



## Impacts of the COVID-19 pandemic on the mental health of older adults

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### ABSTRACT

#### OBJECTIVE

Covid-19 caused by SARS-CoV-2 began in Wuhan, China and in a short time spread across the world, becoming a pandemic. With this problematization, several governments adopted policies such as social isolation in an effort to reduce infection rates, and limiting the spread of the disease, especially in populations at greater risk, such as older adults. This study aimed to evaluate the impact of the pandemic on the mental health of older adults.

#### METHODS

A quantitative, cross-sectional, analytical observational study was carried out, with a population of older adults (over 65 years old), from the city of São Paulo - SP, Brazil; through an online questionnaire (*Google Forms*®) guided by the *Patient Health Questionnaire-9* (PHQ- 9), Geriatric Depression Scale (GDS), Geriatric Anxiety Inventory (GAI), and the Beck Anxiety Scale (BAI). In the statistical analysis, the Mann Whitney test was used, considering  $p < 0.05$ .

#### RESULTS

A total of 208 older people answered the questionnaire, 33% men and 67% women, of whom 30% lived alone. There was a statistically significant association between sex and feeling alone ( $p = 0.015$ ) and in considering that professional help, even if virtual, would minimize the effects of social isolation ( $p = 0.030$ ), with evidence of this relationship among women.

#### CONCLUSIONS

It is concluded that the older population deserves attention with regard to mental health care during the pandemic, due to the consequences of social isolation. It is inferred that older adults have a critical sense of their own mental health, signaling the need for social and clinical assistance.

#### DESCRIPTORS

Mental Health, Older adults, Pandemic, COVID-19, Social Isolation.

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## INTRODUCTION

The infection caused by the coronavirus (SARS-CoV-2) triggered the COVID-19 pandemic, which has become one of the biggest public health challenges the world has ever faced<sup>1</sup>. Starting in Wuhan, China, it took just one month to become a pandemic, and in January 2022 it has already infected more than 350 million people, resulting in more than 5.5 million deaths worldwide<sup>2</sup>. As a way to tackle the pandemic, the World Health Organization (WHO) recommended social isolation to control the number of deaths in severely affected countries<sup>3</sup>.

Although all age groups were affected by the need for social isolation, we highlight the older population. First, in the first year of the disease, the mortality rate from COVID-19 in the age group 60 to 69 years was 3.6%, reaching 18% in individuals aged 80 years and over<sup>4</sup>, which justifies the need for isolation for this population. Additionally, the frailty of older adults brings the risk of several other infections and decreases the immune response, which is aggravated by the multiple comorbidities and increase in hospitalizations verified in this age group, exacerbating the chances of contracting the infection during the pandemic<sup>5</sup>. Finally, social isolation causes an increase in the psychological, social, and environmental vulnerability of older adults, which can potentiate damages in mental health<sup>6</sup>. In fact, living alone, loneliness, and social isolation are well recognized as detracting from the mental health of older adults<sup>7</sup>.

Even before the pandemic, older adults who lived in communities designed to reduce social isolation described moderate levels of loneliness, which has presumably been exacerbated by social isolation due to the pandemic<sup>8</sup>. In addition, it was found that during the pandemic, feelings of lower self-worth, purpose, anxiety, hopelessness, depression, and uncertainty about the future worsened and even people who considered themselves emotionally healthy before the pandemic could experience these feelings for the first time during social isolation<sup>9</sup>.

Finally, there is a higher incidence of mental health impairments in women when compared to men. In fact, women have twice the lifetime rates of depression and disorders compared to men<sup>10, 11</sup>. Specifically during the COVID-19 pandemic, a study with a Chinese sample indicated an increase in the prevalence of depression and anxiety, with more severe anxiety symptoms in women than in men<sup>12</sup>.

Considering the above, monitoring the impact of the COVID-19 pandemic on the mental health of older adults is important. Thus, the current study aimed to assess the impact of the pandemic on the mental health of older adults and verify possible differences between men and women.

## METHODS

### Study design and participants

The current study, had an observational cross-sectional quantitative design, and was approved by the CEP of the University of Santo Amaro (opinion 4,350,731). Data collection was carried out from October to December 2020. The questionnaire was applied using *Google Forms*®. All subjects agreed to the Free and Informed Consent Term (ICF) in digital form.

People over 65 years of age, living in the capital of São Paulo, with preserved cognitive capacity, with internet access, and familiar with social networks and other communication media or who had companions willing to help them during the completion of the questionnaire were included. Individuals with neurodegenerative diseases (such as Alzheimer's and Senile Dementia) were excluded.

The disclosure was carried out by e-mail, via health centers, and religious communities, among other organizations with the potential to involve older adults.

### Mental health perception instrument

The data collection instrument contained 13 objective questions divided into two parts: The first part contains descriptive characteristics of the subjects; age, biological sex, and whether or not they live alone. The second part with 10 questions addresses the subject's perceptions of their mental health in the previous two weeks. Each question was assigned a score from zero (negative answer - no) to one point (positive answer - yes). The questions were extracted from validated and widely used data collection instruments, including: *Patient Health Questionnaire-9* (PHQ- 9)<sup>13</sup>, the Geriatric Depression Scale (GDS)<sup>14</sup>, Geriatric Anxiety Inventory (GAI)<sup>15</sup>, Beck Anxiety Scale (BAI)<sup>16</sup>, and the questionnaire proposed by Deblina et al. (2020) used in a recent study during the COVID-19 pandemic<sup>17</sup>.

### Statistical analysis

All analyses were performed using SPSS software (IBM, SPSS version 20.0, Chicago, IL). The significance level adopted was  $p \leq 0.05$ . In addition, the Shapiro-Wilk and Levene tests were used to determine normality and equality of variance, respectively. Finally, men ( $n=69$ ) and women ( $n=139$ ) were divided for comparisons using the Mann Whitney test. The answers were separated according to the variables "sex" and "living alone" in order to verify whether these two factors influenced the answers.

## RESULTADOS E DISCUSSÃO

A total of 208 older people ( $72.3 \pm 10.3$  years) participated in the study, 33.2% men and 66.8% women. Among the participants, 29.8% lived alone and 70.2% did not live alone.

In Figure 1 we present the results in percentages for each of the 10 questions regarding mental health.

Figure 1. Questionnaire regarding mental health, and percentage of yes and no answers considering all participants (male and female).

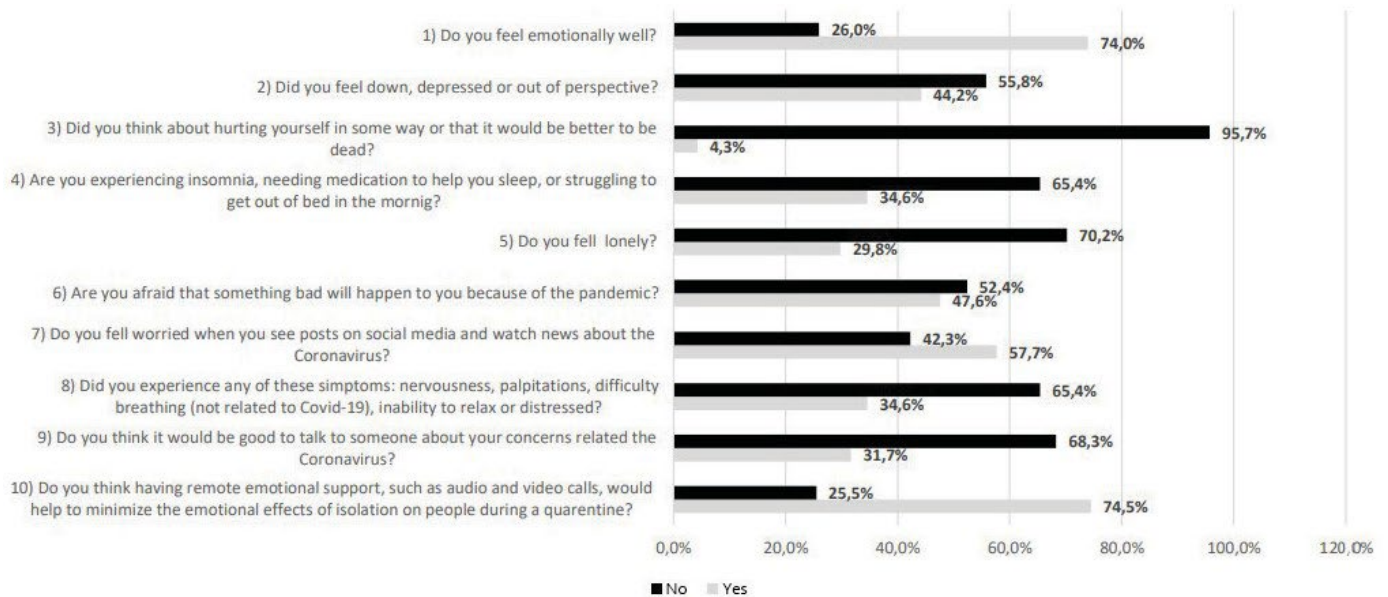


Table 1 presents a comparison between sexes (male and female).

Table 1. Comparison between male and female groups (Mann Whitney statistical test).

Question	Men N=69	Women N=139	Mann Whitney test p-value
1) Do you feel that you are emotionally well?	0 (0 - 0)	0 (0 - 1)	0.190
2) Do you feel down, depressed, or out of perspective?	0 (0 - 1)	0 (0 - 1)	0.298
3) Have you thought about hurting yourself in some way, or that it would be better to be dead?	0 (0 - 0)	0 (0 - 0)	0.464
4) Are you experiencing insomnia, needing medication to help you sleep, or are you unwilling to get out of bed?	0 (0 - 1)	0 (0 - 1)	0.785
5) Do you feel lonely?	0 (0 - 0)	0 (0 - 1)	0.015
6) Are you afraid that something bad will happen to you because of the pandemic?	0 (0 - 1)	0 (0 - 1)	0.805
7) Do you feel shaken when you see posts on social media and watch news about the Coronavirus?	0 (0 - 1)	1 (0 - 1)	0.084
8) Have you experienced any of these symptoms: nervousness, palpitations, difficulty breathing (not related to Covid-19), inability to relax, or distress?	0 (0 - 1)	0 (0 - 1)	0.972
9) Do you think it would be good to talk to someone about your concerns about the Coronavirus?	1 (0 - 1)	1 (0 - 1)	0.778
10) Do you think that having professional emotional support at a distance, such as audio and video calls, would help to minimize the effects of isolation on people during quarantine?	0 (0 - 1)	0 (0 - 0)	0.030
TOTAL	3 (2 - 5)	3 (2 - 5)	0.549

In the comparison between sexes (male and female) we verified significant differences ( $p < 0.05$ ) in the questions regarding the perception of: 5) Do you feel alone? and: 10) Do you think that having professional emotional support at a distance, such as audio and video calls, would help to minimize the effects of isolation on people during quarantine?

## DISCUSSION

The feeling of sadness and anguish can be potentiated in older adults when the fear of being far from their loved ones is added to the pre-existing concerns accompanying advancing age. Thus, some factors such as fear of being infected or infecting family members, loss of routine during confinement, distress in relation to going out and buying basic supplies, difficulty in accessing personal protective equipment, little knowledge about the disease, and having difficulty using technological resources may have harmed the mental health of older adults during isolation<sup>18</sup>.

One of the factors evaluated by the questionnaire identified the manifestation of sadness and anguish, through a possible

desire to injure oneself (self-injury) and the desire to be dead, indicating that 4% of the respondents reported having these thoughts. In fact, older adults over 60 have higher rates of suicide and self-harm than younger groups<sup>19</sup>. Epidemiological data from the United States have shown growth in suicide rates among older adults during isolation, highlighting the urgency of more specific studies on the mental health of older adults in these conditions<sup>20</sup>. These studies corroborate the findings of the current study and indicate that family members, caregivers, and health professionals need to pay extra attention to avoid fatalities and provide adequate treatment for the best possible quality of life.

Another factor assessed by the questionnaire was related to sleep quality. Approximately 34.6% of the older adults reported having difficulty sleeping or using medication for this purpose, as well as being unwilling to get out of bed. This difficulty could be related to older adults who said they felt shaken when they saw posts on social networks and watched news about the Coronavirus, indicated by 57.7% of respondents. According to a survey carried out in India<sup>21</sup>, participants revealed difficulty sleeping after following articles on the pandemic in

the news and media in general, with a growing increase in the feeling of panic when performing these activities. Another hypothesis is that sleep loss is associated with a mood disorder, according to Lopes<sup>22</sup>. Depression is the main mood disorder in older adults, marked by episodes of depressive mood, loss of pleasure in performing daily activities, and sleep disturbances, present in approximately 80% of patients with depression.

The perception of loneliness was present in 29.8% of the participants, and among these, 18.3% lived with a family member, partner or caregiver, suggesting that it is still possible to feel lonely even when living with other people in the same house. According to a study by Pecoit et al. (2021)<sup>23</sup>, loneliness is considered a risk factor for the increase in depressive symptoms in older adults. According to Ishikawa<sup>24</sup>, loneliness when untreated culminates in anxiety and depressive symptoms, making individual strategies for resilience and coping with the pandemic necessary. Regarding the differences between the sexes, where women feel more alone than men, a recent study showed that loneliness seems to be more widely felt in women due to the construction and expression of affection that is different between the sexes<sup>25</sup>.

Symptoms of nervousness, palpitations, difficulty breathing (not related to Covid-19), an inability to relax, or distress were reported by 34.6% of respondents, indicating that they had experienced at least one of the aforementioned symptoms. Research shows that anxiety can be associated with the aforementioned symptoms and can be triggered by fear and uncertainties that permeate the pandemic<sup>23</sup>.

The desire to have someone to talk to about the Coronavirus was affirmed as positive for 31.7% of older adults. According to Brooks, during isolation it is important to maintain ongoing communication with family and friends, through phone calls and via social networks, as a means of seeking support and reducing boredom and the feeling of loneliness<sup>18</sup>.

Remote emotional support provided by health professionals through audio and video calls was reported by a large number of the older adults interviewed as a tool capable of helping to minimize the effects of isolation during quarantine. One alternative studied that can facilitate access to older adults is care via phone<sup>26</sup>. In Brazil, a study was carried out in the state of Bahia in which older adults received psychosocial care at a distance via *Whatsapp* offering group video calls, courses, workshops, and virtual lectures<sup>27</sup>. In this context, actions were essential to reduce the psychosocial impacts on older adults during the pandemic. However, it is necessary to reflect on how to direct these services to older adults, since only a portion of this population has access to the internet and *smartphones*.

## CONCLUSION

The information obtained in this study is in agreement with recent literature, which highlights the older population as deserving of attention with regard to mental health care during the pandemic, due to the consequences of social isolation. The importance of isolation in the prophylaxis of COVID-19 is recognized, however it is perceived that it can help trigger and/or worsen psychological disorders in older adults.

It is inferred that older adults have a critical sense of their mental health and signal the need for social and clinical assistance. In addition, women feel more alone and consider professional help to be relevant, even if virtual.

Health professionals can be effective in providing information and psychological and emotional support to older adults, and telemedicine can be an interesting tool to help in these situations. It is important for older adults to maintain communication with family and friends via telephone or social networks as a means of seeking support and reducing feelings of loneliness.

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