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Age and sex differences in the impact of the COVID-19 pandemic on mental health and coping mechanisms in Latin American youth

Rosa Elena Ulloa a,*, Rogelio Apiquian b, Francisco R. de la Peña c, Ricardo Díaz d, Pablo Mayer e, Juan David Palacio f, Lino Palacios-Cruz f, Andrea Hernández h, Pamela García h, Marcos F. Rosetti g, Andrea Hernández h, Pamela García h, Marcos F. Rosetti g

a Hospital Psiquiátrico Infantil Dr. Juan N. Navarro, Servicios de Atención Psiquiátrica, Secretaría de Salud, México
b Centro de Investigación en Ciencias de la Salud (CICSA), Facultad de Ciencias de la Salud, Universidad Anáhuac México
c Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz, México
d Arette Proyectos, México
e Universidad Autónoma Metropolitana Lerma, México
f Universidad de Antioquia, Medellín, Colombia
g Instituto de investigaciones Biomédicas, Universidad Nacional Autónoma de México, Mexico City, México
h Universidad Anáhuac Puebla, Escuela de Medicina, México

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ABSTRACT

Background: The COVID-19 pandemic has had negative effects on mental health. Understanding sex and age differences in the perception of stressors, the use of coping strategies, and the prevalence of depression and anxiety can lead to detecting at-risk groups.

Methods: A cross-sectional online study surveyed perceived stressors, coping strategies, and the PHQ-9 and GAD-7 rating scales for symptoms of depression and anxiety. The study was open from Spring 2020 to Spring 2021 and was aimed at children, adolescents and young adults of Latin America.

Results: The survey was completed by 3965 participants (63.8% females). The sample was divided into children (N = 621, 15.7%), adolescents (N = 1123, 28.3%) and young adults (N = 2021, 56%). Moderate to severe symptoms of depression and anxiety were found in 43.53% and 27%, respectively, being more frequent in females. Children of both sexes showed the lowest scores in rating scales. Adult females reported a higher level of stress in regards to pandemic news, having someone close diagnosed with COVID-19, the possibility of getting sick, academic delays, economic impact, and depression, while female adolescents reported a higher level of stress regarding the lockdown, losing contact with peers and anxiety. In juxtaposition, females also reported a higher frequency of positive coping strategies. A multivariate analysis confirmed the association of several variables with the presence of depression and anxiety.

Conclusion: A high prevalence of depression and anxiety was found among young people. Specific intervention programs must be created taking into account age and sex differences.

1. Introduction

In November 2019, the first human case of COVID-19 caused by SARS-CoV-2 was reported in Wuhan, China. In the following months, the virus spread across the globe, forcing numerous countries into lockdown and shutting down non-essential activities. By June 2022, the World Health Organization (WHO) had reported over 535 million cases and 6.32 million deaths worldwide (World Health Organization). Strategies to mitigate COVID-19 transmission, and stressors such as inadequate or insufficient information, fears of getting sick, financial loss, and long quarantine duration fostered mental health problems, such as depression and anxiety (Brooks et al., 2020).

The effects of the stress resulting from the COVID-19 pandemic have been reported in children, adolescents, and young adults in different countries. Studies from China (Duan et al., 2020; Liu et al., 2020; Ma et al., 2021; Wang et al., 2020; Xie et al., 2020), India (Saurabh and Ranjan, 2020), the United States of America (Hawes et al., 2021), Canada (Cost et al., 2021), Australia, (Li et al., 2021), Spain (Lavigne-Cerván et al., 2021) and Germany

* Corresponding author. Hospital Psiquiátrico Infantil Dr. Juan N. Navarro, Secretaría de Salud, México.
E-mail address: eulloa@hotmail.com (R.E. Ulloa).

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(Ravens-Sieberer et al., 2021) have shown that a large percentage of the population manifested symptoms of depression (from 7.2% to 62.1%) and anxiety (from 18.9% to 66.9%). Staying at home for extended periods, not attending school, lack of interaction with peers, having a family member or friend become infected with COVID-19, and limiting physical activity were identified as the main stressors in this age groups (Duan et al., 2020; Ravens-Sieberer et al., 2021; Yossmin et al., 2020). In addition, being female was associated with an increased risk of developing depression and anxiety (Moccia et al., 2020; Wathelet et al., 2020).

The frequencies of some maladaptive behaviors among the general population during the pandemic were also examined. Non-suicidal self-injuries (NSSI) were reported in 42% of children and adolescents (Zhang et al., 2020) and in 7%-9% of adults (Paul and Fancourt, 2022); while substance use was reported in 25%-30% of adolescents (Larrea-Schiavon et al., 2021; Dumas et al., 2020) and adults (Czeisler et al., 2020; Horigian et al., 2021). Meanwhile, positive coping strategies, such as the use of preventive measures (e.g., hand washing, social distance), or exercising, demonstrated a protective effect against stress, anxiety, and depression (Alkhamees et al., 2020; de Abreu et al., 2022; Peng et al., 2022).

Latin America, a region that includes low- and middle-income countries with more youths than adults and scarce mental health services, has suffered from particularly negative outcomes during the current pandemic, with more than 155 million registered cases, over 2.7 million deaths (WHO, 2022) and a drop of 8.5% in the gross domestic product (International Monetary Fund, 2022). These issues underlie the importance of examining the impact of the pandemic on the mental health of people in this region of the world, considering that only reports from individual countries are available (Canet, 2020; Larrañaga et al., 2021; Rusca-Jordan et al., 2020).

To examine the impact of the pandemic on mental health, as well as the coping strategies in young people, we performed an online study based on a self-reporting questionnaire and targeted various Latin American countries. The aims of this research were a) to evaluate age and sex differences in the frequency and severity of symptoms of depression and anxiety, b) to examine age and sex differences in the perceived stressors and coping strategies and, c) to identify which perceived stressors and coping strategies are associated with the presence of depression and anxiety.

2. Material and methods

The study was approved by the Institutional Review Board of participant institutions which examined the research methods to ensure that they fulfilled the statement of ethical principles in the Declaration of Helsinki. This survey was conducted from April 2020 to April 2021. Data was gathered via Google Forms, a survey management software that is included in the Docs Editors suite offered by Google (Google, 2021). The survey was aimed at respondents between the ages of 8–24 years, whose answers were anonymous.

The sample was obtained using the snowball sampling method, which is based on referrals from initial subjects to generate additional participants. This method facilitates recruitment by asking respondents and key contact persons such as teachers and health professionals to share the questionnaire with their friends and family through social networks (Dudovskiy, 2022). The questionnaire contained an informed consent section explaining the study purpose, procedures, risks, and benefits. Consent to participate in the study was confirmed by selecting a checkbox. In the case of minors two checkboxes were displayed (one for the parent and one for the child) and respondents were able to proceed only after both boxes were checked. The survey form design did not allow the participant to leave any item unanswered. Responses were automatically saved to a Google spreadsheet. To prevent automated answers, the participants’ country and city were included as open-ended questions.

The questionnaire was constructed by drawing on items reported in previous studies aimed at assessing the impact of COVID in other countries (Alkhamees et al., 2020; Moccia et al., 2020; Wang et al., 2020), following the recommendations of (Hernández Sampieri et al., 2018). It consisted of 34 items that required either open-ended, dichotomous, or Likert responses and were divided as follows:

a) Demographics including sex, school year, country, and city.
b) Perceived stressors were evaluated by a set of researcher-developed questions which required dichotomous answers: being diagnosed with COVID-19 or other illness, having someone close diagnosed with COVID-19, or receiving treatment from a mental health professional. In addition, stress related to several situations was evaluated using a Likert scale (ranging from 0 “not at all” to 3 “to a large extent”) and included the following items: reading or listening to news about the pandemic, having someone close diagnosed with COVID-19, the lockdown, losing contact with peers, the possibility of getting sick, academic delays or the economic impact.
c) Coping strategies, maladaptive behaviors, and locus of control were evaluated in a dichotomous manner using researcher-developed questions. Coping strategies adhered to the WHO recommendations: use of preventive measures (e.g., hand washing, social distance), reaching out to family, volunteering, starting a new activity, and exercising. Maladaptive behaviors were evaluated based on questions about substance use and NSSI. Finally, two more items were aimed at examining the locus of control, considering external locus of control when the participant perceived their life outcomes as arising from factors out of their control (“Do you think your situation is bad regardless of what you do?”) and internal locus of control when the participant described their life outcomes as arising from the exercise of their agency and abilities (“Do you think there are things you can do to be well?”). All 18 items are listed in Table S1 in the supplementary material.
d) Anxiety was assessed using the General Anxiety Disorder – 7 (GAD-7), a 7-question scale developed and validated by Spitzer et al. (2006) to detect generalized anxiety disorder and assess its severity. The internal consistency of the scale was excellent with a Cronbach alpha of .92. A cutoff point of 10 is diagnostic of general anxiety disorder with a sensitivity of 89% and a specificity of 82%. The scale was validated in Spanish in a sample of adults (García-Campayo et al., 2010).

e) Depression was assessed using the 9-item Patient Health Questionnaire depression subscale (PHQ-9). This instrument was developed by Spitzer et al. (1999) to evaluate the frequency of each DSM-defined symptom of major depressive disorder. The internal consistency of the scale showed a Cronbach’s alpha coefficient of 0.82. A cutoff point of 11 is considered diagnostic of depression, with a sensitivity of 80% and 90% and a specificity of 92% and 86% in adult (Gilbody et al., 2007) and pediatric population (Allgaier et al., 2012) respectively. The Spanish version of the scale was validated both in adult (Merz et al., 2011) and pediatric (Boorghero et al., 2018) samples.

2.1. Statistics

Exploratory analyses included filtering out those responses of people who did not consent as well as rows of data with timestamps suggesting that the study was completed in two different moments. There were no missing data.

Statistical analyses were performed with SPSS (version 28) (IBM Corp, 2021) and R (R Core Team, 2018). Three age groups were analyzed: children (8–12 years old), adolescents (13–17 years old), and adults (18–24 years old). Chi-square with a non-adjusted odds ratio (OR) was calculated to determine age and sex differences on categorical variables while two-way analyses of variance (ANOVA) were used to compare continuous variables.

We opted against using the scores of rating scales as continuous variables (as others have done (e.g., Af-Rabiaa et al., 2020; Gloster et al., 2020; Wathelet et al., 2020), as this limits the capacity to differentiate between increments in symptoms that place a participant from going from low to mild to those that go from mild to severe. Instead, we opted for using a dichotomous approach similar to Choi et al. (2020) and classifying scores to distinguish those that could be considered cases according to the rating scales established cut-off points. With this in mind, multivariate analyses were performed to examine the variables associated with being a probable case of depression or anxiety in males and in females, including those
variables which showed sex differences. A two-tailed value of \( P < 0.05 \) was considered statistically significant.

3. Results

3.1. Description of the sample

The sample included 3965 participants, 63.8% females from 16 different countries. The age distribution was as follows: 621 (15.7%) were children, 1123 (28.3%) were adolescents and 2021 (56%) were young adults. Mexico showed the largest participation (n = 2345, 59.1%), followed by Colombia (n = 1400, 35.3%). See Table S2 in the supplementary material for the number of participants from each country.

Table 1 shows the frequency of probable cases of depression and anxiety according to standard cut-off points for the PHQ-9 and GAD-7 rating scales. Almost a third of the sample was above the cut-off point for moderate to severe depression and anxiety scores.

3.2. Age and sex differences in symptoms of depression and anxiety

In the case of GAD, scores showed differences according to age (\( F_{2,3964} = 128.6, p < 0.001 \)) and their interaction (\( F_{2,3964} = 88.32, p < 0.001 \)) and their interaction (\( F_{2,3964} = 17.27, p < 0.001 \)) (Fig. 1).

In the current study, 43.5% of the sample surpassed the PHQ-9 and 27% the GAD-7 cutoff points, thus they were considered probable cases. Recent meta-analyses examining the mental health of youth in several countries reported pooled prevalence rates of around 25% for depression and 20% for anxiety in children, and adolescents (Racine et al., 2021) and 34% and 38% in adults (Necho et al., 2021). While differences in the rates between these studies and the current one may be explained by the diagnostic instruments and the age groups represented in the sample, the current numbers support previous research and add Latin America to the regions where mental health was heavily impacted by the COVID-19 pandemic (Santomauro et al., 2021).

4. Discussion

This research aimed to evaluate sex and age differences in the frequency and severity of symptoms of depression and anxiety. The research also aimed to identify which perceived stressors and coping strategies were associated with the presence of psychopathology in children, adolescents, and young adults from a Latin American sample. The results showed a high frequency of symptoms of depression and anxiety, age differences in the frequency of identified stressors and coping strategies related to COVID as well as a higher impact in females of all age groups.

In the current study, 43.5% of the sample surpassed the PHQ-9 and 27% the GAD-7 cutoff points, thus they were considered probable cases. Recent meta-analyses examining the mental health of youth in several countries reported pooled prevalence rates of around 25% for depression and 20% for anxiety in children, and adolescents (Racine et al., 2021) and 34% and 38% in adults (Necho et al., 2021). While differences in the rates between these studies and the current one may be explained by the diagnostic instruments and the age groups represented in the sample, the current numbers support previous research and add Latin America to the regions where mental health was heavily impacted by the COVID-19 pandemic (Santomauro et al., 2021).

These findings underline the need for urgent local and regional actions for the prevention of psychopathology by incorporating mechanisms to cope with stress (Bhattacharjee and Acharya, 2020).

Regarding the perceived stressors, our results showed that the most frequently perceived stressors were having someone close diagnosed with COVID-19 and the presence of another illness (around 30% for each). The number of people having someone with COVID-19 is much larger than the 10.2%–13.3% described in low- and middle-income countries such as Bangladesh (Yeasmin et al., 2020) and Turkey (Ozdin, 2020). Although this number may be inaccurate, it could be associated with some social characteristics of Latin American countries, such as larger social circles, denser living conditions, and extended family networks, as well as with some problems reported in the government’s management of the COVID-19 pandemic, like the underreporting of cases (Lima et al., 2021). The large prevalence of having another illness could be associated with the high levels of stress experienced (Ahmed et al., 2020; Wang et al., 2020) or it could also come from the difficulty of getting medical attention during the pandemic lockdown (Silva Tinoco et al., 2021).

Age-related increases in frequency were observed in almost all the perceived stressors: adults reported the highest level of stress related to pandemic news, having someone close diagnosed with COVID-19, the

| Table 1 |
| Scores of the PHQ-9 and GAD-7 rating scales. |

| Depression rating scale (PHQ-9) |  |
| Mean score | 10.55 (6.23) |
| Kurtosis | 0.33 |
| PHQ-9 score 0–4 (none) | 670 (16.9%) |
| PHQ-9 score 5–10 (mild) | 1569 (39.57%) |
| PHQ-9 score ≥11 (moderate to severe) | 1726 (43.53%) |

| Anxiety rating scale (GAD-7) |  |
| Mean score | 8.74 (4.7) |
| Kurtosis | -0.13 |
| GAD <10 score | 2498 (63%) |
| GAD ≥10 score | 1467 (27%) |

4.1. Age differences

In the current study adolescents and adults showed higher scores on the rating scales of depression and anxiety. Even under non-pandemic conditions, this trend has been frequently highlighted: higher anxiety levels have been reported for adolescents in contrast to children (Duan et al., 2020), rising prevalence rates of depression and anxiety disorders among young adults (Costello et al., 2011), and increased use of mental health providers in adolescents and young adults (Mojabai et al., 2016).
Fig. 1. Two-way ANOVA for age and sex differences in COVID-19 related distress. Degree of perceived stress was rated from 0 to 3 (0 = “not at all” or 3 = “to a large extent”). Larger GAD 7 (0–21) and PHQ (0–27) scores indicate higher severity.

Post hoc: *p<0.05, **p<0.01, ***p<0.001
4.2. Sex differences

possibility of getting sick, academic delays, and the economic impact of the pandemic. Additionally, there were age differences in terms of coping strategies: adolescents showed the highest frequency of use of external locus of control, while young adults showed the highest frequency of depression and anxiety (Horigian et al., 2021; Graupensperger et al., 2021). During the subsequent waves of a pandemic. Additionally, there were age differences in terms of coping strategies: adolescents showed the highest frequency of use of external locus of control, while young adults showed the highest frequency of depression and anxiety (Horigian et al., 2021; Graupensperger et al., 2021). While biology is sure to have a role in the susceptibility to such disorders (Slavich and Sacher, 2019), environmental and cultural factors including the responsibility for caring for the sick or domestic violence could represent a contributing factor (Connor et al., 2020). The results of the multivariate analysis models confirmed the association of several variables with the presence of depression and anxiety. These characteristics could be used in the construction of a risk index to detect vulnerable populations when experiencing a future pandemic event or even during the subsequent waves of a pandemic.

4.3. Limitations

Present results should be examined considering several limitations. Even though the questionnaire was aimed at all the Latin American region, most respondents were from Mexico and Colombia. The sample is biased as data was limited, the symptoms reported on an online survey are not sufficient to imply a formal or accurate diagnosis of depression and anxiety. Data regarding other factors contributing to stress (such as domestic violence) were not included. Finally, some of the instruments used here have not yet been validated for use in young children as young as 8 years.

5. Conclusions

The present study shows a high prevalence of symptoms of depression and anxiety in the region. Adolescent and adult females manifested more stress in response to situations derived from the COVID-19 pandemic, but also were the ones who reported having implemented more coping strategies in the same circumstances.

Author contributions

REU, Conceptualization; Formal analysis; Investigation; Methodology; Project administration; original draft preparation, review & editing. FR dP, Conceptualization; Investigation; Methodology; Project administration; original draft preparation, review & editing. FR dP, Conceptualization; Investigation; Methodology; original draft preparation, review & editing. RD, Data curation; Formal analysis; Investigation; Methodology; original

Table 2

| Item                      | Age   | (% ) | Adolescents | (% ) | Adults | (% ) | Chi²   | p      | OR (children vs. adolescents) | OR (children vs. adults) |
|---------------------------|-------|------|-------------|------|--------|------|--------|--------|-----------------------------|------------------------|
| Diagnosed with COVID-19  | 2.1   | 3.34 | 3.8         | 4.21 | NS     | 1.64 | 0.87–3.1 | <0.01 | 1.84 (1.01–3.32)             |                        |
| Someone close diagnosed  | 24.2  | 34   | 38.5        | 44.23 | <0.001 | 1.62 | 1.30–2.02 | <0.001 | 1.96 (1.60–2.40)             |                        |
| Another illness           | 23.3  | 31.5 | 33.1        | 21.61 | <0.001 | 1.51 | 1.21–1.89 | <0.001 | 1.62 (1.32–1.99)             |                        |
| Received mental health    | 20    | 24.2 | 26.3        | 10.64 | <0.01  | 1.28 | 1.01–1.63 | <0.001 | 1.43 (1.15–1.78)             |                        |
| treatment                 | Sex   | Males | Females   | (%)  | (%)    |      |        |        |                             |                        |
| Diagnosed with COVID-19  | 3.2   | 3.5  | 0.28       | NS   | 1.10  | 0.76–1.58 | <0.01 | 0.93 (0.70–0.93)             |                        |
| Someone close with COVID-1| 31.3  | 37   | 13.13      | <0.001 | 1.29 | 1.12–1.48 |      |      |                             |                        |
| Another illness           | 34    | 29.5 | 8.88       | <0.01 | 0.81  | 0.70–0.93 | <0.001 | 1.34 (1.15–1.56)             |                        |
| Received mental health    | 21.3  | 26.7 | 14.18      | <0.001 | 1.34 | 1.15–1.56 | <0.001 | 1.34 (1.15–1.56)             |                        |

OR = Non-adjusted Odds Ratio; CI = Confidence interval; Children was the reference group for age-related.

Table 3

| Item                      | Age   | (% ) | Adolescents | (% ) | Adults | (% ) | Chi² | p  | OR (children vs. adolescents) | OR (children vs. adults) |
|---------------------------|-------|------|-------------|------|--------|------|------|----|-------------------------------|------------------------|
| Reaching out to family/  | 79.5  | 79.9 | 81.4        | 1.82 | NS     | 1.02 | 0.8–1.3 | <0.01 | 1.13 (0.90–1.41)             |                        |
| volunteering              |       |      |             |      |        |      |      |    |                               |                        |
| Internal locus of control| 95.3  | 93.2 | 95.8        | 10.63 | <0.01 | 0.67 | 0.44–1.05 | <0.001 | 1.12 (0.73–1.71)             |                        |
| External locus of control| 14.2  | 23.8 | 23.1        | 22.85 | <0.001 | 1.89 | 1.45–2.46 | <0.001 | 1.64 (1.28–2.10)             |                        |
| Substance use             | 1.40  | 23.8 | 23.1        | 244.15 | <0.001 | 5.78 | 2.89–11.56 | <0.001 | 20.47 (10.52–39.83)          |                        |
| Start a new activity      | 73.6  | 68.6 | 71.5        | 5.57  | NS    | 0.78 | 0.63–0.97 | <0.001 | 0.90 (0.73–1.10)             |                        |
| Exercising                | 73.9  | 79.3 | 75.1        | 9.08  | <0.01 | 1.34 | 1.07–1.69 | <0.001 | 1.06 (0.86–1.30)             |                        |
| NSSI                      | 0.5   | 3    | 0.9         | 27.33 | <0.001 | 6.43 | 1.97–21.02 | <0.001 | 1.96 (0.58–6.61)             |                        |
| Sex                       |       |      |             |      |        |      |      |    |                               |                        |
| Males                     | 1421  | 83   |             | 24.19 | <0.001 | 0.86 | 0.80–0.92 | <0.001 |                        |                        |
| Females 2486 (%)          |       |      |             |      |        |      |      |    |                               |                        |
| Reaching out to family/   | 76.6  | 83   |             | 24.19 | <0.001 | 0.86 | 0.80–0.92 | <0.001 |                        |                        |
| volunteering              |       |      |             |      |        |      |      |    |                               |                        |
| Internal locus of control | 93.5  | 95.9 |             | 11.38 | <0.001 | 0.81 | 0.71–0.93 | <0.001 |                        |                        |
| External locus of control | 20    | 21.4 |             | 0.96  | NS    | 0.96 | 0.91–1.02 | <0.001 |                        |                        |
| Substance use             | 14.2  | 16.1 |             | 2.54  | NS    | 0.95 | 0.89–1.01 | <0.001 |                        |                        |
| Start a new activity      | 67.6  | 72.9 |             | 12.51 | <0.001 | 0.90 | 0.86–0.96 | <0.001 |                        |                        |
| Exercising                | 73.7  | 77.4 |             | 6.95  | <0.01 | 0.93 | 0.87–0.98 | <0.001 |                        |                        |
| NSSI                      | 1.1   | 1.7  |             | 1.9   | NS    | 0.89 | 0.75–1.05 | <0.001 |                        |                        |
Table 4

| Variables associated with depression as measured by PHQ in males and females. | Males OR (95% CI) | Females OR (95% CI) |
|---|---|---|
| Age | 1.08 (1.05–1.11) | 1.04 (1.02–1.07) |
| Someone close w/COVID-19 | 0.78 (0.59–1.04) | 1.03 (0.85–1.25) |
| Another illness | 1.54 (1.19–2) | 1.61 (1.32–1.96) |
| Received mental health treatment | 1.93 (1.44–2.59) | 2.20 (1.79–2.71) |
| Higher stress about pandemic news | 1.46 (1.24–1.72) | 1.49 (1.32–1.67) |
| Higher stress about someone close w/COVID | 1.11 (1.01–1.21) | 1.04 (0.97–1.11) |
| Higher stress about lockdown | 1.36 (1.15–1.59) | 1.49 (1.31–1.68) |
| Higher stress about not seeing friends | 1.23 (1.03–1.46) | 0.91 (0.81–1.03) |
| Higher stress about the possibility of getting sick | 0.93 (0.81–1.08) | 0.85 (0.77–0.93) |
| Higher stress about academic delays | 1.12 (1.1–1.26) | 1.25 (1.15–1.36) |
| Higher stress about economic impact | 1.21 (1.06–1.38) | 1.29 (1.17–1.43) |

Letters in bold represent p < 0.05.

Table 5

| Variables associated with anxiety as measured by the GAD in males and females. | Males OR (95% CI) | Females OR (95% CI) |
|---|---|---|
| Age | 1.02 (0.99–1.05) | 1.04 (0.98–1.03) |
| Someone close w/COVID | 0.85 (0.62–1.16) | 1.09 (0.90–1.33) |
| Another illness | 1.71 (1.28–2.28) | 1.86 (1.52–2.27) |
| Received mental health treatment | 2.09 (1.53–2.85) | 1.90 (1.54–2.33) |
| Higher stress about pandemic news | 1.99 (1.66–2.39) | 1.82 (1.61–2.06) |
| Higher stress about someone close w/COVID | 1.03 (0.94–1.14) | 1.08 (1.02–1.16) |
| Higher stress about lockdown | 1.87 (1.55–2.26) | 1.71 (1.50–1.94) |
| Higher stress about not seeing friends | 1.02 (0.83–1.24) | 0.87 (0.77–0.99) |
| Higher stress about the possibility of getting sick | 1.11 (0.95–1.30) | 1.11 (1.1–1.22) |
| Higher stress about academic delays | 1.09 (0.96–1.24) | 1.15 (1.06–1.25) |
| Higher stress about economic impact | 1.11 (0.95–1.28) | 1.23 (1.12–1.36) |

Letters in bold represent p < 0.05.

draft preparation; review & editing. PM, Investigation; Methodology; original draft preparation, review & editing. JDP, Conceptualization; Investigation; Methodology; original draft preparation. LPC, Conceptualization; Formal analysis; Methodology; Validation; original draft preparation; review & editing. AH, Investigation; original draft preparation. PG, Investigation; original draft preparation. MFR, Conceptualization; Formal analysis; Investigation; Methodology; original draft preparation; review & editing.

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Declaration of competing interest

The authors declare that there is no conflict of interest.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.jpsychires.2022.10.005.

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