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# *Changes in habits and psychological manifestations during the first three months of social isolation*

# *Mudanças de hábitos e manifestações psicológicas durante os três primeiros meses de isolamento social*

# *Cambios de costumbres y manifestaciones psicológicas durante los tres primeros meses de aislamiento social*

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## ABSTRACT

**Objective:** To check changes in habits and psychological manifestations during the first three months of social isolation during the COVID-19 pandemic**. Methods:** A cross-sectional study was carried out between November 1 and December 20, 2020 using an online recall questionnaire and "snowball" sampling with 219 people aged between 18 and 65 years who lived in the municipality of Uberaba, Minas Gerais, Brazil. Descriptive analysis (absolute frequency and percentage) of sociodemographic variables, changes in habits and psychological manifestations was performed. The inferential analysis was performed by comparing the 95% confidence intervals (95%CI). **Results:** There was a significant difference in the proportion of the sample that reported decreased physical activity (64.8%; 95%CI: 58.0-71.2) and increased screen time (73.1%; 95%CI: 67.1 -79.5), anxious behaviors (71.2%; 95%CI: 66.2-78.1), stress (69.4%; 95%CI: 63.0-75.3), fear ( 58.9%; 95%CI: 52.1-65.3), tension (57.5%; 95%CI: 50.7-64.4), insecurity (60.3%; 95%CI: 53, 9-66.7) and nervousness (57.1%; 95%CI: 50.2-63.9). As for the consumption of alcoholic beverages and eating habits, there were no significant differences between the proportions. **Conclusion:** The first three months of social isolation imposed by the COVID-19 pandemic influenced the investigated population to reduce the practice of physical activity, increase screen time and increase the frequency of psychological manifestations.

**Descriptors:** Physical Activity, COVID-19, Eating Behavior.

## *RESUMO*

***Objetivo:*** *Verificar as mudanças de hábitos e manifestações psicológicas durante os três primeiros meses de isolamento social da pandemia de COVID-19.* ***Métodos:*** *Estudo transversal realizado entre 01 de novembro e 20 de dezembro de 2020 por meio da aplicação de questionário on-line do tipo recordatório e amostragem do método "bola de neve" no qual participaram 219 pessoas entre 18 e 65 anos, residentes do município de Uberaba, Minas Gerais, Brasil. Realizou-se análise descritiva (frequência absoluta e porcentagem) das variáveis sociodemográficas, das mudanças de hábitos e das manifestações psicológicas. A análise inferencial realizou-se pela comparação do intervalo de confiança de 95% (IC95%).* ***Resultados:*** *Houve diferença significativa na proporção da amostra que considerou diminuição da atividade física (64,8%; IC95%: 58,0-71,2) e aumento do tempo de tela (73,1%; IC95%: 67,1-79,5), dos comportamentos ansiosos (71,2%; IC95%: 66,2-78,1), do estresse (69,4%; IC95%:63,0-75,3), do medo (58,9%; IC95%: 52,1-65,3), da tensão (57,5%; IC95%: 50,7-64,4), da insegurança (60,3%; IC95%: 53,9-66,7) e do nervosismo (57,1%; IC95%: 50,2-63,9). Em relação ao consumo de bebidas alcoólicas e dos hábitos alimentares não houve*



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*diferenças significativas entre as proporções.* ***Conclusão:*** *Os três primeiros meses de isolamento social impostos pela pandemia da COVID-19 influenciaram a população investigada na redução da prática de atividade física, no aumento do tempo de tela e no aumento da frequência de manifestações psicológicas.*

***Descritores:*** *Atividade Física; COVID-19; Comportamento Alimentar.*

***RESUMEN***

***Objetivo:*** *Verificar los cambios de costumbres y manifestaciones psicológicas durante los tres primeros meses de aislamiento social de la pandemia de la COVID-19.* ***Métodos:*** *Estudio transversal realizado entre 01 de noviembre y 20 de diciembre de 2020 a través de la aplicación de un cuestionario on-line del tipo recordatorio y muestreo del método "pelota de nieve" en el cual participaron 219 personas entre los 18 y 65 años, residentes del municipio de Uberaba, Minas Gerais, Brasil. Se realizó el análisis descriptivo (frecuencia absoluta y porcentaje) de las variables sociodemográficas, de los cambios de costumbres y de las manifestaciones psicológicas. El análisis inferencial se dio por la comparación del intervalo de confianza del 95% (IC95%).* ***Resultados:*** *Hubo diferencia significativa en la proporción de la muestra que consideró disminución de la actividad física (64,8%; IC95%: 58,0-71,2) y el aumento del tiempo de pantalla (73,1%; IC95%: 67,1-79,5), de las conductas ansiosas (71,2%; IC95%: 66,2-78,1), del estrés (69,4%; IC95%:63,0-75,3), del miedo (58,9%; IC95%: 52,1-65,3), de la tensión (57,5%; IC95%: 50,7-64,4), de la inseguridad (60,3%; IC95%: 53,9-66,7) y del nerviosismo (57,1%; IC95%: 50,2-63,9). Respecto el consumo de bebidas alcohólicas y de las costumbres alimentarias, no hubo diferencias significativas entre las proporciones.* ***Conclusión:*** *Los tres primeros meses de aislamiento social de la pandemia de la COVID-19 han influenciado la población investigada para la reducción de la práctica de actividad física, el aumento del tiempo de pantalla y el aumento de la frecuencia de manifestaciones psicológicas.*

***Descriptores:*** *Ejercicio Físico; COVID-19; Conducta Alimentaria.*

## INTRODUCTION

The outbreak of a new disease that occurred in Wuhan, China, in December 2019, gave rise to COVID-19, transmitted by the new type of coronavirus called SARS-COV-2, which is related to respiratory infections[1]. According to a study, an infected person can transmit the virus to, on average, four more individuals[2], thus causing an exponential increase in the number of infected people and the number of deaths[3]. Due to the progression of the virus and its high transmission rate, in March 2020, in a scenario with more than 110 thousand cases distributed in 114 countries, the World Health Organization (WHO) declared a global pandemic of the disease[4].

In the absence of vaccines and antivirals at that time, some measures were adopted by the different administrative spheres and local health authorities[5] in order to reduce the infectious contact of the population. WHO recommended, as part of these measures, hand hygiene, the use of face masks and social isolation[6].

Countries that faced/still face the pandemic adopted social isolation as well as the closing of non-essential businesses and services in order to reduce viral circulation[7] and increase the permanence of people at home, causing potential changes in behaviors and the habits of the population[8-11].

During the COVID-19 pandemic, there were several behavioral changes, such as significant reduction in physical activity levels[8], increased sedentary behavior, significant increase in screen time[9], increased consumption of alcoholic beverages[9] and tobacco use[9], and great emphasis on changes in eating habits, resulting in an increase in the number of meals per day and in the consumption of ultraprocessed foods[10,11].

Sudden changes in lifestyle and fear of contamination and illness can generate an overload of stress which, in turn, is a factor that causes neurophysiological imbalances that, when prolonged, can trigger a more serious mental disorder[12]. Thus, individuals subjected to social isolation may be more susceptible to mental health disorders and psychic suffering related to psychological manifestations and, mainly, to stress[13].

The unprecedented accelerated spread of the virus, together with the implementation of measures for its control, demonstrated the need to know the impact of the COVID-19 pandemic on the behavior and habits of the population since these can become a major risk to health and contribute to the severity and lethality of the disease[5,9,14]. Therefore, the objective of the present study was to check the changes in habits and psychological manifestations during the first three months of social isolation during the COVID-19 pandemic.

## METHODS

A cross-sectional study was conducted using an online questionnaire and convenience sampling. The target population of the study included adults, of both sexes, aged between 18 and 65 years living in the municipality of

Uberaba, Minas Gerais, Brazil (n=219). This study is an excerpt from the research "Physical exercise for coping with the COVID-19 pandemic: a population-based research in the municipalities of the Triângulo Mineiro".

A recall of the first three months of social isolation (March, April and May 2020) was made in the 10th month of the COVID-19 pandemic (between November 1 and December 20, 2020). The link to the form was disclosed to the researchers' contacts on social media and the instant messaging application Whatsapp®. Participants' anonymity was ensured by adopting the following procedures: 1) recording the name on the form was not mandatory; 2) participants' names were replaced with a code at the time of data analysis, with each participant being assigned a code in the data sheet. Thus, there was no conflict of interest in the research.

The first page of the questionnaire contained the informed consent form with all the information about the research. Only after clicking on "I consent to participate in the research" and agreeing with all the consent form terms the participant started filling out the form. Thus, if they opted in, participants would get a copy of the informed consent by e-mail or WhatsApp®.

Participants were recruited and invited using the "snowball" method, also referred to in the literature as snowball sampling[15,16]. In this type of study, the researcher sends the questionnaire to a pre-defined convenience sample (first wave of subjects). For the present research, we tried to send it to people with the following profiles: 1) low-income adult men; 2) low-income older men; 3) poorly-educated adult men; 4) poorly-educated older men; 5) low-income adult women; 6) low-income older women; 7) poorly-educated adult women; 8) poorly-educated older women; 9) high- or middle-income adult men; 10) high- or middle-income older men; 11) highly- or medium-educated adult men; 12) highly- or medium-educated older men; 13) high- or middle-income adult women; 14) high- or middle-income older women; 15) highly- or medium-educated adult women; 16) highly- or medium-educated older women. These individuals could answer the questionnaire as well as recruit other participants from their contact network for the research, thus developing several waves according to the methodology used[15,16]. For this research, the 16 different profiles listed above were used in order to reduce sampling bias.

People aged between 18 and 65 years who lived in Uberaba were included, and those who did not complete the questionnaire were excluded from the research. The research exclusion criterion adopted was the non-consent of the participant after reading the consent form. For these people, the questionnaire was closed.

An author-developed questionnaire based on the literature available during the data collection period[9,17-19] included objective questions covering sociodemographic variables such as age, sex (woman and man), education (incomplete primary education, complete primary education, complete secondary education, complete higher education, and graduate education), marital status (married, divorced, single and widowed), monthly household income (up to one minimum wage, one to three wages, three to six wages, six to nine wages and more than nine wages), and social isolation status (not isolated; partially isolated; and fully isolated).

With regard to changes in habits, the following variables were assessed: physical activity, screen time, alcohol consumption and eating habits. Data were collected using the following questions: In the first three months of social isolation, do you consider that your level of physical activity or physical exercise has changed?; In the first three months of social isolation, do you consider that the time spent in front of a screen (TV, computer, cell phone, tablet) has changed?; In the first three months of social isolation, how was your alcohol consumption?; As for your diet, during the first three months of social isolation, was there a change in the consumption of fruits, vegetables, legumes, rice, beans, meat, eggs, milk, and ultraprocessed foods?

As for psychological manifestations[20,21], the following question was asked: For which of these psychological manifestations did you notice an increase in frequency in the first three months of social isolation? (anxious behaviors; stress; insecurity; fear; nervousness; feelings of inferiority; tension; sadness).

Following tabulation of data in a spreadsheet (Excel, version 2019) for statistical analysis, we used SPSS version 25.0. For all variables, descriptive statistics of the data was performed using absolute frequency and percentage. An inferential analysis was also performed by comparing the 95% confidence intervals (95%CI).

The research was approved by the Research Ethics Committee of the Federal University of Triângulo Mineiro, under Approval No. 4.342.962.

## RESULTS

With a final sample of 219 people, only two refused to participate in the research. Thus, the general characteristics of the sample and the social isolation status in the first three months of social isolation during the COVID-19 pandemic are described in Table I.

Table I - Characterization of the sample (n= 219). Data expressed as frequencies and confidence intervals (95%CI). Uberaba, Minas Gerais, 2020.

| Characteristics | | n | % | 95%CI | |
|---|---|---|---|---|---|
| | | | | Lower | Upper |
| **Age** | 18-24 years | 36 | 16.4 | 11.4 | 21.9 |
| | 25-34 years | 88 | 40.2 | 33.8 | 47.0 |
| | 35-44 years | 55 | 25.1 | 19.2 | 31.1 |
| | 45-54 years | 27 | 12.3 | 8.2 | 16.9 |
| | 55-65 years | 13 | 5.9 | 3.2 | 9.1 |
| **Sex** | Women | 162 | 74 | 68.5 | 80.4 |
| | Men | 57 | 26 | 19.6 | 31.5 |
| **Education** | Incomplete PE | 2 | 0.9 | 0.6 | 2.3 |
| | Complete PE | 5 | 2.3 | 0.5 | 4.6 |
| | Complete SE | 45 | 20.5 | 15.1 | 26.0 |
| | Complete higher education | 66 | 30.1 | 24.2 | 36.1 |
| | Graduate education | 101 | 46.1 | 39.7 | 53.0 |
| **Marital Status** | Married | 103 | 47.0 | 39.7 | 53.4 |
| | Divorced | 9 | 4.1 | 1.8 | 6.8 |
| | Single | 104 | 47.5 | 40.7 | 54.3 |
| | Widowed | 3 | 1.4 | 0.0 | 3.2 |
| **Income** | None or up to 1 MW | 10 | 4.6 | 2.3 | 7.3 |
| | 1-3 MW | 60 | 27.4 | 21.5 | 32.9 |
| | 3-6 MW | 68 | 31.1 | 25.1 | 37.4 |
| | 6-9 MW | 41 | 18.7 | 13.7 | 23.7 |
| | More than 9 MW | 40 | 18.3 | 13.2 | 23.7 |
| **Social Isolation** | Not isolated | 36 | 16.4 | 11.9 | 21.5 |
| | Partially and still isolating | 13 | 5.9 | 2.7 | 9.1 |
| | Partially and back to isolation | 29 | 13.2 | 8.2 | 17.8 |
| | Fully and still isolating | 77 | 35.2 | 28.8 | 42.0 |
| | Fully and back to isolation | 64 | 29.2 | 23.3 | 36.1 |

PE: primary education; SE: secondary education; Graduate education: *lato sensu*, masters and/or doctorate; MW: minimum wage

According to the results in Table I, there was a greater number of adults in the age range between 25 and 34 years, women, and people with a graduate degree. As for marital status, there was numerical similarity between the proportions of single and married people. With regard to household income, there was a distribution of proportions in wage ranges (from one to more than nine minimum wages). Most participants in the first three months of the pandemic were fully isolated. At the time of the research, 35.2% of the participants reported that they were still fully isolated and 29.2% claimed to have returned to daily activities.

Table II describes the results related to the frequency of psychological manifestations.

Table II - Frequencies and confidence intervals (95%CI) of psychological manifestations in the first three months of the COVID-19 pandemic (n=219). Uberaba, Minas Gerais, 2020.

| Psychological manifestations | | n | % | 95%CI | |
|---|---|---|---|---|---|
| | | | | Lower | Upper |
| **Anxious behaviors** | Increased | 158 | 72.1 | 66.2 | 78.1 |
| | Decreased | 5 | 2.3 | 0.5 | 4.1 |
| | Same | 56 | 25.6 | 19.6 | 31.1 |
| **Stress** | Increased | 152 | 69.4 | 63.0 | 75.3 |
| | Decreased | 10 | 4.6 | 2.3 | 7.8 |
| | Same | 57 | 26.0 | 20.1 | 31.5 |
| **Insecurity** | Increased | 132 | 60.3 | 53.9 | 66.7 |
| | Decreased | 8 | 3.7 | 1.4 | 6.4 |
| | Same | 79 | 36.1 | 29.7 | 42.5 |
| **Fear** | Increased | 129 | 58.9 | 52.1 | 65.3 |
| | Decreased | 12 | 5.5 | 2.7 | 8.7 |
| | Same | 78 | 35.6 | 29.2 | 42.0 |
| **Nervousness** | Increased | 125 | 57.1 | 50.2 | 63.9 |
| | Decreased | 14 | 6.4 | 3.2 | 9.6 |
| | Same | 80 | 36.5 | 29.7 | 43.4 |
| **Tension** | Increased | 126 | 57.5 | 50.7 | 64.4 |
| | Decreased | 10 | 4.6 | 1.8 | 7.8 |
| | Same | 83 | 37.9 | 31.5 | 44.7 |
| **Sadness** | Increased | 110 | 50.2 | 43.4 | 57.1 |
| | Decreased | 16 | 7.3 | 4.1 | 11.0 |
| | Same | 93 | 42.5 | 36.1 | 48.9 |

Table II shows a significant difference in the proportion of the sample that considered an increase in the frequency of psychological manifestations in the first three months of social isolation during the COVID-19 pandemic, except for the feeling of sadness.

Participants' frequencies of physical activity and screen time in the first three months of social isolation are described in Table III.

Table III - Frequencies and confidence intervals (95%CI) of physical activity and screen time in the first three months of the COVID-19 pandemic (n=219). Uberaba, Minas Gerais, 2020.

| Variables | | n | % | 95%CI | |
|---|---|---|---|---|---|
| | | | | Lower | Upper |
| **Physical Activity** | Same | 44 | 20.1 | 14.6 | 26.0 |
| | Increased | 33 | 15.1 | 10.5 | 20.1 |
| | Decreased | 142 | 64.8 | 58.0 | 71.2 |
| **Screen Time** | Same | 53 | 24.2 | 18.7 | 30.1 |
| | Increased | 160 | 73.1 | 67.1 | 79.5 |
| | Decreased | 6 | 2.7 | 0.9 | 5.0 |

Table III shows a significant difference in the proportion of participants who reported a decrease in physical activity and an increase in screen time in the first three months of social isolation.

Finally, Table IV presents the categories of eating habits in the first three months of social isolation.

Table IV - Frequencies and confidence intervals (95%CI) of eating habits categories in the first three months of the COVID-19 pandemic (n=219). Uberaba, Minas Gerais, 2020.

| Eating habits | | n | % | 95%CI | |
|---|---|---|---|---|---|
| | | | | Lower | Upper |
| **Fruits, legumes and vegetables** | Increased | 65 | 29.7 | 23.3 | 36.1 |
| | Decreased | 19 | 8.7 | 5.5 | 12.8 |
| | Same | 135 | 61.6 | 54.8 | 68.0 |
| **Rice and beans** | Increased | 34 | 15.5 | 11.0 | 21.0 |
| | Decreased | 29 | 13.2 | 8.7 | 17.8 |
| | Same | 156 | 71.2 | 64.9 | 76.7 |
| **Meat, eggs and milk** | Increased | 50 | 22.8 | 17.4 | 28.8 |
| | Decreased | 13 | 5.9 | 3.2 | 9.6 |
| | Same | 156 | 71.2 | 64.8 | 77.6 |
| **Ultraprocessed food** | Increased | 93 | 42.5 | 35.6 | 49.3 |
| | Decreased | 41 | 18.7 | 13.2 | 24.2 |
| | Same | 85 | 38.8 | 32.9 | 45.7 |
| **Alcoholic beverages** | Same | 81 | 37.0 | 30.6 | 43.4 |
| | Drank more before | 22 | 10.0 | 5.9 | 14.2 |
| | Drank more during | 33 | 15.1 | 10.5 | 20.1 |
| | Did not drink before and did not drink during | 83 | 37.9 | 31.5 | 43.8 |

Table IV shows that there were significant differences in the proportion of the sample reported a maintenance of the consumption of foods such as fruits, vegetables and legumes, rice and beans, meat, eggs and milk, as well as alcoholic beverages in the first three months of social isolation. As for consumption of unhealthy foods (ultraprocessed), the proportions of increasing and maintaining their intake were similar.

## DISCUSSION

The objective of this study was to check changes in habits and psychological manifestations reported during the first three months of social isolation during the COVID-19 pandemic. The period from March to May 2020 called for the population's need to adapt to the new routines imposed by the pandemic, which generated a new reality. During that period, most countries in the world implemented extraordinary measures that restricted the mobility and social interactions of their populations[7] (social isolation) and there were abrupt economic and health crises caused by COVID-19 that possibly led to increased stress in the population, thereby significantly impacting people's general health and mental well-being[20]. Despite public entities adopting general measures such as social distancing, collective hygiene and border control, in the first months of the pandemic the accelerated spread of the virus continued to grow exponentially[5].

Data from the present research indicate that 64.4% of the studied sample reported being fully isolated in the first three months of the pandemic. They also reported changes in their habits during this period. The constant need to stay at home in the first three months of the COVID-19 pandemic generated a broad restriction of the movements of the population analyzed, with a decrease in the level of physical activity and an increase in screen time. In line with this, other studies have also found frequent physical inactivity and increased screen time during the initial phase of the COVID-19 pandemic[17,22].

According to an analysis of the ConVid Behavior Research database, before the COVID-19 pandemic, 30.1% of the Brazilian adult population performed physical activity sufficiently compatible with their lifestyle. On the other hand, during the pandemic, this percentage dropped to just 12%, with a lower proportion of physical activity in women[9], the gender that predominated in the present study. In addition, the same study also analyzed sedentary behavior during the COVID-19 pandemic through the average time spent on television and on computers or tablets, with an average increase of more than an hour noticed in both situations[9]. Similar results were also found in France when analyzing the habits of the population, with a 64.6% increase in screen time in the French population[23].

It is understood, then, that social isolation tends to limit face-to-face contact with other people and has become a risk factor for the development of symptoms of psychological manifestations and even psychological disorders[20]. The increase in the frequency of anxious behaviors, stress, insecurity, fear, nervousness and tension during the first three months of social isolation during the COVID-19 pandemic was also found in the present study.

Data in the literature corroborate the results of the present study. A study carried out with 3,836 Brazilians from the five regions of the country revealed that social isolation during the COVID-19 pandemic triggered feelings of fear (87.4%), sadness and concern (80.7%)[18]. In addition, more than half of the Brazilian population (52.6%) reported the presence of anxiety and nervousness all or almost all the time[19].

In China, a study carried out in 194 cities with 1,210 participants between January and February 2020 assessed the psychological impact of the COVID-19 pandemic and found that 53.8% of those analyzed reported some psychological impact, with 16.5 % reporting depressive symptoms, 28.8% reporting anxiety symptoms and 8.1% reporting stress – all of these classified as moderate to severe. It should be noted that most participants (84.7%) spent an average of 20 to 24 hours a day at home, and 75.2% of these were concerned that their family members had symptoms of COVID-19[24].

Another study points to the influence of the pandemic on the increase in the frequency of psychological manifestations, which is alarming given the presence of suicide cases associated with psychological impact resulting from COVID-19[25]. Thus, due to an increase in the demands related to the population's mental health, and during the months of greater social isolation, there was a significant increase in the demand for online care from professionals in the area[26]. However, in addition to professional monitoring, the search for healthy habits is also considered an important factor.

Regular physical activity is a simple, economical and easily accessible alternative capable of helping to improve mental health, especially anxiety and depression, in addition to contributing to the maintenance of general well-being[27]. By linking changes in habits to psychological manifestations, a study carried out with Brazilian adults revealed that increases in physical inactivity and higher prevalence of screen time during the COVID-19 pandemic period were associated with greater chances of negative mental health outcomes[28].

With regard to eating habits in the present study, the consumption of fruits, vegetables and legumes, rice and beans, meat, eggs and milk, and alcoholic beverages remained the same during the first three months of social isolation. As for ultraprocessed foods, there was a distribution in the proportion of maintenance and increase in consumption in the analyzed sample. Corroborating these results, a study carried out with 700 Chileans showed that most participants (51.3%) reported having maintained their pre-pandemic eating habits, with emphasis on the prevalence of vegetables, fruits and legumes, as well as meat consumption. However, as for negative health parameters, 30% of the sample reported consuming alcohol daily and eating fast food and fried foods once or twice a week (62.9% and 59.9%, respectively)[29].

Changes in the habits of the population investigated in the present research induced by social isolation during the first three months of the COVID-19 pandemic are intriguing and can result in damage to health. The increase in the risk of non-communicable diseases, which are linked to more severe cases of COVID-19[14], and the possibility of psychological suffering worsening during longer periods of isolation, deserve to be objects of attention from the government and health professionals in designing health promotion strategies at the population level, with priority given to those with greater needs and restrictions.

Based on the information provided in the present study, it is possible to highlight that social isolation measures during the pandemic period affected health habits and behaviors that reflect collective health indicators. Therefore, with regard specifically to the lifestyle-related behaviors presented herein, based on the promotion of expanded health, it is important that public health agencies encourage the population to follow the Brazilian recommendations for the practice of physical activity and sedentary behavior[30] and the recommendations for healthy eating[31] during and after the pandemic, respecting the guidelines of health and government authorities.

Some of the limitations of the present study should be highlighted: 1) the use of an indirect method for data collection (online questionnaire), which may generate bias when dealing with self-response from survey respondents; 2) temporal bias, given that the research took place between November and December, with retrospective questions about the first three months of isolation (March, April and May); 3) target audience bias, due to the recruitment of researchers' contacts on their social media.

Due to the few studies on this issue in the literature, the production of this research is understood as enriching in the context of psychological manifestations related to the pandemic. Additionally, to date, this is the only study carried out in the Triângulo Mineiro region that deals with healthy habits of the population during the social isolation of COVID-19.

## CONCLUSION

The first three months of social isolation imposed by the COVID-19 pandemic influenced the investigated population to reduce the practice of physical activity, increase screen time and increase the frequency of psychological manifestations, represented by anxious behaviors, stress, fear, tension, insecurity and nervousness. Thus, it was observed that these changes in habits can result in negative changes that affect health.

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## CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest.

## CONTRIBUTIONS

**Andressa Letícia Barreto**, **Camila Bosquiero Papini** and **Karina de Almeida Brunheroti** contributed to the conception and design of the study; analysis and interpretation of data; and the writing and/or revision of the manuscript. **Cristiane Bertucci Nicoleti** and **Sara de Lima Oliveira** contributed to the writing and/or revision of the manuscript. All the authors have approved the final version of the manuscript to be published and are responsible for all aspects of it, including ensuring its accuracy and integrity.

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