psychological impacts of the pandemic were substantial. According to the Brazilian Institute of Geography and Statistics (IBGE), after the closure of establishments, unemployment rates had reached 12.6% in Brazil, an increase of 1.6% compared to the last quarter of 2019. Northwestern Brazilian states were the most affected, with a 2% increase, against 0.9% in the Southeastern's (Instituto Brasileiro de Geografia e Estatística, 2020). Moreover, the unpredictability of outcomes, restriction of social contact, fear of contagion, concern for loved ones, and excessive time at home, among other factors, may contribute to worsening mental health (Özdin & Özdin, 2020).

The drastic changes in people's lives may be related to an increase in psychiatric symptoms, such as anxiety, post-traumatic stress, depression, and sleep disorders (Liu et al., 2012; Jeong et al., 2016). A survey done with 15,000 individuals in social isolation in South Korea due to the epidemic caused by Middle East respiratory syndrome (MERS) found an increase in anxiety symptoms, even if individuals were quarantined for only two weeks, which persisted for up to six months after the end of isolation (Jeong et al., 2016). Another study, conducted with hospital staff in Beijing who worked during the 2003 severe acute respiratory syndrome (SARS) epidemic, showed that being quarantined was associated with elevated levels of depressive symptoms in 9% of professionals even after three years and controlling for post-traumatic stress symptoms (Liu et al., 2012).

Anxiety and depression, known as common disorders, are among some of the most important consequences of stressful situations (Özdin & Özdin, 2020). Besides the direct impact that the pandemic itself and its control measures can have on those disorders' levels, it is important to consider other risk and protective factors associated with this. These factors can be described as variables that increase or decrease the probability of a future negative outcome (Coie et al., 1993). Regarding COVID-19, the risk factors seem to belong to groups of lower social privilege (female, non-heterosexual, with lower socioeconomic and education levels), belonging

to the high-risk group for COVID-19 or having a family member who does, working as a health care professional, living alone, or having a conflicting relationship at home (Wang et al., 2020).

Protection factors, otherwise, are regular physical activity and relaxation techniques, practices that reduce stress, anxiety, and depressive symptoms (Sala et al., 2019). Plus, many studies have identified the mindfulness trait – an individual difference in the tendency to remain focused on what is being experienced in the present moment, in a curious, open, and compassionate way – as an important protective factor against psychological illness, based on the strengthening of healthy behaviors (Sala et al., 2019). Studies conducted during the pandemic examined the role of mindfulness dispositions in protecting people against psychological distress consequent to social distancing. Trait mindfulness was inversely related to worry, fear, anxiety, and insomnia. Results showed evidence that high levels of mindful trait help cope with stressful situations such as the COVID-19 pandemic (Baiano et al., 2020; Xiong et al., 2020; Zheng et al., 2020).

Research on the effects of the COVID-19 pandemic on mental health are still being conducted since it is a recent event in the world. Most of the published research has been carried out in countries outside Latin America, such as China, Italy, and Turkey (Scarmozzino & Visioli, 2020; Özdin & Özdin, 2020), regions where effects were perceived before. In Brazil, some research has been made investigating some associated variables on the worsening of mental health (Goularte et al., 2021).

Given the lack of Brazilian research and the urgency of the topic, this study aimed to evaluate the frequency of symptoms and associated factors that could help understand differences in levels of common disorders symptoms at the beginning of social distancing caused by COVID-19 in the Brazilian population. Among the hypotheses, it is considered that levels of symptoms of common disorders have increased compared to official data from before the pandemic and that there are risk and protection factors for this. Among the risk factors, there are social contact restraint; lower education and socioeconomic status; female gender and non-heterosexual orientation; unemployment, work interruption, or loss of income; being a health professional; living alone or having conflicting relationships at home; belonging to the risk group or living with someone who does. In turn, leaving home for work, sharing a residence with others, as well as having a high level of mindful trait, would be among the protection factors.

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Method

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Participants

This descriptive, quantitative cross-sectional study using survey and self-report questionnaires counted with an initial sample size of 1,478 adults selected by convenience, with ages varying between 18 and 90 years (M = 34,67 ± 13,63), being 76,8% female (eight transgender). Most of the responders considered themselves white and from upper socioeconomic levels (A and B), as shown in Table 1. From the entire sample, 321 individuals related that they were not respecting social distancing rules or that they were going out to work, against 1,161 who affirmed they were following the rules for about three weeks, getting out only for food shopping.

Thus, as a way of comparing the mental health profile of individuals who were in social distancing with those who were not, a subsample was selected consisting of 642 participants (half of them practising social distancing). As it will be described below, the two groups were matched by propensity scores, controlling for sociodemographic variables.

Table 1

Sociodemographic Characteristics of the Study Participants

	General sample (*n* = 1482)	Depression_mat[a] (*n* = 642)	Anxiety_mat[b] (*n* = 642)
Sexual orientation			
Heterosexual	1,220 (82.3%)	574 (89.4%)	568 (88.5%)
Homosexual	110 (7.4%)	34 (5.3%)	32 (5%)
Bisexual	129 (8.7%)	31 (4.8%)	35 (5.5%)
Not declared	21 (1.4%)	3 (.5%)	6 (.9%)
Marital status			
Single	840 (56.7%)	333 (51.9%)	355 (55.3%)
Married/common-law marriage	504 (34%)	250 (38.9%)	238 (37.1%)
Divorced	119 (8%)	53 (8.3%)	42 (6.5%)
Widowed	19 (1.3%)	6 (.9%)	7 (1.1%)
Educational level			
Illiterate/middle school	3 (.2%)	1 (.2%)	1 (.2%)
High school	170 (11.4%)	77 (12%)	69 (1.7%)
Undergraduate student	397 (25.6%)	149 (23.2%)	171 (26.6%)
Bachelor's degree	388 (26.2%)	180 (28%)	164 (25.5%)
Postgraduate degree	542 (36.5%)	235 (36.6%)	237 (36.9%)
Socioeconomic status*			
D-E	19 (1.3%)	6 (.9%)	7 (1.1%)
C2	72 (4.9%)	31 (4.8%)	27 (4.2%)
C1	200 (13.5%)	92 (14.3%)	90 (14%)
B2	439 (29.6%)	195 (3.4%)	173 (26.9%)
B1	328 (22.1%)	144 (22.4%)	160 (24.9%)
A	424 (28.6%)	174 (27.1%)	185 (28.8%)
Region			
Midwest	23 (1.6%)	5 (.8%)	8 (1.2%)
Northeast	448 (3.2%)	204 (31.8%)	198 (3.8%)
North	3 (.2%)	1 (.2%)	198 (3.8%)
Southeast	939 (63.4%)	402 (62.6%)	409 (63.7%)
South	51 (3.4%)	26 (4%)	21 (3.3%)
Abroad	14 (.9%)	2 (.3%)	5 (.8%)

Note. *According to the Brazilian Association of Research Companies (Associação Brasileira de Empresas de Pesquisa, 2019), poverty is represented by D and E classes;
[a] subsample matched by age, working status, mindful trait, sexual orientation, and income.
[b] subsample matched by gender, mindful trait, sexual orientation, and income.

Instruments

- Sociodemographic questionnaire: created for this research, containing multiple-choice questions about socioeconomic status according to the criteria established by the Brazilian Association of Research Companies (Associação Brasileira de Empresas de Pesquisa, 2019), sociodemographic information (e.g., race, sexual orientation, and gender), and lifestyle changes caused by social distancing (e.g., "are you currently in social distancing?", "have you noticed an increase on alcohol or other drugs consumption?").

- Depression, Anxiety, and Stress Scale-21 (DASS-21): a 21 item-scale to assess Clark and Watson's tripartite model (1991), including anxiety, depression, and stress that represent the overlap of key symptoms and explains the high levels of comorbidity between the two disorders. The responses are given on a four-point Likert scale (0 = "I strongly disagree" and 3 = "I totally agree"). Results variate between zero and 21, with higher scores indicating more symptoms. The version chosen was the one adapted to Brazilian Portuguese by Vignola and Tucci (2014), which showed adequate psychometric properties. Although DASS-21 is a scale to evaluate anxiety, depression, and stress in a quantitative way, it had been associated with a clinical diagnostic of common disorders, presenting adequate levels of sensitivity and specificity (Dunstan et al., 2017). For this reason, the group with clinical levels according to the cutoff scores in DASS-21 (nine for depression, six for anxiety, and ten for stress) was considered as having the associated diagnostic.

- The Mindful and Attention Awareness Scale (MAAS): a 15-item self-report scale designed to assess individual differences in mindfulness core trait that characterizes the tendency to keep a state of mind in which the individual, informed by a sensitive awareness of what is occurring in the present, simply observes what is taking place. The items are answered on a six-point Likert scale (1 = "almost always" and 6 = "almost never"). The scale was adapted to Brazilian Portuguese by Barros et al. (2015).

Procedures

This study is descriptive, with correlational data from a survey collected as part of an umbrella project ("Relationships between maladaptive schemes and perception of suicide in adults") and was approved by the Ethics Committee of the Faculty of Medical Sciences of Minas Gerais (*Faculdade Ciências Médicas de Minas Gerais* [FCMMG]) under No. 4.005.117. Data were collected through an online questionnaire between April and May 2020, using Google Forms software, sent through e-mail and social media (WhatsApp, Twitter, and Facebook). An online informed consent explaining ethics and data secrecy was obtained from the participants, and then they completed the questionnaire, which took around 25 minutes.

To assess non-causal relationships between quantitative measures, bivariate Pearson's correlation analyses were performed, with magnitudes classified as weak when scores were below .39, moderate between .40 and .69, and above .7 as strong in magnitude. For categorical variables, mean comparison analysis was performed − Student's t test for binaries − and analysis of variance, for those with more than two categories, with a *post hoc* Bonferroni test. Those previous analyses were conducted in Statistical Package for the Social Sciences (SPSS), version 23.

To test whether being in social distancing could have any impact on anxiety and depression scores, a propensity score matching procedure was conducted for each dependent variable. The first step was to perform linear regression analysis, with stepwise method, to identify the most important variables associated with both dependent variables: anxiety and depression scores. Then, independent variables found in the best model for each dependent variable were used as covariates for propensity score calculation. Participants who were and were not in social distancing were subsequently matched according to the propensity scores. Each isolated participant was matched to another one who was not isolated using the nearest neighbor matching algorithm. Both groups were expected to share nearly identical levels of the covariates after matching to guarantee that any differences in anxiety or depression levels between groups would be associated only with social distancing status. Matching was performed using R software, version 4.0.4, with the MatchIt package. Student's t tests were conducted to calculate the mean differences between both groups in depression and anxiety levels.

Results

In general, most of the participants (70.2%) were employed, although some of them (23.3% of the employed) had their job interrupted due to pandemic restrictions or were working from home (48.7%). Only 28% of the employed kept working ordinarily. The unemployment rate was 18.1%, and 24 participants (8.7% of the unemployed) reported dismissal due to the pandemic. More than half of the whole sample (58.9%) reported income reduction due to the pandemic, and most of them (88.5%) said they were concerned about it. The income reduction happened at all socioeconomic levels, with no significant differences between them.

Concerning changes in life routine, 78.34% of the participants were living in social distancing, most of them (88.3%) for about three weeks. Among the participants, 92% were living with someone else at the beginning of social distancing, and 60.3% affirmed having at least one member as part of the high-risk group. Also, 31.6% reported having at least one of the risk factors for complications associated with COVID-19 contamination.

In respect of mental health, 1.8% used self-injury as a stress coping strategy, 8.8% had suicidal thoughts and, within this group, 9.2% reported having attempted suicide during social distancing. An increase in the consumption of alcohol or other drugs was observed in 24.4% of the sample. High clinical levels of depression (25.4% of participants), anxiety (23.2% of participants), and stress (16.8% of participants) were found, according to the cutoff score of DASS-21. MAAS was submitted to a factor analysis for testing its dimensional adequacy. Results

indicated a one-factor solution according to eigenvalues and scree plots, with a factor load above .40. Scores were standardized by the regression method and used in the posterior analysis as a mindfulness trait measure instead of the sum of scores.

Subsequently, all variables were included in a scatter plot to identify non-linear associations. The variable income per capita presented a non-linear pattern (asymptotic, decreasing, and convex) and had to be submitted to an exponential convergence for linear relations with dependent variables.

As shown in Table 2, the mindfulness trait emerged as the most correlated factor with DASS-21 scores (r = -.470 for anxiety, r = -.553 for depression, and r = -.591 for stress, $p < .01$), showing that as higher the level of those symptoms the lower the mindfulness trait level. MAAS was negatively correlated with stress level (r = -.591, $p < 0.01$). All the other correlations were of low magnitude (r ranging between .004, $p > 0.05$, and .386, $p < .01$). Per capita income presented negative and low correlation with anxiety and depression. As the association of this independent variable with the dependents (anxiety and depression) seemed to be not linear, it was transformed into its exponential and showed higher correlations than the variable without transformation with both depression and anxiety.

Table 2

Pearson's Correlation Between Common Disorders' Symptoms and Sociodemographic Factors

	Anxiety	Depression	Age	Education	SES	MAAS	PCI	PCI-Exp
Depression	.697**							
Age	-.269**	-.386**						
Education	.088**	.133**	-.093**					
SES	.099**	.092**	-.004	.013				
MAAS	-.470**	-.553**	.335**	-.245**	-.013			
PCI	-.187**	-.194**	.238**	-.025	-.233**	.092**		
PCI-Exp	.218**	.236**	-.262**	.034	.362**	-.090**	-.853**	
Stress	.768**	.771**	-.386**	.137**	.057*	-.591**	-.190**	.209**

Note. SES: socioeconomic status; MAAS: Mindful Attention Awareness Scale; PCI: per capita income; MAAS: Mindful Attention Awareness Scale; PCI-Exp: per capita income exponential.
*$p < .05$; **$p < .01$.

For dichotomous variables, Student's *t* test was used and, as shown in Table 3, depression and anxiety rates were higher for women, homosexuals or bisexuals, single, individuals living with others and living with people from the risk group, those who perceive their relationship at home as conflictual, and those who were not working. Also, participants from the Southeast showed higher rates of depression when compared to people who live on the Northeastern. However, no significant differences were found in anxiety. People belonging to an at-risk group and those who declared themselves as non-white had higher rates of anxiety but not depression.

Table 3

Mean, Standard Deviation, and Mean Comparison Tests for Anxiety and Depression Symptoms According to Sociodemographic Factors

Variables	Anxiety		Depression	
	Mean ± SD	Comp.	Mean ± SD	Comp.
Gender				
Male	3.37 ± 4.28	−5.206**ᵗ	5.65 ± 5.21	−2.069*ᵗ
Female	4.78 ± 5.04		6.31 ± 5.57	
Sexual orientation				
Heterosexual	4.01 ± 4.61	−7.182**ᵗ	5.55 ± 5.16	−8.843**ᵗ
Non-heterosexual	6.65 ± 5.65		9.06 ± 6.05	
Race				
White	4.17 ± 4.69	−2.958**ᵗ	5.98 ± 5.38	−1.75ᵗ
Non-white	4.94 ± 5.19		6.48 ± 6.65	
Marital status				
Single	5.10 ± 5.10	5.812**ᵗ	7.39 ± 5.77	10.514**ᵗ
Not single	3.67 ± 4.53		4.59 ± 4.66	
Working situation				
Working	3.58 ± 4.16	−7.632**ᵗ	4.83 ± 4.66	−10.451**ᵗ
Not working	5.49 ± 5.47		7.71 ± 5.95	
Social distancing				
Adopted	4.69 ± 5.02	3.427**ᵗ	6.47 ± 5.60	4.192*ᵗ
Not adopted	3.73 ± 4.43		5.15 ± 4.98	
Risk group at home				
Yes	5.07 ± 5.26	−4.816**ᵗ	6.73 ± 5.81	−4.816**ᵗ
No	3.84 ± 4.26		5.62 ± 4.95	
Being at risk group				
Yes	4.90 ± 5.15	−2.250*ᵗ	6.31 ± 5.65	−.638ᵗ
No	4.28 ± 4.78		6.12 ± 5.42	
Region				
Southeast	4.73 ± 4.93		6.81 ± 5.66	
Northeast	4.20 ± 5.01		5.06 ± 5.06	
Midwest	5.09 ± 5.31	2.353ᶻ	7.13 ± 6.16	8.101**ᶻ
South	2.96 ± 4.04		4.88 ± 4.45	
North	3.00 ± 3.00		5.33 ± 3.51	
Abroad	2.43 ± 3.18		2.93 ± 2.67	

Note. Bonferroni's test was statistically significant ($p < .001$) only for the mean difference between Southeast and Northeast.

Comp. = mean comparison statistic; ᵗ = Student's *t* test; ᶻ = analysis of variances *z* test.

*$p < .05$; **$p < .01$.

After initial exploratory analysis, the variables that showed significant scores of Pearson correlation or Student's *t* test were selected as independent variables in two hierarchical regression models according to the stepwise method. In the first model, anxiety scores in DASS-21 represented the dependent variable, and depression was in the second one.

The best model to predict anxiety accounted for 26.6% of the variance and included: mindfulness trait, per capita income, sexual orientation, and gender. For depression, the best model explained 39.8% of the variance and was composed of mindfulness, working status, age, sexual orientation, and per capita income. Adequacy tests showed a good fit to the models chosen, without indicators of bias and multicollinearity: variance inflation factor between 1.016 and 1.204 and Durbin-Watson statistics values of 2,002 for depression and 2,027 for anxiety. Such results indicate an absence of multicollinearity and residue independence for both models (Hair et al., 2009).

Table 4

Hierarchical Linear Regression Models for Anxiety and Depression

Variables	B	SE	(β)	t
Anxiety				
Mindfulness	-2.071	.120	-.416	-17.210**
PCI-Exp	4.299	.660	.156	6.508**
SOR	2.018	.320	.153	6.312**
GEN	1.256	.283	.107	4.440**
Depression				
Mindfulness	-2.542	.127	-.547	-20.045**
WSS	1.654	.251	.149	6.592**
Age	-.061	.010	-.147	-6,200**
SOR	2.009	.327	.136	6.146**
PCI-Exp	3.105	.698	.101	4.448**

Note. B: non-standardized regression coefficient; β: standardized regression coefficient; PCI-Exp: per capita income exponential; SOR: sexual orientation; GEN: gender; WSS: working situation status. **p < .01.

The data was submitted to two propensity score matching procedures separately, according to the significant covariables indicated by the linear regression. In the first one, for anxiety, participants were matched for mindfulness, per capita income, sexual orientation, and gender. In the second, for depression, the matching covariates were mindfulness, per capita income, sexual orientation, age, and working status. Both matched samples were considered similar and adequate for subsequent comparisons. The Student's *t* test for both anxiety and depression symptoms showed no statistical significance (*t* = 0.948 and *t* = 0.159, respectively, with *p* > .05).

Discussion

This study aimed to estimate the frequency and factors associated with symptoms of common mental disorders at the beginning of social distancing caused by the pandemic of COVID-19 in a Brazilian sample. Results indicated an increase in symptoms of stress, anxiety, and depression, as well as the use of alcohol and other drugs, according to the responders. In addition, as it can be seen in tables 2 to 4, it was found that lower educational and socioeconomic status; female gender and non-heterosexual orientation; unemployment, work interruption, or loss of income; having conflicts at home; and belonging to the risk group or living with someone who does were associated with worsening of mental health indicators. In turn, people who were going out to work and, more especially, those with higher mindful traits were among the most protected. Most of the participants reported changes in daily routine and income loss due to the pandemic. The unemployment rate was already higher than before the pandemic (Instituto Brasileiro de Geografia e Estatística, 2020).

Considering signs of stress response to the pandemic, clinical levels of common mental disorders were higher than that reported by the World Health Organization (2017), even though Brazil already ranks among the countries with the highest rates worldwide (5.8% for depression and 9.3% for anxiety). Furthermore, .78% of the sample reported having attempted suicide during this period, which was higher than would be expected in typical times (between .1 and .2% per year, according to the Department of Informatics of the Unified Health System of Brazil (*Departamento de Informática do Sistema Único de Saúde* [DataSUS]) (Brasil, 2018). It is important to point that those who attempted suicide belonged mostly to the high-risk group and described themselves as black or brown (nine out of 12), presenting a higher concern with income (eight out of 12) and were not working (ten out of 12), in addition to presenting clinical levels of stress, depression, and anxiety. These results, observed in the first three weeks of the pandemic, may already be an indicator of a worsening in the general mental health of the sample, in both groups (following social distancing measures or not), due to fear or stress, income losses, and concerns with life and death.

Concerning risk and protection factors, regression analysis (Table 4) revealed mindfulness trait as the best predictor of both anxiety and depression. Several studies have shown the importance of the practice of mindfulness as a way of preventing psychological illness, with evidence of functional and even structural changes, in cases of frequent and lasting practice (Hölzel et al., 2011; Sala et al., 2019). Mindfulness seems to mediate the relationship between an individual's vulnerabilities, such as personality traits, and the development of internalizing disorders. It may also work as a strategy to prevent relapses in psychotherapy and influence prognosis (Hölzel et al., 2011). Given these points, it is reasonable to conclude that mindfulness would be the most effective protective factor against the increase of anxiety and depression symptoms during the pandemic.

Beyond individual-level factors, lower socioeconomic status and non-heterosexual orientation predicted both anxiety and depression. The minority stress theory points that minority

groups are more susceptible to suffering since they tend to experience interpersonal and structural discrimination, being more vulnerable and having less family support. In the present study, non-heterosexual participants (i.e., homosexuals and bisexuals) showed increased anxiety and depression rates when compared to others. This may be related to the distance from peers and having to spend more time with family members, with whom they may have less acceptance or more conflicts. Some had not had a conversation with their family members about their sexual orientation yet, and the extended contact with them may impose the need to hide it, which is related to the worsening quality of life and mental health indicators (Feinstein et al., 2014).

As expected, income explained a higher percentage of anxiety variance than depression, indicating an immediate response to a circumstantial stressor. Low-income status can be associated with less space at home and a consequent increase in the chances of contagion and conflicts, more susceptibility to unemployment and may also lead to less access to resources for protecting themselves and family members from COVID-19 infection (Instituto Brasileiro de Geografia e Estatística, 2020; Drydakis, 2015; Kim & von dem Knesebeck, 2015).

Depression was also predicted by work status and age, with fewer symptoms in older people and those who were working. National and international studies indicate work as a health operator, suggesting that the unemployed are the most stressed group (Kim & von dem Knesebeck, 2015; Argolo & Araújo, 2004). Regarding age, reasons for more symptoms in younger people could be associated with developmental patterns on personality. The Big Five Theory (Mansur-Alves & Saldanha-Silva, 2019) presupposes the existence of five innate traits, which combine with the life history to form idiosyncratic ways of thinking, feeling, and acting. Among the five innate traits, neuroticism is the one that, when combined with a life history marked by stressors, tends to lead to the development of common disorders such as anxiety and depression. As the average levels of neuroticism tend to decrease with age, it is possible that such a reduction is accompanied by a reduction, also, in the levels of anxiety and depression (Wortman et al., 2012). An alternative explanation for the drop in depressive symptoms with aging could be that it is possible that while responding to the questionnaire older people were not comfortable admitting mental health issues on self-report measures (Twenge et al., 2019).

Moreover, results showed women as more vulnerable to clinical symptoms of anxiety, congruent to several studies (Goularte et al., 2021; Liu et al., 2020; Özdin & Özdin, 2020). This could be explained by differences in brain chemistry and hormone fluctuations, as well as life events and cultural differences. Women are more likely to ruminate about life stressors, increasing their anxiety, while men engage more in problem-focused coping. Besides, females also experience more physical, sexual, and psychological abuse, which has been correlated to the development of anxiety disorders and changes in brain chemistry and structure (Liu et al., 2020; Wang et al., 2020; World Health Organization, 2017).

Contrary to the expected, social distancing showed no impacts on levels of depression or anxiety. It is important to consider that questionnaires were answered after only three weeks of isolation measures, and, perhaps, more changes could be perceived after a longer period since

the adoption of social distancing. Otherwise, the rates of these disorders in both groups were higher than in official data from before the pandemic (World Health Organization, 2017), which suggests that the pandemic itself could be associated with this general increase of symptoms in both groups since it leads to unstable health and economic status for the general population.

The present study brought information about the levels of common disorders in the Brazilian population after three weeks of social isolation, having a large and representative sample of Southeast and Northeast Brazil. Traditionally marginalized groups (non-heterosexual, with lower income per capita, and unemployed) were more susceptible to the effects of the pandemic, having experienced a distinguished increase in symptoms of common disorders.

DASS-21 and MAAS scales were not applied in this sample before the onset of the pandemic, which incurs that a baseline value could not be assessed, not allowing an accurate pre-/post-analysis. Knowing that all participants of the present study were invited by convenience through social media, one limitation is that the invitation may have been attractive to those who were already suffering during social distancing, making this study prone to selection bias. Besides, this sample does not represent all the regions of the country since 93.6% of the participants belong to only two of the five regions (Southeast and Northeast) and were composed of those from higher socioeconomic status, when in fact, it does not represent the Brazilian population. Studies investigating extended social distancing periods with a longitudinal design are also needed to understand if other risk and protective factors could be perceived. Moreover, they could investigate the effects of economic downturns or personal income losses and grief over family and friends in mental health during long periods of social distancing.

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