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Behavioral Sciences

Meta-Worry, Anxiety, and Depression in the COVID-19 Pandemic (Brazil, March 2020)

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ABSTRACT – This study evaluated the relationship between meta-worries and anxiety and depressive symptoms at the beginning of the COVID-19 pandemic in Brazil. In March 2020, 2,042 individuals, aged 18–78 years were recruited. A sociodemographic questionnaire, the 4-item Patient Health Questionnaire, and the Meta-Worry Questionnaire were administered online. Four logistic regression models were used to estimate the effects of the independent variables on anxiety and/or depressive symptoms with explained variances between 28% and 39%. Being younger, not having a steady income, perceiving oneself as sick, and having a high meta-concern level increased the chances of anxiety and/or depressive symptoms. Finally, we hope to contribute to the screening of factors associated with mental disorders in Brazil at the beginning of the pandemic.

KEYWORDS: Anxiety, Depression, Meta-worry, COVID-19

Metapreocupação, Ansiedade e Depressão na Pandemia de COVID-19 (Brasil, Março de 2020)

RESUMO – Esta pesquisa avaliou relações entre metapreocupações e sintomas ansiosos e/ou depressivos no início da pandemia de COVID-19 no Brasil. Participaram 2042 indivíduos, entre 18 e 78 anos, na segunda quinzena de março de 2020. Um questionário sociodemográfico, o *4-item Patient Health Questionnnaire* e o *Meta-Worry Questionnnaire* foram respondidos *online*. Quatro modelos de regressão logística foram utilizados para estimar o efeito das variáveis independentes nos sintomas ansiosos e/ou depressivos, com variâncias explicadas entre 28% e 39%. Ser mais jovem, não ter renda fixa, perceber-se doente e alto índice de metapreocupação aumentaram as chances de demonstrar sintomatologia ansiosa e/ou depressiva. Por fim, espera-se ter contribuído com o mapeamento de fatores associados à transtornos mentais no início da pandemia no Brasil.

PALAVRAS-CHAVE: Ansiedade, Depressão, Metapreocupação, COVID-19

The International Health Regulations (World Health Organization [WHO], 2005, p. 9) state that a Public Health Emergency of International Concern (PHEIC) is an extraordinary event that "(i) constitutes a public health risk to other countries due to the international spread of diseases and (ii) potentially requires a coordinated international response." Considered the highest level of alertness by the WHO, PHEICs have only occurred earlier during the H1N1 pandemic (2009), the international spread of poliovirus (2014), the Ebola outbreaks (2014 and 2018), and the increase in cases of microcephaly and congenital malformations caused by the Zika virus (2016) (Pan-American Health Organization [PAHO] & WHO, 2020).

With the outbreak of the most recent human coronavirus disease, the world is currently dealing with the sixth PHEIC (PAHO & OMS, 2020). There are seven human coronaviruses, three of which can cause severe respiratory tract infections: SARS-CoV, MERS-CoV, and the current SARS-COV-2, which are responsible for COVID-19 (PAHO & WHO, 2020). COVID-19, which is expected to cause more than one million fatalities by early November 2020, has prompted nations worldwide to implement isolation and social distancing measures to prevent further spread and restrict its spread, and viable techniques for prevention and treatment are being investigated (Faro et al., 2020; PAHO & WHO, 2020).

Widespread outbreaks of infectious diseases such as COVID-19, are associated with psychological distress and symptoms of mental illness. Until the three six months of 2020, most existing studies were conducted in China (Huang & Zhao, 2020), the first epicenter of the pandemic as we write. Until then, mainly anxiety disorders associated with COVID-19 occurrence were detected; these were further found in more than 200 countries on all continents (Bello et al., 2022; COVID-19 Mental Disorders Collaborators, 2021; Delpino et al., 2022; Dettmann, 2022). Evidence from previous studies on events like COVID-19, such as MERS-CoV and SARS-CoV, show that measures to separate and restrict the flow of people have a massive impact on mental health, causing negative psychological outcomes such as CMD (Brooks et al., 2020; Jiloha, 2020). Symptoms of stress, irritability, insomnia, post-traumatic stress disorder, depression, anxiety, substance abuse, suicide attempts, and self-injury behaviors are frequently observed in healthcare professionals and in the general population who, in this type of stressful situation, worry about uncertainties regarding the future and have an intense fear of the risks of contagion and death (Brooks et al., 2020; Faro et al., 2020). In a study including 1210 participants (January and February 2020), higher rates of anxiety and depression were associated with women, students, people with symptoms suggestive of COVID-19, and those with poor health perceptions, while the availability of information and engagement in preventive behaviors, such as hand washing, seemed to soften these effects (Wang et al., 2020).

People with suspected COVID-19 are more likely to have depressive symptoms and a lower quality of life than those without the disease (Nguyen et al., 2020). The concept of anxiety is based on a tripartite structure formed by worry, fear, and uncertainty, all of which are present during the current pandemic situation (Barari et al., 2020; COVID-19 Mental Disorders Collaborators, 2021; Dong & Bouey, 2020; Faro et al., 2020; Kong et al., 2020). The current context is marked by the experience of uncertainty regarding an effective vaccine or treatment for COVID-19 and expectations regarding the end of this pandemic. Simultaneously, besides social isolation, there is a fear of contagion, death itself, or the death of significant others. Finally, the third facet of anxiety is fueled by worry about what is expected in the post-pandemic future.

Worrying is a cognitive activity involving a negative, repetitive thinking style regarding future events (Anyan et al., 2020). In the metacognitive model of Generalized Anxiety Disorder and Excessive Worry proposed by Wells (2005), worry is divided into two types: (1) worry about external elements, which tends to be functional rather than pathological, and (2) worry related to one's thoughts and concerns, called meta-worry. Meta-worry arises when worry becomes excessive and the individual, to reduce or manage it, intensifies general worry itself.

Generally, high levels of worry can trigger different psychiatric symptoms, many of which are related to common mental disorders such as anxiety or depression (Ren et al., 2020). During the COVID-19 outbreak, media exposure to information may trigger both unrealistic optimism and negative thoughts, which can accentuate distorted predictions about health or even exaggerate worrying (Faro et al., 2020). Studies investigating the relationship between worry and mental health have shown that outcomes related to anxiety and depression are common in the context of excessive worrying (Huang & Zhao; 2020; Wang et al., 2022).

The ongoing pandemic of COVID-19 induced fear, uncertainty, and worry, which has led to the need for a timely understanding of its repercussions on people's health status and psychological adjustment. In Brazil, for instance, no information has been found on the psychological impact and mental health of the public during the initial period of the COVID-19 epidemic, which corresponds to March 2020 (Duarte et al., 2020). This is especially relevant because of the uncertainties surrounding an outbreak of an incomparable magnitude in recent history, which makes it pertinent to understand how this situation affected the mental health of the population at the beginning of the period of social isolation and quarantine due to COVID-19. Based on information from that initial moment, more effective actions can be undertaken with a preventive character or even better structuring of healthcare can be conducted throughout the crisis. Additionally, some sociodemographic characteristics appear to be associated with greater mental distress and concerns during the pandemic, such as gender (Herrera-Añazco et al., 2022), age (Sojli et al., 2021; Wilson et al., 2020), employment (Chandola et al., 2020; Kraut et al., 2022), interpersonal relationships (Liu et al., 2020; Pancani et al., 2021), and some clinical diseases or self-perception of being ill (Wang et al., 2020).

This study evaluated the relationship between meta-worries and anxiety and depressive symptoms at the beginning of the COVID-19 pandemic in Brazil (March 2020). First, the occurrence of anxiety and depressive symptoms was estimated, and the levels of meta-worry were calculated. Finally, we tested a predictive model in which meta-worrying explained the variability in anxiety and/or depression symptoms in the Brazilian population.

METHOD

Participants

In March 2020 (from 19th to 21st), 2042 Brazilians of both sexes, ranging in age from 18 to 78 years, participated in the study. Most of the participants were from the northeast (80%, n = 1634), followed by the southeast (14.1%, n = 288), and other regions (5.9%, n = 120). In the northeast area, Sergipe was home to 74.6% of the participants (n = 1219). Sampling

was convenience-based, non-probabilistic, and conducted online. The only established inclusion criterion was the age of > 18 years. In the State of Sergipe, which makes up most of the sample, the government decreed that a public health emergency was issued on March 17. For the Southeast region, which concentrated the second largest part of the sample, the state of São Paulo decreed it on March 20, the state of Minas Gerais on March 15, the state of Rio de Janeiro on March 16, and the state of Espírito Santo on March 17. In other regions, the dates varied between March 16 and 19.

Instruments

A sociodemographic questionnaire was used with the following variables: sex (male or female), age (years), skin color (white, black, or brown; yellow and indigenous people were excluded from the final sample because of their small occurrence), education (up to high school or higher education), living alone (no or yes), chronic disease (no or yes), income (with or without steady income), health perception (ill or healthy), municipality, and state of living (place of residence).

The Meta-Worry Questionnaire (MWQ), developed by Wells (2005) was used. The Portuguese version of the MWQ was adapted and validated by Dinis and Gouveia (2011), with good internal consistency ($\alpha = 0.89$). The instrument includes seven items in the form of questions assessed separately on two scales that assess the frequency of metacognitions of worry and the degree of beliefs related to them. In the current study, only the scale that evaluated the frequency of meta-worry was used because of the intention to conduct a brief mental health screening and, therefore, the need for the smallest possible research instrument. "I'm going to go crazy worrying so much," "My worry won't stop growing and I will stop working," "I'm going to make myself sick from worrying," "This worry is abnormal," "My head can't take so much worry," "I am no longer living because of my concerns," and "My body can't handle worrying so much" are the items that measure the frequency of meta-worries. Answers are obtained using a 4-point Likert scale, ranging from "never" (1) to "always" (4). The score was obtained by adding the answers to all items, indicating that the higher the frequency of meta-worry, the greater the probability of being dysfunctional. In this study, the instrument showed high internal consistency (Cronbach's alpha [α] = 0.90).

To identify symptoms of anxiety and/or depression, we used the 4-item version of the Patient Health Questionnaire (PHQ-4) developed by Kroenke et al. (2009). In the initial study, the instrument showed good internal consistency ($\alpha = 0.75$). The PHQ-4 is an ultra-short screening questionnaire that assesses the frequency of symptoms of anxiety and/or depression over the preceding two weeks, with responses scored on a 4-point Likert scale, ranging from "never" (0) to "almost every day" (3). It should be emphasized that this scale identifies signs of anxiety and depression and does not diagnose mental disorders. The total score is obtained by the separate sum of the responses to the items referring to the symptoms of anxiety ("feeling nervous, anxious, or very tense" and "not being able to prevent or control worries") and depression ("feeling down, depressed, or without perspective" and "little interest in or little pleasure in doing things"), where a score of three indicates significant signs of anxiety and/or depression disorders. In the current study, we applied a cutoff score of three because this survey only aimed to screen for significant symptoms of anxiety or depressive disorders. The PHQ-4 showed satisfactory reliability ($\alpha = 0.84$).

Procedures and Ethical Aspects

The survey was conducted in the second half of March 2020 (19^{th}–21^{st}), at the beginning of the quarantine period, and social isolation was imposed. Data were collected using convenience and snowball sampling through invitations sent via social networks, mainly Facebook, WhatsApp, and Instagram. The study was approved by the CONEP, the National Research Ethics Committee, under approval number [omitted for evaluation]. The online questionnaire was directed at the general population, and the public was asked to forward the survey to others in their social lives. A Free and Informed Consent Form was provided at the beginning of the questionnaire, which could be completed only if the individual agreed to participate. According to the intent of a short screening, the average response time was 7 min, and the data originated from automatic registration of the platform used for data collection.

Data analysis

Data adjustment and analysis were performed using SPSS (*Statistical Package for Social Sciences*, version 23). The final instrument scores were obtained using descriptive analyses (absolute and percentage frequencies, means, and standard deviations). Four Binomial Logistic Regression models (Backward LR method) were used to estimate the effects of the independent variables: sex, skin color, education, living alone, chronic illness, age (categorized by quartiles of up to 24 years, 25–30 years, 31–39 years, and over 39 years), income, health perception, and meta-worry (dichotomized by the mean above the mean and up to the mean) for symptoms of anxiety and depression.

PHQ-4 screening diagnoses were categorized by combining the presence of a single or simultaneous diagnosis (i.e., anxiety, depression, and just one or both diagnoses). Thus, each group was used as a dependent variable (presence or absence of symptoms) in four separate logistic regression models. The following indicators were observed in the evaluation of each model: Omnibus test (expected to be statistically significant), Nagelkerke's R^2 (the higher the better, corresponding to the explained variance of the final model), the Hosmer-Lemeshow test (expected not to be statistically

significant), and the correct predictive capacity of the model (expected around 70%). A multicollinearity assessment was performed for all models and no problems were found in the composition or final solutions of the models. All Odds Ratio (*OR*) values below 1 were converted using the formula 1/*OR* to standardize the description of the findings. Significance was set at $p < 0.05$ for all steps of binomial and multinomial regressions.

RESULTS

The sample consisted of 75.9% (*n* = 1549) females, with a median age of 30 years. Most participants (87.7%; *n* = 1790) did not live alone; that is, they shared their residence with someone (family member or friend), and 45.5% (*n* = 929) declared that they were brown skin color. Regarding education, 82.8% (*n* = 1691) had a higher education degree (completed or student) and 72.6% (*n* = 1483) had a steady income. Finally, most participants perceived themselves as healthy (81.4%; *n* = 1662) (Table 1).

On the meta-worry scale (*Mean* [*M*] = 12.5, *Standard Deviation* [*SD*] = 4.90), 41% (*n* = 837) of the participants scored above the mean, and 59.0% (*n* = 1205) scored values up to the mean. Regarding anxiety or depression symptoms (cutoff score 3), 36.2% (*n* = 739) had symptoms suggestive of anxiety, 24.8% (*n* = 506) had symptoms suggestive of depression, 42.8% (*n* = 873) had symptoms suggestive of just one diagnosis (anxiety or depression), and 18.2% (*n* = 372) had both symptoms. In the full sample, 57.2% (*n* = 1169) of the participants did not show any significant symptoms of anxiety and/or depression.

Logistic Regressions

Four binomial logistic regressions were performed: one for each of the PHQ-4 outcomes and two for possible combinations of these outcomes. Table 2 shows the results of each model and their adjustment indicators, which were all satisfactory, showing a high predictive capacity and explained variance. No multicollinearity issues were found between the variables in any model. Regarding the first model related to anxiety symptoms, younger people (up to 24 years old) showed 1.6 more chances of having symptoms than those over 39 years old (*OR* = .6; 1/*OR* = 1.5). Individuals who reported not having a steady income were more likely to have anxiety symptoms than those who had a steady income (*OR* = 1.4), and those who perceived themselves as ill showed more chances of having symptoms suggestive of anxiety than those who perceived themselves as healthy (*OR* = 2.1). The meta-worry variable showed that those who scored above the mean had a 12-fold higher chance of experiencing anxiety symptoms than those who scored above the mean (*OR* = 12.0).

Table 1
Sociodemographic profile, Brazil, March 2020 (n = 2042)

Variable	Category	%	n
Gender	Female	75.9	1549
	Male	24.1	493
Age (years old)	Up to 24 years old	28.5	582
	25-30	23.6	482
	31-39	23.1	472
	Over 39	24.8	506
Skin color	White	44.1	901
	Brown	45.5	929
	Black	10.4	212
Education	Higher education in progress or complete	82.8	1691
	Secondary education level	17.2	351
Income	Steady Income	72.6	1483
	Do not have it	27.4	559
Living alone	No	87.7	1790
	Yes	12.3	252
Health Perception	Ill	18.6	380
	Healthy	81.4	1662

Notes. % = relative frequency; *n* = quantity of participants.

Table 2
Indicators of Binomial Logistic Regressions for symptoms of anxiety and depression in the PHQ-4, Brazil, March 2020 (n = 2042)

Binomial Regressions		Odds Ratio (OR)	1/OR	p-value
Anxiety[1]				
Age	Up to 24 years old	1	-	-
	Over 39	0.6	1.6	0.005
Income	With steady income	1	-	-
	Without steady income	1.4	-	0.002
Health	Healthy	1	-	-
	Ill	2.1	-	< 0.001
Meta-worry	Up to the mean	1	-	-
	Above the mean	12	-	< 0.001
Depression[2]				
Age	Up to 24 years old	1	-	-
	25-30	0.6	1.6	0.003
	31-39	0.5	2.0	< 0.001
	Over 39	0.4	2.5	< 0.001
Health	Healthy	1	-	-
	Ill	2.4	-	< 0.001
Living alone	No	1	-	-
	Yes	1.4	-	0.044
Meta-worry	Up to the mean	1	-	-
	Above the mean	6.6	-	< 0.001
Anxiety or depression[3]				
Age	Up to 24 years old	1	-	-
	31-39	0.5	2.0	0.013
	Over 39	0.5	2.0	< 0.001
Income	With steady income	1	-	-
	Without steady income	1.3	-	0.019
Health Perception	Healthy	1	-	-
	Ill	2.4	-	< 0.001
Meta-worry	Up to the mean	1	-	-
	Above the mean	11.4	-	< 0.001
Anxiety and depression[4]				
Age	Up to 24 years old	1	-	-
	31-39	0.5	1.8	0.001
	Over 39	0.5	1.9	< 0.001
Income	With steady income	1	-	-
	Without steady income	1.3	-	0.038
Health Perception	Healthy	1	-	-
	Ill	2.4	-	< 0.001
Meta-worry	Up to the mean	1	-	-
	Above the mean	12.7	-	< 0.001

Notes. * Variables without statistical significance in each model were excluded from the Table.
1. Outcome anxiety symptomatology: Omnibus test = 692.120 ($p < 0.001$). Hosmer-Lemeshow Test $X^2 = 2.408$ ($p = 0.966$). Nagelkerke's $R^2 = 0.394$ (39.4%). Percentage of cases correctly predicted = 78.6%.
2. Outcome depression symptomatology: Omnibus test = 433.151 ($p < 0.001$). Hosmer-Lemeshow Test $X^2 = 9.343$ ($p = 0.229$). Nagelkerke's $R^2 = 0.284$ (28.4%). Percentage of cases correctly predicted = 77.5%.
3. Outcome anxiety or depression symptomatology: Omnibus test = 719.579 ($p < 0.001$). Hosmer-Lemeshow Test $X^2 = 1.543$ ($p = 0.992$). Nagelkerke's $R^2 = .399$ (39.9%). Percentage of cases correctly predicted = 78.2%.
4. Outcome anxiety and depression symptomatology: Omnibus test = 475.575 ($p < 0.001$). Hosmer-Lemeshow Test $X^2 = 6.481$ ($p = 0.594$). Nagelkerke's $R^2 = .339$ (33.9%). Percentage of cases correctly predicted = 83.3%

In the outcome related to depressive symptoms (second model), younger people (up to 24 years old) showed more chances of having symptoms compared to all age groups of older people: concerning those between 25 and 30 years old, they showed 1.6 more chances (*OR* = 0.6; 1/*OR* = 1.6), those between 31 and 39 had two times more chances (*OR* = 0.5; 1/OR = 2), and those over 39 had 2.5 times more chances (*OR* = .4; 1/*OR* = 2.5) of presenting depressive symptomatology. Those who perceived themselves as ill were 2.5 times more likely to have depressive symptoms than those who perceived themselves as healthy (*OR* = 2.4). Those who reported living alone were approximately 1.5 times more likely to have depressive symptoms than those who did not (*OR* = 1.4). Regarding meta-worries, those who scored above the mean on the scale showed approximately 6.5 more chances of symptomatology suggestive of depression than those who scored up to the mean (*OR* = 6.6).

In the third model, related to the outcome of just one diagnosis (anxious or depressive symptoms), the youngest (up to 24 years old) showed 1.5 more chances of having one symptomatology compared to those between 31 and 39 years old (*OR* = 0.7; 1/OR = 1.4), and two times more chances compared to those over 39 (*OR* = 0.5; 1/OR = 2). Regarding income, those who did not have a steady income were more likely to have any of the set of symptoms compared to those who had a steady income (*OR* = 1.3), and those who perceived themselves as ill compared to those who perceived themselves as healthy (*OR* = 2.4). Those who scored above the mean on the meta-worry scale were about 11.5 times more likely to have symptoms suggestive of anxiety or depression than those who scored up to the mean (*OR* = 11.4).

Finally, in the outcome related to having both sets of significant symptomatology (fourth model), those who were up to 24 years old were two times more likely to present with them than both groups between 31 and 39 years old and compared to those who were over 39 years old (*OR* = 0.5; 1/OR = 2). Not having a steady income and perceiving oneself as ill increased the chances of anxiety and depressive symptoms compared to those who had a steady income (*OR* = 1.3) and perceived themselves as healthy (*OR* = 2.4). Those who scored above the mean on the meta-worry scale were approximately 13 times more likely to have both sets of symptoms than those who scored below the mean (*OR* = 12.7).

DISCUSSION

This study aimed to evaluate the association between meta-worry and significant anxiety and depressive symptoms in the Brazilian population at the beginning of the COVID-19 pandemic. It is noteworthy that all models were considered robust, with a relatively high explained variance (approximately 40 %) and high values for correctly predicted cases. Consistency was also observed in the explanatory variables, which did not vary significantly depending on the outcome.

Anxiety and depression symptomatology levels can be considered high in this sample (more than 30% and almost 25%, respectively), which follows a tendency noted in other countries during the first half of 2020 (COVID-19 Mental Disorders Collaborators, 2021). This finding reiterates the early harmful repercussions of the pandemic on mental health (Delpino et al., 2022; Dettman et al., 2022), especially considering that almost 40 percent of the participants fulfilled the criteria for one screening diagnosis and almost 20 for both. In addition, we found that basic characteristics related to age, steady income, perception of health, and meta-worry predicted the greatest predisposition to presenting symptoms of anxiety and depression. Living alone is a significant explanatory variable for depression.

We observed that the chances of younger people presenting with symptoms in all outcomes were higher. In all models evaluated, the group of those who were up to 24 years old was more vulnerable to anxiety and/or depressive symptoms at the time of data collection. Younger people generally have less experience with different psychosocial stressors than older people, and some of these stressors seem to be aggravated in the current pandemic scenario (Bruin, 2021; Sojli et al., 2021; Wilson et al., 2020). For example, the younger you are, the more likely you are to be at the beginning of your professional career still looking for financial stability, which increases the probability of not having a steady or regular income (Huang & Zhao, 2020; Liu et al., 2020). A steady income was also a variable present in all outcomes (except in depression). It is also worth noting that the current findings came up in a scenario two months after the start of the adoption of quarantine and social distancing measures (period of data collection); in other words, in a situation in which stressors related to unemployment and income were already feared and shared socially (Chandola et al., 2020; Ettman, 2020; Kraut et al., 2022).

Another important variable was the perception health. The results showed that those who perceived themselves as ill were more likely to experience anxiety and/or depressive symptoms. Participants who already had previous health issues or vulnerability seemed, on average, to have twice the chance of developing symptoms of anxiety or depression. Because of the daily stress related to day-to-day life during the pandemic, to which they had already been exposed for two months at the beginning of the confinement, individuals who declared their perception of health as deteriorating may have already had some differentiated vulnerability. Poor health perception was associated with higher rates of depression and anxiety during the COVID-19 pandemic and in other studies as well (Wang et al., 2020; Wang et al.,

2022), especially if the perception of illness was related to suspected contagion by the coronavirus (Huang et a., 2020; Kraut et al., 2022; Nguyen et al., 2020), which reinforces the consonance of this finding with previous evidence.

Living alone, which refers to the perception of less social support, only increases the chances of depressive symptoms. The literature shows that individuals who live alone are less likely to share their worries and fears throughout the pandemic, except through electronic devices (Liu et al., 2020; Pancani et al., 2021). Thus, it seems plausible to think that if affected by COVID-19, these individuals seem to have a lower perception that they would eventually obtain support to deal with the disease.

Finally, the main explanatory variable was meta-worry, which considerably increased the chances of symptoms for the two possible outcomes, reaching almost 13 times more chances of the presence of symptoms of anxiety and depression. In terms of diagnosis, meta-worry is a key element of anxiety symptoms, and the pandemic scenario seems conducive to the development of different worries, such as fear of contagion, death itself, or loved ones, in addition to imposed social isolation (Brooks et al., 2020; Faro et al., 2020; Liu et al., 2020; Pancani et al., 2021; Rauschenberg et al., 2021). In this regard, outcomes related to symptoms of anxiety and depression are common in contexts associated with excessive meta-worrying (Wang et al., 2022) and studies have shown vulnerability to these conditions in people who spend a considerable amount of time with cognitions related to the pandemic (Huang & Zhao, 2020). During epidemic periods, the number of people whose mental health is affected tends to be greater than the number of people affected by the disease and tends to outlast the epidemic itself (Shigemura et al., 2020). This brings to the agenda, in the Brazilian context, the topic of excessive worry.

We expected broad participation and coverage in that specific period of the pandemic, which was satisfactorily accomplished, but with several caveats about the extrapolation of the findings. The first limitation of the current study is that the sample is not directly generalizable given its non-randomization, electronic procedures of data collection, and sharing methods of the research invitation. Another aspect is that the results were obtained mainly in northeast Brazil and with groups with specific demographic characteristics, that is, women and a high level of education. Furthermore, although meta-worry is an important explanatory variable, other potentially important mediators were not measured, such as tolerance of anxiety and coping strategies, making it impossible to investigate whether, even with a high level of meta-worry, such variables would mitigate the chance of belonging to positive groups. Future studies should include mediators to better understand the predictive capacity of meta-worry for anxiety and depression. Considering the different phases of social isolation and the consequences of the pandemic, it seems pertinent that longitudinal studies monitor the impact of social isolation on the mental health of individuals during and after the pandemic.

It should also be noted that the instrument used in this study to identify anxiety and depressive symptoms, even if it had good psychometric indicators, may not be as specific as expected for detecting clinically relevant symptoms; it is worth emphasizing that it is an instrument for rapid screening and not a clinical diagnosis. In our case, considering the urgency for giving a first "screenshot" of the pandemic repercussions on the mental health of the Brazilian population, this screening scale was the most plausible option for that moment. Future studies should include variables related to the actual diagnosis of mental disorders, allowing inferences to be made regarding these clinical conditions during the post-pandemic period.

Finally, given the global scenario, which is critical and largely unknown in 2020, particularly in Brazil, the importance of monitoring the mental health of the Brazilian population is clearly emphasized. Therefore, we believe that screening that focuses on detecting and proposing interventions for psychological adjustment is essential and should be part of public health policy proposals. Such objectives may allow us to deal more effectively with the COVID-19 effects on mental health and psychological well-being in the present and the long term.

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