

Lifestyle and mental health in conditions of the COVID-19 pandemic in a sample of people from the city of Medellín, Colombia

Estilo de vida y la salud mental en condiciones de pandemia de COVID-19 en una muestra de personas de la ciudad de Medellín, Colombia

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SUMMARY

It is important to analyze the experience of the COVID-19 pandemic, identifying factors that allowed the population to mitigate its negative effects on mental health. The present study was oriented to identify factors related to lifestyle and its relationship with mental health in a sample of adults in the city of Medellín, Colombia, during quarantine in the context of the COVID-19 pandemic. The study was quantitative, cross-sectional, non-experimental, and descriptive level. The Pender (1996) lifestyle profile questionnaire (PEPSI-I) and the Derogatis (1994) SCL-90-R symptom inventory were applied to the sample of 100 people, selected utilizing a call on social networks. The results indicate that better lifestyle habits related to self-actualization, interpersonal support, stress management, health responsibility, and exercise during

the pandemic and in quarantine situations were related to a decrease in negative mental health symptoms.

Keywords: *Mental health, lifestyles, social distancing, COVID-19.*

RESUMEN

Es importante analizar la experiencia de la pandemia de COVID-19 identificando factores que permitieron a la población mitigar los efectos negativos de esta en la salud mental. El presente estudio se orientó a identificar factores relacionados con estilo de vida y su relación con la salud mental en una muestra de personas adultas en la ciudad de Medellín, Colombia, durante la cuarentena en el contexto de la pandemia COVID-19. El estudio fue cuantitativo, de corte

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transversal, no experimental, nivel descriptivo. A la muestra de 100 personas, seleccionada mediante la convocatoria en redes sociales, se aplicó el cuestionario de perfil de estilo de vida (PEPSI-I) de Pender (1996) y el inventario de síntomas SCL-90-R de Derogatis (1994). Los resultados indican que mejores hábitos de vida relacionados con autoactualización, soporte interpersonal, manejo de estrés, responsabilidad en salud y ejercicio durante el tiempo de pandemia y en situación de cuarentena se relacionaron con disminución de la sintomatología negativa en salud mental.

Palabras clave: *Salud mental, estilos de vida, distanciamiento social, COVID-19.*

INTRODUCTION

Concern about the mental health of the population at an international level has become a highly relevant issue in the last decade of the current century due to the increase in risk factors. In this sense, studies show an important relationship between mental health and lifestyle habits associated with healthy lifestyles, indicating the importance of studying specific behaviors directly related to the development or maintenance of which are healthy lifestyles and habits that promote general biopsychosocial well-being (1).

The World Health Organization defines healthy lifestyles as a process of interaction between objective and broader living conditions and individual behavior patterns, the latter being subject to change and modification (2).

According to the above-mentioned (3) these patterns or behaviors such as diet, physical activity, sleep, substance use, and excess alcohol, among others, act as factors that affect health, forming part of a lifestyle. It is necessary to highlight that the areas of life at the individual level can suffer significant alterations from objective and uncontrollable changes in the external conditions of people life (4).

In this order of ideas (5), the health emergency experienced by humanity from COVID-19 pandemic has caused negative effects on the level of mental health in the population around the world, at the same time, their habits and styles of life affected by mandatory social distancing,

quarantine and change in socioeconomic living conditions (6).

Studies carried out in different countries since the start of the pandemic indicate an increase in rates of generalized anxiety, depression, fear of death and contagion, sleep disturbances and eating habits, suicidal ideation, and a general decrease in quality of life (7).

Among the effects of quarantine or mandatory social distancing decreed by the governments of all countries in the absence of specific medical treatments, some authors highlight loneliness and its incidence in the emergency of anxiety, depression, and affectation of quality of life (8). Studies suggest that prolonged confinement is related to psychological damage, considering that individuals are subjected to stressful factors for a long period, and in some cases, psychic affectations are present many months after the end of this confinement (9).

Thus, the effects of the COVID-19 pandemic on mental health, reflected in people's lifestyles, are usually devastating, according to what the studies carried out to date have indicated (10).

The quarantine situation was associated with significant psychological consequences for people (11); where the stress caused by the pandemic produced manifestations of anxiety and fear, sadness reactions, and depressive symptoms, including the propensity to develop addictive behaviors. The situation of the global pandemic, being an event that alters the normal life habits of people, associated with a real threat to their lives, implies considering the possibility, for a sector of the population, of developing medium- and long-term anxiety, mood disturbance, and post-traumatic stress disorder (12).

Although humanity currently has vaccines that have made it possible to control the virus and reduce mortality, the eventual possibility that another event equal to or worse than the COVID-19 pandemic could happen again is very real, and it is necessary to carry out studies. related to the protective factors of people's mental health, to mitigate the devastating effects derived from this type of event (13).

In this order of ideas, few existing studies indicate that the use of healthy lifestyle habits during the pandemic and in a quarantine situation

has made it possible to improve and even prevent adverse psychological reactions that affect the mental health and quality of life of people (6). For example, the study indicates that increased physical activity during quarantine isolation was associated with better mental health, being associated with less anxiety, depression, stress, and insomnia, and greater perceived well-being. Fullana et al. (14) also state that the use of lifestyle habits such as a healthy and balanced diet, following entertainment routines, not reading news and updates about COVID-19 very frequently, taking advantage of the time to devote to hobbies, and staying the air free or looking outside were identified as better predictors of lower levels of depressive symptoms (14).

In line with the above, the present study carried out in Medellín, Colombia, was oriented to investigate the characteristics of the lifestyle in a sample of people between 18 and 60 years of age and its relationship with mental health symptoms that the participants manifested during COVID-19 pandemic time in the situation of mandatory social distancing or quarantine. The contribution of this research consists in the fact that not only aspects generally considered, such as physical activity, nutrition, and daily routines, but also variables such as stress management, health responsibility, interpersonal support, and self-actualization, as broader elements that characterize lifestyle and attitudes related to self-care, not only physical but also psychological and spiritual.

METHODOLOGY

Type of Study

Research with a quantitative approach, descriptive level, cross-section, and non-experimental method, ex post facto.

Participants

The study sample was made up of 100 people of legal age, inhabitants of the city of Medellín, selected employing a “snowball” sampling from the call on social networks, due to the situation of mandatory social distancing during the months of the COVID-19 pandemic between August and

October 2020. 100 % of the participants belonged to the urban area of residence. Regarding age, the highest percentage (56.9 %) were people between 18 and 29 years old, followed by the age group between 30 and 40 years (30.4 %) and a lower frequency in the age range between 41 and 60 years (12.7 %). The female gender represented 55.9 % of the sample and 44.1 % corresponded to the male gender. According to educational level, the highest percentage was occupied by people with a university degree (52 %), with a postgraduate degree (16.7 %), technologists (12.7 %), technicians (9.8 %), and with secondary education (8.8 %). In their marital status, they were single with 62.7 %, married people (11.8 %), divorced (2 %), separated (3.9 %), in a free union (17.6 %), and widowed (2 %). Most of the participating people did not have children 78.4 %, followed by people with 1 child (13.7 %), with 2 children (5.9 %), and with 3 (2 %). The occupation with the highest percentage was employed professionals (60.8 %), and in second place, students (25 %).

Instruments

For the assessment of symptoms related to mental health, the symptom inventory SCL-90-R by Derogatis (1994) was used, adapted to Spanish by Casullo and Pérez (2008). The analysis of the psychometric properties of the inventory in the Argentine population showed good levels of internal consistency for all the subscales (Cronbach's Alpha from 0.72 to 0.86) and for the general index $\alpha=0.96$. The 90-item inventory is organized in the Likert scale format with 5 response options: none, very little, little, quite a lot, and a lot, and evaluates a total of nine symptoms: somatizations, obsessions, and compulsions, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism, the instrument applying to people between 13 and 65 years of age (15).

To analyze the life habits of the people surveyed, the Pender (1996) lifestyle profile questionnaire (PEPSI-I) was applied, made up of 48 items and organized in the Likert scale format with a sequence of 4 types of response: never, sometimes, frequently, routinely. The scale has 6 subscales: exercise, nutrition, stress management,

health responsibility, interpersonal support, and self-actualization. In the Peruvian population, the questionnaire indicated a global Cronbach's Alpha of 0.94, indicating good reliability and in the Colombian population, an α between 0.67 and 0.83 was shown for the subscales.

Procedure and ethical aspects

The collection of information was carried out through the application of the online google forms questionnaire through the call on social networks. Complying with the ethical regulations corresponding to studies with human beings, the informed consent was signed, also virtually.

Analysis of data

The normality test of the distribution of the study variables indicated that all the variables showed a non-parametric distribution. Based on the above, for the comparison of values of variables by groups, the Mann-Whitney U statistic was used in the case of two groups, and the Kruskal-Wallis in the case of more than two groups. For the correlation of variables, the Spearman statistic was used.

RESULTS

Descriptive data of the study variables

Regarding the lifestyle variables, it was found that the people surveyed scored at a medium-high level in self-actualization (M 3.2 (SD 0.6) and interpersonal support (M 3.1 (SD 0.5). Identified the median scores in the variables of nutrition (M 2.9 (SD 0.6), exercise (M 2.7 (SD 0.7), and stress management (M 2.5 (SD 0.5), with a low score in the responsibility in health (M 2.2 (SD 0.4) (Table 1).

The descriptive values of mental health symptoms indicated higher values in obsessions and compulsions (M 1.2 (SD 0.8), followed by depression (M 0.9 (SD 0.8), interpersonal sensitivity (M 0.8 (SD 0.7), somatizations (M 0.8 (SD 0.6), paranoid ideation (M 0.8 (SD 0.6), anxiety (M 0.7 (SD 0.7), hostility (M 0.6 (SD 0.5) and phobic anxiety (M 0.5 (SD 0.3) (Table 2).

Table 1. Descriptive values of lifestyle variables

| Variables | Mean (SD) | Reference values |
|--------------------------|-----------|------------------|
| Nutrition | 2.9(0.6) | 1-4 |
| Exercise | 2.7(0.7) | 1-4 |
| responsibility in health | 2.2(0.4) | 1-4 |
| Stress management | 2.5(0.5) | 1-4 |
| interpersonal support | 3.1(0.5) | 1-4 |
| auto-update | 3.2(0.6) | 1-4 |

Source: self-made

Table 2. Descriptive values of the symptoms

| Variables | Mean (SD) | benchmark score |
|----------------------------|-----------|-----------------|
| Somatizations | 0.8 (0.6) | 0-4 |
| Obsessions and compulsions | 1.2 (0.8) | 0-4 |
| Interpersonal sensitivity | 0.8 (0.7) | 0-4 |
| Depression | 0.9 (0.8) | 0-4 |
| Anxiety | 0.7 (0.7) | 0-4 |
| Hostility | 0.6 (0.5) | 0-4 |
| Phobic anxiety | 0.5 (0.3) | 0-4 |
| Paranoid ideation | 0.8 (0.6) | 0-4 |
| Psychoticism | 0.6 (0.4) | 0-4 |

Source: self-made

Regarding mental health symptoms and considering the reference values with T scores, it was observed that none of the variables related to the symptoms showed scores higher than 63, indicating the absence of risk in the study sample (Table 3).

Comparison of variable values according to groups of sociodemographic variables

The comparison of lifestyle variables according to gender (Table 4), indicated a statistically significant difference ($p=0.004$) in the nutrition variable, health responsibility ($p=0.040$), and interpersonal support ($p=0.010$) in favor of the female gender.

Regarding mental health symptoms, the presence of a statistically significant difference was identified in the variables of somatizations ($p=0.008$), obsessions and compulsions ($p=0.025$), interpersonal sensitivity ($p=0.015$), depression ($p=0.011$), anxiety ($p=0.013$) and phobic anxiety ($p=0.007$), all scoring higher in the female gender.

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Table 3. Descriptive values of the symptoms

| Variables | Male Median (IR) | T | Female Median (IR) | T |
|----------------------------|---------------------|-------|-----------------------|-------|
| Somatizations | 0.5(0.8) | 50-55 | 0.7(1) | 45-50 |
| Obsessions and compulsions | 1.0(1.0) | 50-55 | 1.2(0.8) | 50 |
| Interpersonal sensitivity | 0.4(0.9) | 45-50 | 0.9(1.1) | 45-50 |
| Depression | 0.6(0.8) | 50-55 | 1.0(1.1) | 50 |
| Anxiety | 0.3(0.6) | 45-50 | 0.6(1) | 45-50 |
| Hostility | 0.3(0.6) | 45-50 | 0.5(0.7) | 45 |
| Phobic anxiety | 0.0(0.3) | 30 | 0.3(1,1) | 50-55 |
| Paranoid ideation | 0.5(0.8) | 45-50 | 0.8(1.1) | 45-50 |
| Psychoticism | 0.3(0.6) | 50 | 0.5(1) | 45-50 |

Source: self-made

Table 4. Comparison of lifestyle variables according to gender

| Variables | Male Median (IR) | Female Median (IR) | U for Mann Whitney | p-value |
|----------------------------|---------------------|-----------------------|-----------------------|---------|
| Nutrition | 2.7(.9) | 3.3(1) | 855,500 | 0.004 |
| Exercise | 2.8(1) | 2.8(1.4) | 1 239,500 | 0.771 |
| Responsibility in health | 2.1(0.6) | 2.5(0.3) | 978,000 | 0.040 |
| Stress management | 2.4(0.7) | 2,4(0.3) | 1 090,500 | 0.195 |
| Interpersonal support | 3.0(0.6) | 3.3(0.8) | 902,000 | 0.010 |
| Auto-update | 3.2(0.8) | 3.4(.7) | 1 105,500 | 0.233 |
| Somatizations | 0.5(0.8) | 0.7(1) | 891,000 | 0.008 |
| Obsessions and compulsions | 1.0(1.0) | 1.2(.8) | 949,500 | 0.025 |
| Interpersonal sensitivity | 0.4(0.9) | 0.9(1.1) | 922,500 | 0.015 |
| Depression | 0.6(0.8) | 1.0(1.1) | 903,500 | 0.011 |
| Anxiety | 0.3(0.6) | 0.6(1) | 913,500 | 0.013 |
| Hostility | 0.3(0.6) | 0.5(0.7) | 1 133,000 | 0.312 |
| Phobic anxiety | 0.0(0.3) | 0.3(1.1) | 899,500 | 0.007 |
| Paranoid ideation | 0.5(0.8) | 0.8(1.1) | 1 086,500 | 0.185 |
| Psychoticism | 0.3(0.6) | 0.5(1) | 1 041,000 | 0.100 |

Source: self-made

The comparison of the study variables according to the age ranges (Table 5) indicated a statistically significant difference in the stress management variable ($p=0.013$), presenting an increase in the score with increasing age.

Regarding the mental health variables, a statistically significant difference was presented in the interpersonal sensitivity variable ($p=0.034$), showing higher values in the younger age range. Likewise, a statistically significant difference was found in the symptoms of anxiety ($p=0.048$)

and phobic anxiety ($p=0.010$), indicating higher values in the age range between 40-60 years.

The comparison of study variables according to the educational level of the participants (Table 6) did not present a statistically significant difference in the lifestyle variables.

Regarding the mental health symptoms, it indicated a significant difference in the variable of somatizations ($p=0.011$), interpersonal sensitivity ($p=0.002$), depression ($p=0.045$),

Table 5. Comparison of study variables according to age

| Variables | 18-29 Median (IR) | 30-40 Median (IR) | 40-60 Median (IR) | Chi-Squared | p-value |
|----------------------------|----------------------|----------------------|----------------------|-------------|---------|
| Nutrition | 2.9 (0.9) | 3.2 (0.9) | 3.0 (1.3) | 0.88 | 0.644 |
| Exercise | 3 (1.2) | 2.8(0.8) | 2.2 (1.2) | 2.84 | 0.275 |
| responsibility in health | 2.1 (0.8) | 2.2(0.5) | 2.3 0(0.9) | 1.29 | 0.466 |
| Stress management | 2.3 (0.6) | 2.6(0.6) | 2.8 (0.7) | 8.26 | 0.013 |
| Interpersonal support | 3.1 (0.7) | 3.1(0.7) | 3 (0.7) | 0.519 | 0.771 |
| Auto-update | 3.4 (0.7) | 3.2(1.1) | 3.3 (0.7) | 2.245 | 0.325 |
| Somatizations | 0.8 (0.8) | 0.4(0.8) | 0.6 (1.0) | 3.873 | 0.144 |
| Obsessions and compulsions | 1.0 (1.1) | 1.2 (1.1) | 1.1 (0.6) | 0.674 | 0.714 |
| Interpersonal sensitivity | 0.8 (1.1) | 0.3 (0.8) | 0.6 (0.5) | 6.41 | 0.034 |
| Depression | 0.9 (1.1) | 0.7 (0.8) | 0.8 (1.0) | 1.84 | 0.582 |
| Anxiety | 0.5 (0.8) | 0.3 (0.6) | 0.6 (0.8) | 6.94 | 0.048 |
| Hostility | 0.5 (0.7) | 0.3 (0.7) | 0.5 (0.5) | 4.593 | 0.101 |
| Phobic anxiety | 0.2(1.0) | 0.1 (0.2) | 0.3 (1.9) | 9.303 | 0.010 |
| Paranoid ideation | 0.8 (1.3) | 0.5 (0.7) | 0.7 (0.7) | 3.863 | 0.145 |
| Psychoticism | 0.5 (1.0) | 0.3 (0.6) | 0.3 (0.9) | 2.130 | 0.345 |

Source: self-made

Table 6. Comparison of study variables according to educational level

| Variables | Secondary Median (IR) | Technique/ technology Median (IR) | Undergraduate Median (IR) | Graduate Median (IR) | Chi-Squared | p-value |
|----------------------------|-----------------------------|---|---------------------------------|----------------------------|-------------|---------|
| Nutrition | 3.3(1.3) | 2.7(1.0) | 3(1.0) | 3.2(1) | 2.088 | 0.554 |
| Exercise | 2.8(1.2) | 2.4(1.8) | 3(1.1) | 2.6(.8) | 3.758 | 0.289 |
| Responsibility in health | 2(0.6) | 2.4(0.6) | 2.1(0.8) | 2.3(0.5) | 2.602 | 0.457 |
| Stress management | 2.3(0.4) | 2.4(0.7) | 2.4(0.6) | 2.7(0.6) | 6.075 | 0.108 |
| Interpersonal support | 2.9(0.4) | 3.1(0.7) | 3.2(0.9) | 3.3(0.7) | 3.614 | 0.306 |
| Auto-update | 3.2(0.7) | 3.3(.7) | 3.2(.7) | 3.4(1) | 0.502 | 0.918 |
| Somatizations | 0.3(1) | 0.5(0.7) | 0.8(0.7) | 0.7(0.6) | 11.075 | 0.011 |
| Obsessions and compulsions | 1(1.5) | 1(1) | 1.2(1.1) | 1(1.4) | 2.678 | 0.444 |
| Interpersonal sensitivity | 1(1.5) | 1.8(1) | 0.2(0.6) | 0.4(0.6) | 14.706 | 0.002 |
| Depression | 0.1(1.2) | 0.4(1.2) | 0.6(0.8) | 0.4(1) | 7.620 | 0.045 |
| Anxiety | 0.3(1.1) | 0.4(0.6) | 0.7(0.8) | 0.6(0.5) | 9.985 | 0.019 |
| Hostility | 0.5(1.3) | 0.5(0.7) | 0.5(0.7) | 0.4(0.6) | 6.239 | 0.101 |
| Phobic anxiety | 0.0(1.3) | 0.0(0.3) | 0.3(0.8) | 0.3(0.1) | 12.447 | 0.006 |
| Paranoid ideation | 1.3(1.2) | 0.8(0.8) | 0.5(1.0) | 0.3(0.5) | 11.973 | 0.007 |
| Psychoticism | 0.4(1.3) | 0.6(0.9) | 0.3(0.9) | 0.2(0.5) | 8.392 | 0.039 |

Source: self-made

anxiety ($p=0.019$), and phobic anxiety ($p=0.006$), showing higher values in the groups with a higher educational level.

In contrast, in the variable of paranoid ideation ($p=0.007$) and psychoticism ($p=0.039$), the

highest score was associated with the lowest educational level.

Regarding the comparison of study variables according to the marital status groups and the type of occupation of the participants, no statistically significant difference was identified, indicating

the absence of association of the variables studied with these sociodemographic characteristics.

Correlations between lifestyle variables and mental health symptoms

Table 7 presents the results of correlations found between lifestyle variables and mental health symptoms in the study sample.

Regarding the correlation between lifestyle variables and mental health symptoms, a medium, negative, and significant correlation was identified between exercise and somatizations ($r = -0.438/p = 0.024$), obsessions and compulsions ($r = -0.291/p = 0.044$) and anxiety ($r = -0.237/p = 0.017$). This indicates that the higher the level of exercise use, the lower the level of these symptoms.

Similarly, a negative, median, and significant correlation was identified between health responsibility and the variables of obsessions and compulsions ($r = -0.243/p = 0.014$), hostility ($r = -0.279/p = 0.042$), and ideation. paranoid ($r = -0.369/p = 0.006$), showing that a higher level of responsibility in health implies less manifestation in the above symptoms.

Stress management yielded medium, negative, and significant correlations with almost all symptom variables: obsessions and compulsions ($r = -0.326/p = 0.022$), interpersonal sensitivity ($r = -0.302/p = 0.002$), depression ($r = -0.436/p = 0.017$), hostility ($r = -0.319/p = 0.027$), phobic anxiety ($r = -0.428/p = 0.021$), paranoid ideation ($r = -0.484 / p = 0.004$) and psychoticism ($r = -0.223/p = 0.024$). This shows the importance of stress management for the reduction of previous symptoms.

The personal support variable also showed medium, negative, and significant correlations with several symptom variables such as obsessions and compulsions ($r = -0.274/p = 0.041$), interpersonal sensitivity ($r = -0.251/p = 0.011$), depression ($r = -0.470/p = 0.038$), anxiety ($r = 0.213/p = 0.032$), phobic anxiety ($r = -0.397/p = 0.047$), paranoid ideation ($r = -0.327/p = 0.001$) and psychoticism ($r = -0.299/p = 0.045$), indicating that the higher the level of personal support the study participants reported lower scores in the above symptoms.

And, finally, the self-actualization variable showed a negative, median, and significant

correlation with the variables of somatizations ($r = -0.577/p = 0.0001$), obsessions and compulsions ($r = -0.434/p = 0.001$), interpersonal sensitivity ($r = -0.340/p = 0.001$), depression ($r = 0.615/p = 0.0001$), anxiety ($r = -0.368/p = 0.0001$), hostility ($r = -0.288/p = 0.003$), phobic anxiety ($r = -0.391/p = 0.003$), paranoid ideation ($r = -0.313/p = 0.001$) and psychoticism ($r = -0.463/p = 0.0001$), showing, likewise, the importance of this lifestyle variable for the reduction of the above symptoms.

DISCUSSION

The results indicated that in the study sample, the presence of risk was not identified in any of the mental health symptoms assessed, considering that they were in the situation of the pandemic and a condition of social distancing due to the mandatory quarantine (16). However, even outside the risk range, higher scores can be observed in the variables of obsessions and compulsions, depression, anxiety, and somatizations, which could be precisely due to the situation of the pandemic and the presence of a real and permanent risk of contagion and even eventual death (17). In this aspect, the present study is consistent with the results indicated in other investigations (18).

The fact that the risk in mental health symptoms was not identified in the sample of the current study could be related to medium-high scores identified in the variables of self-actualization and interpersonal support as constitutive of the valued lifestyle construct, as well as good scores in the variables of exercise and stress management (19). Likewise, the variable of responsibility in health, being its score below the other variables, showed good scores, being at the average level (20).

The above variables related to lifestyle habits seem to have acted as protective factors for different aspects of mental health in the pandemic situation in the sample of the present study. In this regard, the results showed a negative and statistically significant correlation between self-actualization and somatizations, obsessions and compulsions, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism, showing that the higher the level of self-actualization, fewer

Table 7. Correlation between lifestyle variables and symptoms

| Correlated variables | Rho Spearman | P |
|--|--------------|--------|
| Exercise/somatizations | -0.438* | 0.024 |
| Exercise/obsessions and compulsions | -0.291* | 0.044 |
| exercise/anxiety | -0.237* | 0.017 |
| Health responsibility/obsessions and compulsions | -0.243* | 0.014 |
| Health liability/hostility | -0.279* | 0.042 |
| Health responsibility/paranoid ideation | -0.369* | 0.006 |
| Stress management/obsessions and compulsions | -0.326* | 0.022 |
| Stress management/interpersonal sensitivity | -0.302** | 0.002 |
| Stress/depression management | -0.436* | 0.017 |
| Stress/hostility management | -0.319* | 0.027 |
| Managing stress/phobic anxiety | -0.428* | 0.021 |
| Stress management/ paranoid ideation | -0.484** | 0.004 |
| Stress management/psychoticism | -0.223* | 0.024 |
| Interpersonal Support/Obsessions and Compulsions | -0.274* | 0.041 |
| Interpersonal support/interpersonal sensitivity | -0.251* | 0.011 |
| Interpersonal support/depression | -0.470* | 0.038 |
| Interpersonal support/anxiety | -0.213* | 0.032 |
| interpersonal support/ phobic anxiety | -0.397* | 0.047 |
| Interpersonal support/paranoid ideation | -0.327** | 0.001 |
| Interpersonal support/psychoticism | -0.299* | 0.045 |
| Self-updating/somatizations | -0.577** | 0.000 |
| Self-actualization/obsessions and compulsions | -0.434** | 0.001 |
| Self-actualization/interpersonal sensitivity | -0.340** | 0.0001 |
| Self-update/ depression | -0.615** | 0.0001 |
| self-actualization/anxiety | -0.368** | 0.0001 |
| Self-update/ hostility | -0.288** | 0.003 |
| Self-actualization/phobic anxiety | -0.391** | 0.003 |
| Self-update/ paranoid ideation | -0.313** | 0.001 |
| self-actualization/psychoticism | -0.463** | 0.0001 |

**Correlation is significant at the 0.01 level (bilateral)

*Correlation is significant at the 0.05 level (bilateral)

mental health symptoms were observed almost in all the variables evaluated (21).

It is important to highlight that the self-actualization variable estimates the existential commitment to one's own life, optimism regarding their abilities and capacities for self-realization, and orientation toward the search for deep meanings in their own life (22). In this regard, studies at a general level indicate that personological aspects such as spirituality, a tendency towards personal growth, self-actualization, and self-actualization are associated with a higher level of psychological well-being and better mental health in people (23).

Regarding the studies carried out during the pandemic, other authors also indicate that spirituality and a lifestyle oriented towards altruism and transcendence acted as predictors of better mental health during the adverse situation of the COVID-19 pandemic (24).

Another of the variables that presented an inverse relationship with the mental health symptomatology assessed was the variable of interpersonal support (25). In this regard, the results of this study confirm the findings of other studies that affirm a positive effect of interpersonal support, emotional support, and the possibility of sharing emotions and concerns

with their support networks on people's mental health (26).

Likewise, the factor of interpersonal support networks was decisive in the process of coping with the COVID-19 pandemic, indicating that loneliness was a risk factor for suffering depression-anxiety comorbidity due to the outbreak of coronavirus (27).

It is also important to highlight that the stress management variable as part of the lifestyle construct showed an inversely proportional relationship to mental health symptoms such as obsessions and compulsions, interpersonal sensitivity, depression, hostility, phobic anxiety, paranoid ideation, and psychoticism during the time of the pandemic in the study sample (28). As in the previous variables, this data is in line with other studies that indicate the importance of having emotion management skills and coping strategies that reduce the stress caused by adverse and potentially dangerous situations such as the COVID-19 pandemic (29).

Likewise, a negative and significant correlation was identified between health responsibility as a habit and vital attitude and the variables of obsessions and compulsions, hostility, and paranoid ideation, showing that a higher level of health responsibility implies less manifestation in the above symptoms. This shows, that self-care and adherence to the protection routines required during the pandemic allowed the people in the sample to reduce their levels of anxiety and fear in the face of possible contagion (30).

And finally, the habit of physical exercise also showed a positive contribution to the reduction of somatizations, obsessions and compulsions, and anxiety during the pandemic in the participants of this study. Along the same lines, the study's (31) indicated that greater physical activity during quarantine isolation is related to better mental health, being associated with less anxiety, depression, stress, and insomnia and greater perceived well-being (32).

Regarding the sociodemographic variables, a statistically significant difference was observed in the gender variable related to various aspects of both lifestyles and mental health symptoms.

In this aspect, women presented higher scores in nutrition, health responsibility, and interpersonal support (33). These results could be related, first of all, to the general trend that is attributed to the female gender of being more careful with food and paying more attention to the symptoms of physical and emotional discomfort as well as having a greater tendency towards the construction of social networks of psychological and emotional support (34). And in second place, this could also be related to the fact that the women in the sample also presented higher scores in somatizations, obsessions and compulsions, interpersonal sensitivity, depression, anxiety, and phobic anxiety (35). The higher level of awareness, as well as the concern not only for themselves but also for their families, could have influenced a greater manifestation of mental health problems in the women in the study sample. Studies also indicate that the female gender showed higher rates of depression, anxiety, and psychological and physical discomfort at a general level during the COVID-19 pandemic (36).

Regarding the age variable, the best stress management was presented as age increased, showing that older people spent more time relaxing, sleeping routines, and taking care of themselves during the pandemic (37). Notwithstanding the foregoing, an increase in anxiety was observed in older people, reaching higher scores in the age range between 40 and 60 years, which could be related to the greater danger that the virus represented for older people, these data being similar to other studies that indicate the presence of greater mental health difficulties in adults and older adults during the COVID-19 pandemic (38).

Regarding the educational level of the participants, an increase in some mental health symptoms such as somatizations, interpersonal sensitivity, depression, anxiety, and phobic anxiety was observed in people with a higher educational level, with findings that are consistent with other studies considering that a higher educational level could probably be related to a higher level of awareness about the real situation and the respective degree of awareness about the threat represented by the pandemic (39).

CONCLUSIONS

At a general level, it is observed in the results of this study that better life habits related to self-actualization, interpersonal support, stress management, responsibility in health, and exercise during the pandemic and in quarantine, situations were related to fewer negative health mental symptoms.

One of the most relevant contributions consists of the finding of a positive contribution that showed the aspect of spirituality and personal updating, adding to the search for meaning in life and personal transcendence to mental health in the study sample during the pandemic COVID-19. The foregoing makes it possible to reinforce the line of studies in the field of positive psychology, addressing mental health as a self-actualizing tendency based on the empowerment of human capacities, both in normal living conditions and in unusual and threatening situations such as an example of the recent COVID -19 pandemic (40-44).

Another relevant contribution is the importance of considering the differential gender approach in the analysis of the behavior of human beings in emergencies, due to the difference in the way of interpreting and considering the vital values and priorities of both genders. It is necessary to continue deepening the study of these differential aspects, to manage health care and intervention strategies with a gender approach in this type of situation that threatens the mental health of people, such as the COVID-19 pandemic (19).

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