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The covid-19 pandemic and changes in the lifestyle of students and employees of a federal public university

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El desempeño del nutricionista residente en tiempos de pandemia de covid-19: Un informe de experiencia

RESUMO

Objetivo: Avaliar as modificações no estilo de vida e hábitos alimentares durante a pandemia de COVID-19 em acadêmicos e funcionários de uma universidade pública. Método: Estudo transversal com 334 adultos de ambos os sexos, de uma universidade pública no Triângulo Mineiro. Os dados foram coletados por meio de questionário digital. Resultados: 82,3% dos participantes relataram que a base de suas refeições era de alimentos in natura e minimamente processados. O ganho de peso corporal esteve associado ao aumento da ingestão da quantidade de alimentos (RP: 1,71; IC95%: 1,49-2,07). A prevalência de ansiedade foi de 79,9%. Pessoas com ansiedade apresentaram maiores prevalências para alteração na qualidade do sono (RP: 1,54; IC95%: 1,45-2,02), pior classificação da qualidade do sono (RP: 1,18; IC95%: 1,33-1,78), ganho de peso corporal (RP: 1,18; IC95%: 1,04-1,35), alteração no hábito alimentar (RP: 1,42; IC95%: 1,23-1,63) e aumento da quantidade de alimento consumido (RP: 1,3; IC95%: 1,17-1,46). Conclusão: A pandemia de Covid-19 resultou em um aumento significativo da ansiedade que foi associada a alteração do sono, mudanças de hábitos alimentares e aumento de peso corporal.

DESCRIPTORES: COVID-19, Pandemias, Isolamento Social, Estilo de Vida, Dieta.

ABSTRACT

Objective: To assess changes in lifestyle and food habits during the COVID-19 pandemic in students and employees of public university. Method: Cross-sectional study with 334 adults of both sexes, from a public university in the Triângulo Mineiro area. Data were collected through digital questionnaires. Results: 82.3% of the participants reported that the base of their meals was fresh and minimally processed foods. Body weight gain was associated with increased food intake (PR: 1.71; 95%CI: 1.49-2.07). Anxiety anxiety was 79.9%. People with anxiety displayed higher prevalences for changes in quality of sleep (PR: 1.54; IC95%: 1.45-2.02), worse classifications in quality of sleep (PR: 1.18; CI95%: 1.33-1.78), weight gain (PR: 1.18; CI95%: 1.04-1.35), changes in food habits (PR: 1.42; CI95%: 1.23-1.63) and increased food intake (PR: 1.3; CI95%: 1.17-1.46). Conclusion: The Covid-19 pandemic resulted in a significant increase in anxiety that was associated with altered sleep, changes in eating habits and increased body weight.

DESCRIPTORS: COVID-19, Pandemics, Social Isolation, Lifestyle, Diet.

RESUMEN

Objetivo: Evaluar cambios en el estilo de vida y hábitos alimenticios durante la pandemia de COVID-19 en académicos y empleados de una universidad pública. Método: Estudio transversal con 334 adultos de ambos sexos, de una universidad pública de Triângulo Mineiro. Los datos fueron recolectados a través de un cuestionario digital. Resultados: el 82,3% de los participantes informó que la base de sus comidas eran alimentos frescos y mínimamente procesados. El aumento de peso corporal se asoció con una mayor ingesta de alimentos (RP: 1,71; IC del 95%: 1,49-2,07). La ansiedad por ansiedad fue del 79,9%. Las personas con ansiedad tenían mayor prevalencia de alteración de la calidad del sueño (RP: 1,54; IC del 95%: 1,45-2,02), peor clasificación de la calidad del sueño (RP: 1,18; IC del 95%: 1,33 - 1,78), aumento de peso corporal (RP: 1,18; IC 95%: 1,04-1,35), cambio en los hábitos alimentarios (RP: 1,42; IC 95%: 1,23-1,63) y aumento de la cantidad de alimentos consumidos (RP: 1,3; IC 95%: 1,17-1,46). Conclusión: La pandemia de Covid-19 resultó en un aumento significativo de la ansiedad que se asoció con alteraciones del sueño, cambios en los hábitos alimenticios y aumento del peso corporal.

DESCRIPTORES: COVID-19, Pandemias, Isolamiento Social, Estilo de vida, Dieta..

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INTRODUCTION

The COVID-19 pandemic, caused by the new coronavirus (SARS-CoV-2) had its first records in December 2019 in central China. 1 In November 2021, twenty months after the declaration of the global pandemic, notifications showed that 254,847,065 individuals had contracted the virus, leading to 5,720,712 deaths in 216 countries/territories. In Brazil, on the same date, there were records of 21,965,684 cases and 611,478 deaths. 2

Social distancing measures do not prevent transmission, but aim to reduce the speed of the spread of the virus, with transmission occurring in a controlled way in small intra-domestic groups. 3

For better controlling the spread of the virus within the university, hygiene care, use of masks, social distance, suspension of classes, academic activities, events within the university and replanning of administrative activities, as well as action plans to the fight against COVID-19 were measures deliberated by the university's pandemic committee. 4

On the other hand, social distancing

can cause significant disruption, both to individuals and to families and communities across countries. Aspects of everyday life that were once simple and uncomplicated are suspended indefinitely. Changes in the usual way of life can make people feel insecure and anxious. 5

In addition, the rapid spread of the new coronavirus, the uncertainties about its control and its severity, the unpredictability about the duration of the pandemic and its consequences, leading to various mental sequelae, even in previously well people. These individuals may experience acute stress disorders, irritability, insomnia, emotional distress, mood disorders, depressive symptoms, fear and panic, as well as anxiety and stress because of financial worries, frustration, boredom, loneliness, lack of supplies, and lack of communication. 6,7

As an aggravating factor for health professionals, evidence has shown a high number of deaths from COVID-19 among these professionals, 8 causing the worsening of feelings of fear, anxiety and sadness, feelings prevalent in these professionals during the pandemic. 9

Given this context, the objective of this

work was to evaluate the changes in lifestyle and eating habits during the face of the COVID-19 pandemic in a public university community.

METHOD

This is a cross-sectional study, data collection was carried out in August and September 2020, in which 334 people, over 18 years of age, of both sexes, who had a link with the university, academics and employees participated, in the city of Uberaba/MG through a digital questionnaire prepared by the authors.

This study was carried out in accordance with Resolution No. 510/16, after consent through the Free and Informed Consent Term, with the approval of the Ethics and Research Committee CAAE 34444320.2.0000.8667.

Data were submitted to statistical analysis using Stata® software (version 13.0). Descriptive analysis, absolute and relative frequency analysis, Pearson's Chi-square and Linear Trend Chi-square tests were performed. Crude analysis was performed using Poisson regression models with ro-

bust variance, with behavioral variables as dependent variables. For the adjustment of the model, the gender variable was considered. The prevalence ratio (PR) with a 95% confidence interval (95%CI) was used as a measure of association. For all tests performed, the significance level adopted was 5%.

RESULTS

Of the participants, 74.3% were female and 25.7% were male. Age was stratified by age group, with 49.1% between 18 and 30 years old and 49.4% between 31 and 60 years old. As for the link with the university, 60.2% were academics, 37.4% were employees and 2.4% had both links. Most did not present any comorbidity (74.3%).

More than half of the participants (60.5%) began to carry out their activities at home, while 32.3% continued with face-to-face activities. It was also found that 47.0% of respondents had their family income reduced.

Lifestyle changes regarding smoking, alcohol intake and physical activity are shown in Table 2. The vast majority of participants did not smoke and continued (91.3%), ingested and remained ingesting alcohol (48.8%) in addition to practicing and continuing to practice physical activity (28.2%).

Two hundred and twelve participants (63.5%) reported changes in eating habits. 49.1% had an increase in the amount of food ingested, 12.9% decreased their intake and 38.0% did not observe any changes. As for the frequency of types of meals, 82.3% reported having meals based on in natura and minimally processed foods and 6.3% reported that the meals were based on fast food and ultra-processed foods. Most of the individuals had the consumption of fruits and vegetables (60.2%) and of soft drinks (61.7%) without change, that is, those who consumed continued to consume the same amount and those who did not consume them remained without consuming.

Half of the participants observed weight gain (50.3%), 16.8% lost weight, and 32.9% maintained their body weight. Body weight gain was associated with increased

Table 1 - Lifestyle changes regarding smoking, the use of alcoholic beverages and the practice of physical activity of academics and employees of a federal public university. Uberaba/MG, 2020.

Variable	N	(%)
Smoking habits		
Did not smoke and remained smoke-free	305	91,3
Already had a smoking habit and continued to smoke	19	5,7
Did not smoke and started to smoke	2	0,6
Used to smoke and quit smoking	8	2,4
Alcohol intake		
Did not ingest alcohol and remained without ingesting it	150	44,9
Used to ingest and remained ingesting it	163	48,8
Did not drink alcohol and started drinking it	1	0,3
Used to drink and stopped	20	6
Amount of alcoholic beverage consumed		
Greater amount than before	26	14,46
Same amount as before	77	42,77
Smaller amount than before	77	42,77
Practice of physical activity		
Didn't practice it and remained without practicing it	89	26,6
Used to practice physical activity and continued to practice it	94	28,2
Didn't use to practice physical activity and started to practice it	58	17,4
Used to practice physical activity and stopped practicing it	93	27,8

Source: The authors

Table 2 – Association between anxiety and changes in quality of life and eating habits of academics and employees of a federal public university. Uberaba/MG, 2020.

Variable	Group that increased anxiety (N/%)	Group that did not increase anxiety (N/%)	P
Change in sleep quality			
Yes	200 (74,9%)	12 (17,8%)	0,001*
No	67 (25,1%)	55 (82,1%)	
Sleep quality rating			
Very Good/ Good	90 (33,7%)	40 (59,7%)	<0,001*
Fair/Poor/Very bad	177 (66,3%)	27 (40,3%)	
Change in body weight ¹			
Gain	145 (54,3%)	23 (34,3%)	0,004*
Loss	42 (15,7%)	14 (20,9%)	
Maintenance	80 (30%)	30 (44,8%)	
Change in eating habits			

food intake (PR: 1.76; 95%CI: 1.49-2.07). Association that remained even after adjustment for gender (PR: 1.76; 95%CI: 1.49-2.07).

As for anxiety, 267 people (79.9%) reported noticing increased anxiety during the COVID-19 pandemic. There was an association between social isolation and increased anxiety (p=0.027). The increase in anxiety was associated with changes in sleep quality, body weight and the amount of food ingested (p≤0.05) (Table 2).

In the crude analysis of the data, it was observed that patients with anxiety had a higher prevalence of having altered sleep quality (PR: 1.71; 95%CI: 1.45-2.02), and classifying sleep as regular, bad and very bad (PR: 3.16; 95%CI: 2.01-4.97). Anxiety was also associated with body weight gain (PR: 1.18; 95%CI: 1.04-1.35), changes in eating habits (PR: 1.41; 95%CI: 1.23-1.63) and increased food intake (PR: 1.30; 95%CI: 1.17-1.46).

After the adjusted regression analysis, it was observed that patients with anxiety had higher prevalences for changes in sleep quality, worse sleep quality classification, body weight gain, change in eating habits and increase in the amount of food consumed (p≤ 0.05) (Figure 1).

There was no difference between the prevalence of anxiety and being a health professional or student (PR: 1.05, 95%CI: 0.95-1.17) as well as being a professor, in the administrative area or in direct patient care (PR: 0.97, 95%CI: 0.83-1.14).

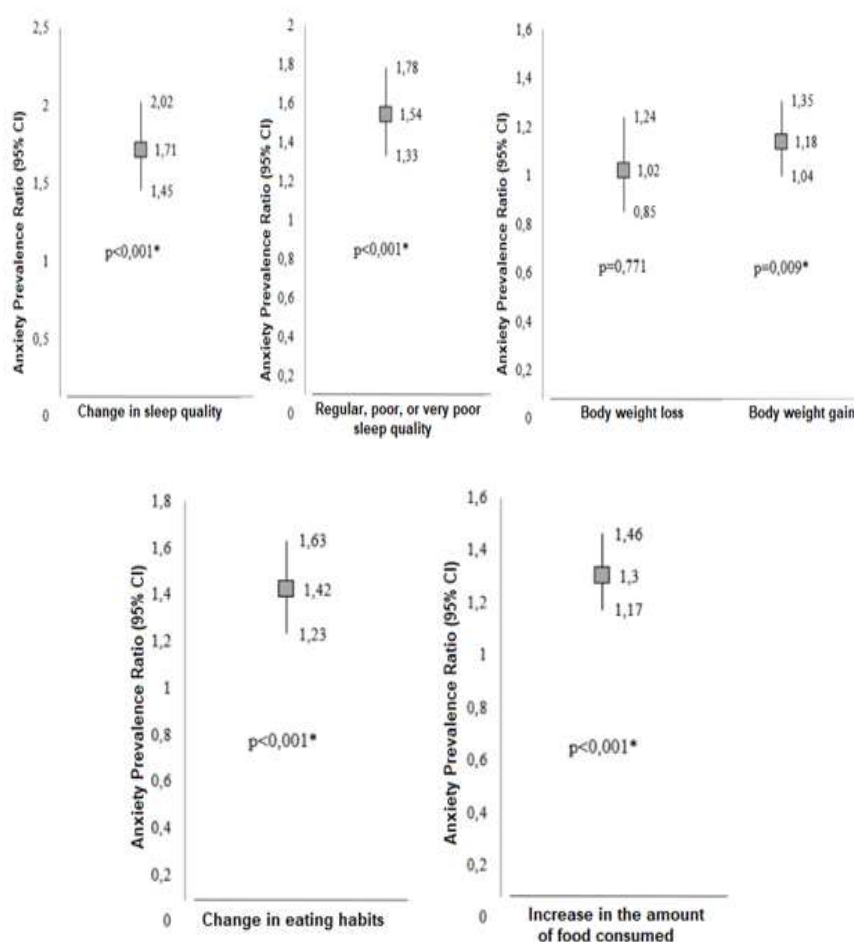
DISCUSSION

The COVID-19 pandemic brought important changes in people's work and study routines, lifestyle, mental health and economic situation. One of the impacts of great relevance and concern is in relation to family income. Our results showed a reduction in family income (47.0%), with reports of total loss of income. This impact seems to occur throughout Brazil 10, as some studies have shown important changes in income reduction, between 55% and 63% of Brazilians, with 7% of the population being totally without their income. 11,12

Yes	190 (71,2%)	22 (32,8%)	0,001*
No	77 (28,8%)	45 (67,2%)	
Change in the amount of food consumed ¹			
Larger	149 (55,8%)	15 (22,4%)	<0,001*
Smaller	37 (13,8%)	6 (9%)	
Equal	81 (30,3%)	46 (68,7%)	
Test: Pearson's Chi-square; ¹ Linear Trend Chi-square.*p<0,05 = statistical significance.			
Source: The authors			

Figure 1. Adjusted analysis of the association between increased anxiety and changes in quality of life and eating habits of academics and employees of a federal public university, Uberaba/MG, 2020.

*P<0.05. Poisson regression with robust (adjusted) variance. Adjust by gender.



As for alcohol consumption and smoking habits, the results did not show any changes, except for the amount of

drink ingested. Part of the interviewees reported lower alcohol consumption during this period. Results that differ from other

studies that show an increase in alcohol consumption during the COVID-19 pandemic by Brazilians. 13,14

Regarding the practice of physical activity, our results show that the pandemic had no impact for more than half of the participants, however, for 28%, exercise practices were cancelled. These data corroborate other studies that observed a decrease in the performance of sufficient physical activity, thus increasing sedentary behavior. 14,15 Such acts may be related to social isolation resulting from the pandemic that determined the closure of academies, home-office work and online classes. 15

In this study, reported anxiety was positively associated with changes in sleep quality. The COVID-19 pandemic has also brought attention to changes related to mental health. 16 There was an increase in anxiety and fear, psychological distress, in addition to sleep disorders. 16–18 The literature reports that reduced sleep quality can negatively affect life satisfaction, health status, and social and emotional domains. In addition, poor sleep quality may be associated with a high risk of falls, reduced immune response, and years of life lived with disability. 17

In many cities, the lockdown was established, with the closure of schools and universities. 16 In the region where this

study was carried out, social distancing was also adopted, most of the participants were carrying out their activities remotely, both academic and work. 4 Society had to live with different stressors, including loneliness, fear of contracting the disease, economic tension and uncertainty about the future. 20

Some studies report that anxiety symptoms can not only increase appetite, but also encourage the intake of more palatable foods, rich in fat, salt and refined carbohydrates as a way to reduce negative symptoms. 20,21 It is noted that weight gain was associated with an increase in the amount of food consumed, 21,22 with worsening in the quality of food, greater frequency of food consumption during the day and increased intake of sweets, soft drinks, alcohol, pasta and bakery items. In the present study, the results showed similar data regarding increased appetite and greater intake of the amount of food in weight gain, associated with self-reported anxiety. And it differs in terms of the quality of the food consumed, since most participants (63%) were eating fresh and minimally processed foods, only 6.3% reported frequent consumption of fast-food and ultra-processed foods.

This study has as a limitation, the form of data collection via an online form, sin-

ce it may not reach all population strata, considering that not everyone has access to the internet. However, it should be noted that in the context of the pandemic, data collection via the internet and the chain sampling process is an ethically plausible, low-cost and safe method for participants and researchers.

CONCLUSION

It was possible to observe an increase in anxiety in most participants, associated with social isolation, change in sleep and worse classification of its quality, in body weight gain, in the change in eating habits and in the amount of food ingested. Regarding eating habits, it was found that body weight gain was associated with increased food intake.

The pandemic has brought a new reality to society and is associated with an increase in health-related risk behaviors. Social isolation was important and necessary for better control of the spread of the virus, however, it is necessary to discuss health policies and actions that can minimize the consequences arising from this isolation for the academic community in a pandemic situation in relation to lifestyle.

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