Quality of life and mental health after isolating measures established during the Covid-19 pandemic

Calidad de vida y salud mental tras las medidas de aislamiento establecidas durante la pandemia del Covid-19

Yenny Vicky Paredes-Arturo Alexandra Marcela Cánchala-Obando Laurin Rengifo-Rengifo* Diego Mauricio Diaz

[1]PhD. Psicología. Universidad Mariana. Facultad de Humanidades y Ciencias Sociales. Grupo Desarrollo humano y Social. Programa de Psicología. Pasto. Colombia.

[2]Magister en Discapacidad. Universidad Mariana. Facultad de Ciencias de la Salud. Grupo. Bienestar Ocupacional Humano. Programa de Terapia Ocupacional. Pasto. Colombia.

[3]Psicólogo. Universidad Mariana. Facultad de Humanidades y Ciencias Sociales. Grupo Desarrollo humano y Social. Programa de Psicología. Pasto. Colombia.

[4]PhD Universidad de Edimburgo. Centro de Política en Salud Global. Edimburgo, Reino Unido.

Autor de correspondencia: *Laurin Rengifo-Rengifo, E-mail: laurinrengifo@umariana.edu.co

Received: 09/26/2021 Accepted: 12/15/2022 Published: 12/25/2022 DOI: https://doi.org/10.5281/zenodo.7658416

Abstract

Quality of life is a construct of significant relevance for the general population and must be studied in a multidimensional way particularly during a pandemic or endemic. The objective of this study was to assess quality of life levels and its relationship with anxiety, depression, and stress for a population living through the Covid-19 endemic. Methodologically, this is a descriptive and cross-sectional study evaluating 384 people over 18 years old. The study applied the WHOQOL-BREF and the abbreviated DASS-21 tests to assess quality of life and emotional symptoms. Results: participants reported an adequate perception of quality of life and mild emotional systems. Likewise, the study observed correlation between the variables analyzed (-0.72 and -0.95).

Keywords: Quality of life, depression, anxiety, stress, emotional, endemic.

Resumen

La calidad de vida es un constructo de gran relevancia para la población general y debe ser estudiada de manera multidimensional particularmente durante una pandemia o endemia. El objetivo de este estudio fue evaluar los niveles de calidad de vida y su relación con la ansiedad, la depresión y el estrés de una población que vive la endemia del Covid-19. Metodológicamente, se trata de un estudio descriptivo y transversal que evaluó a 384 personas mayores de 18 años. El estudio aplicó las pruebas WHOQOL-BREF y abreviada DASS-21 para evaluar la calidad de vida y los síntomas emocionales. Resultados: los participantes relataron una percepción adecuada de la calidad de vida y sistemas emocionales leves. Asimismo, el estudio observó correlación entre las variables analizadas (-0,72 y -0,95).

Palabras claves: Calidad de vida, depresión, ansiedad, estrés, emocional, endémica.

Introduction

The SARS-CoV-2 pandemic led governments across the world to pursue different measures to curb the problem. Some of the measured included preventive isolation and social distancing to reduce virus contagion by social contact[1]. Although these strategies seem to have fulfilled their objective of controlling the contagion curve, the psychological, economic, and social implications have been the subject of scientific interest, especially those related to population's mental health[2]. It is suggested that social isolation in a quarantine context could be associated with a greater mortality risk, negative emotional symptoms, and quality of life deterioration[3]. The issues just mentioned could be the product of restricted social interaction during quarantines - the latter being paramount for people to have a good mental health. Lack of social interaction can decrease quality of life perceptions, possibly attributed to the abrupt change in habits and lifestyles quarantine subjects endure[4].

Therefore, people's life quality is a topic of significant relevance and studies on this area should take a multidimensional lens to analyse it. Such multidimensional lens entails that research should study variables like physical health, emotional state, level of functionality, social relationships, and people's interaction with the environment. All these variables must be considered the individual's perception on quality of life and well-being[5]. Previous studies have reported that in situations of isolation due to epidemics, people are more predisposed to develop emotional disorders and endure great mental health challenges, possibly attributed to the loss of habits, routines, and psychosocial stress[6]. Additionally, people in confinement are at greater risk of experiencing a wide range of negative emotions and feelings regarding loss of control. Therefore, people are likely to feel less safe in their physical environments, thereby implementing excessive self-care practices or health behaviours[7].

Mental health is another key area of study in times of pandemics. It is determined as an essential factor of health and it mani-

fests a state of integral well-being[8]. The rapid transmission of the COVID-19 pandemic, the higher mortality rate, self-isolation, social distancing, and quarantine could have significantly increased the incidence on mental health[9]. It is known that psychological factors play an important role in the management of infectious diseases. Psychological reactions that derive from pandemics include a wide range of maladaptive behaviors, defensive responses, and emotional disorders[10]. Consequently, in the recent pandemic situation, most people are exposed to stressful events, thereby increasing anxious and depressive symptoms, due to the presence of traumatic events, directly affecting the vulnerable population. People of conditions of vulnerability include people facing domestic violence (gender violence) and abuse, financial burden, loneliness, among others[11].

Previous research carried out to evaluate the emotional implications in times of pandemics showed a prevalence of mood disorders[12,13]. Such disorders can affect people's immune system efficiency and further increasing the so-called social determinants of risk. The prevalence of depressive symptoms ranged from 14.6% to 48.3% in times of pandemic[15], where women, young adults, students, and illiterate people presented greater symptoms. Other factors were also included in this analysis such as: living in urban areas, low self-perception of health, being divorced/widowed, being single, having precarious income, ability to protect oneself, the presence of chronic diseases, among others[16]. Thus, empirical evidence suggests the need to prioritize intervention strategies that both mitigate the risk of contagion with the Covid-19 virus but also create less mental health problems[14].

Concerning anxiety symptoms, it is sometimes a comorbidity with a depressive condition, possibly explained by the risk factors described above. In addition, exposure to social networks or news and information about COVID-19 was positively associated with anxiety[17]. Regarding marital status, married participants had higher levels of anxiety compared with single participants. A long prolonged quarantine, contact with COVID-positive patients or objects was also correlated with higher risks of anxiety symptoms[18]. This tends to suggest that the pandemic has a pernicious effect on people's emotional well-being, however, not all countries have been affected in the same way.

Materials and methods

This is a descriptive cross-sectional study. The population studied has an urban background. The study calculated a confidence interval with a 95% confidence level and an estimated error of 5%. The study applied this formula to the total population who were 18 and 65 years old residing in the city obtaining a total of 384 people. The inclusion criteria of participants included participants' acceptance to partake in the study, being between 18 and 65 years old and residing in the research context.

Instruments:
The study used the WHOQOL-BREF test to evaluate participant's quality of life using a cross-cultural approach. It contained a total of 26 questions, twenty-four assess all the facets contained in the instrument and two generals regarding quality of life and general health. The questions are examined independently. Each questions have 5 Likert-type ordinal response options and produce 4 profile dimensions: physical health, psychological health, social relationships, and environment. This questionnaire is applicable both to the general population and to associated health conditions (diseases or other health problems, wounds, injuries, mental or emotional problems, alcohol problems and drug problems) although the test was created to be self-administered, it can also be administered by an interviewer. The reference time for completing the test is 2 weeks[22].

Also, the studied applied the DASS 21 instrument which contains 21 items distributed in three scales: depression, anxiety, and stress; It has seven items with four response alternatives from 0 to 3 that represent the frequency which the examinee perceives the symptoms during the last week. It is made up of three Likert-type, 4-point, self-response subscales. Each subscale has 7 items, intended to assess the emotional states of depression, anxiety, and stress. There are four possibilities of response of severity or frequency on mental health disorders organized on a scale from 0 to 3 points. The results obtained with the test corresponds to the sum of the responses to the items that structure each of the three subscales. The total score is calculated with the sum of the scale items and varies between 0 and 21 points. In this way, the depression subscale assesses symptoms, such as inertia, lack of life pleasure, disturbance caused by anxiety, lack of interest/involvement, lack of appreciation for himself; devaluation of life and discouragement. The anxiety subscale assesses arousal of the autonomic nervous system, musculoskeletal effects, situational anxiety, and subjective experiences of anxiety. The stress subscale assesses difficulty for relaxing, nervous excitement, easy disturbance/agitation, irritability/overreaction and impatience.

Procedure:
With the participant authorization, the researcher explained to him/her the purpose and the assessment protocol of the study. Then, surveys were applied according to survey/instrument schedule. The evaluation of the variables quality of life and mental health was carried out by a team of psychologists.

Ethical considerations:
The bioethical committee of the Mariana University reviewed and approved the studied, according to the Helsinki declaration to the World Medical Association. It also followed Resolution 8430 of 1993 of the Colombian Ministry of Health which states guidelines for conducting clinical research.

Statistical analysis:
The descriptive statistics of the WHOQOL-BREF and DASS 21 instruments obtained from the sample were determined separately. Then, the study used the Kolmogorov Smirnov test to test the normality of quantitative variables, with the aim of identifying whether they come from a population with normal distribution. These tests allowed determining the use of non-

parametric measures such as Spearman's coefficient for establishing correlation levels.

Results

Table 1 presents demographic characteristics of the sample evaluated. Regarding education, a significant number of participants' have obtained university education men and women report having similar education levels. Concerning marital status, the single category prevails among participants. Concerning family category, the nuclear group category is the most prevalent Regarding home ownership, most participants mentioned they owned the property. Finally, non-contagion with COVID and having a vaccination are prevalent characteristics of participants. Additionally, the frequency of vaccination is low for both genres.

Table 1. Sociodemographic characteristics

Variables	Male	Female
Education		
Elementary school	9.0%	9.5%
High School	30.3%	26.7%
University (Undergraduate)	57.9%	61.9%
Marital Status		
Single	69.0	58.6%
Married	15.9%	24.3%
Consensual union	12.4%	11.9%
Divorced	2.8%	4.3%
Family type		
Nuclear	71.7%	71.9%
Extensive	14.5%	14.8%
Reconstructed	4.8%	2.9%
Single parent	9.0%	10.5%
Home ownership		
Owned – belongs to the participants	44.8%	50.0%
Family owned	26.2%	20.5%
Leased	26.9%	29.5%
Tenant houses/homes	2.1%	-
Health insurance		
Si	97.9%	98.6%
Having Covid-19 in the last 4 meses		
Si	29.0%	27.1%
No	71.0%	72.9%
Vaccinated		
Si	47.6%	57.6%
No	51.7%	42.4%

Participants perceive as good or being in a good state different variables of the WHOQOL scale for assessing quality of life. The variables that participants deem to be good are physical and psychological health, social relations, and living environment.

Table 2. WHOQOL Puntation scales

Scale	Male	Female	Overall
WHOQOL-Test Physical Health			
Average	62.4	62.2	
St-deviation	13.0	13.6	
WHOQOL-Bref Psychological health			
Average	62.1	62.2	
St-deviation	16.2	16.4	62.1 (16.3)
WHOQOL-Bref Social relationships			
Average	55.0	54.5	
St-deviation	18.6	17.8	54.7 (18.1)
WHOQOL-Bref Living environment			
Average	57.1	57.9	
St-deviation	14.2	13.6	57.6 (13.8)

Table No. 3 shows a higher prevalence of anxious, depressive and stress symptoms in the mild category across men and women.

Table 3. Anxiety and Stress classification according to DASS-21 test

Sub-variable	Male	Famale
Anxiety		
Mild	41.4%	44.8%
Moderate	24.1%	17.1%
Severe	4.8%	11.0%
Extreme	20.7%	22.4%
Depression		
Mild	53.1%	53.8%
Moderate	25.5%	23.8%
Severe	7.6%	6.7%
Extreme	6.9%	8.1%
Stress		
Mild	70.3%	73.3%
Moderate	15.9%	12.9%
Severe	4.1%	4.8%
Extreme	1.4%	3.8%

Table 4 shows moderate and high and inversely proportional correlations (between -0.72 and -0.95) between the quality-of-life dimensions with the DASS scores on Anxiety, depression and stress variables.

Table 4. Correlation between WHOQOL-Bref and DASS- 21

Variable	Dass-21 Anxiety	Dass-21 Depression	Dass-21 Stress
WHOQOL-Bref Physical health	-0,89	-0,90	-0,90
WHOQOL-Bref Psychological health	-0,92	-0,94	-0,95
WHOQOL-Bref Social relationships	-0,72	-0,74	-0,74
WHOQOL-Bref Living environment	-0,84	-0,84	-0,85

Discussion

The study had the objective of analysing the quality of life and mental health in a population group from an urban context of Colombia during an endemic. The application of the DASS-21 scale to participants shows there is some level of depressive, anxious and mild stressful symptoms. One explanation for this could be that some people activate adaptation mechanisms to cope with situations of maximum adversity. This type of behaviour resembles to that when people face events of maximum adversity and unknown, generating a rebound effect of resilience to offset the impact[24].

Likewise, some individuals implement actions aimed at suppressing or reducing emotional discomfort during social isolation. These people actively face problems by prompting direct actions to solve or reduce the negative impact of a pandemic or endemic[25]. Therefore, the role of resilience as a protective factor, in the face of the impact of this type of event, would promote psychological well-being and reduce the presence of emotional symptoms[24]. Although the study did not evaluate the so-called protective factors, they could explain the results evidenced in the population studied, reducing the probability of risk behaviors. This means a reduced effect size concerning affective discomfort[26].

There are different variables including demographic characteristics (age, marital status, education, occupation, gender, among others) which are associated with lower levels of anxiety, stress and depression[27]. In this regard, in a study carried out in Cuba during the COVID pandemic, the population evaluated showed positive indicators compared to the rest of the countries, regarding mental health. In such study people showed a better adaptation to the endemic and, therefore, experiencing less aversive psychological impact[28].

In developing countries, the culture, lifestyles, and traditions have contributed to the prevalence of infections[29]. However, these particularities may have determined a pattern of insensitivity to mental and behavioral disorders, underestimating psychological traumatic effects in this type of population[30]. Also, the most optimistic people, with a greater age range and better educational level have better mental well-being. These latter individuals could had developed more abilities to overcome adversity.

This study shows certain people have implemented some strategies such as a positive attitude and self-efficacy to face traumatic situations during the pandemic particularly during confinement measures[28]. This would be in line to what other authors have have encountered in other contexts regarding how people dealt with the pandemic and isolation. Other authors have also manifested that some psychological variables together with individual characteristics like sociodemographic state, predict fewer psychological symptoms[31]. Thus, the latter elements would form a "mental immune system" as a defence mechanism against adverse situations. This is built within each person and in interaction with the environment it changes constantly to better approach reality for better dealing with extreme situations[32].

Similarly, the research findings do not show a significant negative impact on quality of life of research participants during the endemic. This might be explained by the adaptation people have achieve regarding the different waves of contagion, thus reducing the anticipated negative effects on quality of life over time[33]. Given the issue just discussed, it is understandable that the general health of the evaluated population has not been compromised in times of endemics, since authorities have gradually allowed people to resume daily routines helping to improve physical and mental health[34]. Likewise, previous research reported minimal effects on participants' quality of life in comparison with others, highlighting little impact on the mental component[35,36]. These results could be attributed to a view from people and authorities that COVID-19 is an issue that creates threats onto people's physical health, ignoring its effects on mental health[37]. Additionally, individual differences, and inconsistency in determining the role of sociodemographic factors could explain the disparity in the effect of this variable on individuals' quality of life[34]. Furthermore, it could be suggested that people became increasingly resistant to the pandemic and government restrictions over time[38].

Other factors that contributed on the improvement people's quality of life during endemics is attributed to the particular context, especially in small cities and neighborhoods with low population density. Small cities allowed the use of certain systems of transportation over others, helping them to be more transit-oriented, engaging in walking or biking helping them to undertake physical activity that can help to ameliorate mental health problems[39]. Similarly, certain places were particularly important during the pandemic, like open spaces, parks, gardens and pedestrian areas as they allowed social interaction with lower infection risks[40]. These places provided opportunities for social interaction and establishing new social bonds.

Similarly, the study shows correlation between people's perceived quality of life and affectation from the COVID-19 pandemic. There is a positive relationship between these factors indicating that people's quality of life is perceived as better when the pandemic produced marginal effects on their daily routines[41].

It should also be noted that older people reached higher scores; this finding may indicate that occupations give meaning to life and contribute to improving the perception of quality of life and mental health, regardless of environmental conditions[42]. A study carried out in Colombia reported that students and people with higher education presented higher levels of health-related quality of life. Concerning occupation domains, it was observed that students presented better scores in physical and mental health. In contrast, the people dedicated to household chores presented the lowest scores in all domains of the questionnaire. This difference could suggest that for the younger population, metal health is associated with good family support and support networks[43].

Test scores by areas indicate that physical and psychological health are the aspects affect quality of life the most. Women report a lower perception of quality of life during the endemic, mainly associated with lower performance in daily activities and the struggling with emotional and interpersonal problems. Regarding global symptomatology of depression and somatization, they affect different areas of quality of life with different magnitudes according to the participants' gender[44].

Finally, the study determined moderate to high (between -0.72 and -0.95) inversely proportional correlations between quality of life dimensions with the DASS 21 scores in variables such as anxiety, depression and stress. This means that greater quality of life perception helps to report lower levels of emotional symptoms. However, the relationship is not highly significant, that is, these variables taken from a mental health perspective are not the only factors at stake to perceive quality of life at a higher or lower level[45].

The main strengths of this work entails its capacity to evaluate the quality of life and mental health for people living though an endemic in addition to the use of validated instruments for evaluating these variables. However, the research presents a series of limitations such as the study's cross-sectional design and population sampling. Despite these limitations, the research findings provide important data regarding quality of life and metal health during endemics.

Conclusion

The evaluated population presents an average level quality of life perception which is good in all its categories and has prevalence of mild emotional symptoms. This is possibly explained by the activation of adaptation mechanisms to cope with situations of maximum adversity. Such mechanisms suppress or reduce emotional discomfort, actively coping with problems, reducing the anticipated effect on their general well-being.

Concerning quality of life dimensions, the results show a better perception both for men and women in terms of the physical and psychological dimension. However, the lowest scores were related to the social and environmental dimension, which could be associated to the context where individuals experienced the pandemic.

All of this means that the existing relationship between quality of life and anxiety, depression and stress is not significant enough. Additionally, there are other variables that should be considered and affect the dynamics of mental health and quality of life during endemics.

References

1. Ramírez-Ortiz J, Castro-Quintero D, Lerma-Córdoba C, Yela-Ceballos F, Escobar-Córdoba F. Mental health consequences of the COVID-19 pandemic associated with social isolation. Colomb J Anesthesiol [Internet]. 2020;48(4). Disponible en: http://dx.doi.org/10.5554/22562087.e930

2. Bazán, C., Florencia, B., Giacomazzo, D., Gutiérrez, M. A., Maffeo, F. Adolescentes, COVID-19 y aislamiento social, preventivo y obligatorio [Internet]. Grupofusa.org. [citado el 12 de julio de 2022]. Disponible en: http://grupofusa.org/wp-content/uploads/2020/05/Adolescentes-COVID-19-y-aislamiento-social.pdf

3. Nguyen HC, Nguyen MH, Do BN, Tran CQ, Nguyen TTP, Pham KM, et al. People with suspected COVID-19 symptoms were more likely depressed and had lower health-related quality of life: The potential benefit of health literacy. J Clin Med [Internet]. 2020 [citado el 12 de julio de 2022];9(4):965. Disponible en: https://www.mdpi.com/2077-0383/9/4/965/htm

4. Mattioli AV, Sciomer S, Cocchi C, Maffei S, Gallina S. Quarantine during COVID-19 outbreak: Changes in diet and physical activity increase the risk of cardiovascular disease. Nutr Metab Cardiovasc Dis [Internet]. 2020;30(9):1409–17. Disponible en: https://www.sciencedirect.com/science/article/pii/S0939475320302131

5. Yezli S, Khan A. COVID-19 social distancing in the Kingdom of Saudi Arabia: Bold measures in the face of political, economic, social and religious challenges. Travel Med Infect Dis [Internet]. 2020;37(101692):101692. Disponible en: https://www.sciencedirect.com/science/article/pii/S1477893920301605

6. Hawryluck L, Gold WL, Robinson S, Pogorski S, Galea S, Styra R. SARS control and psychological effects of quarantine, Toronto, Canada. Emerg Infect Dis [Internet]. 2004 [citado el 12 de julio de 2022];10(7):1206–12. Disponible en: http://dx.doi.org/10.3201/eid1007.030703

7. Lee SA, Jobe MC, Mathis AA, Gibbons JA. Incremental validity of coronaphobia: Coronavirus anxiety explains depression, generalized anxiety, and death anxiety. J Anxiety Disord [Internet]. 2020;74(102268):102268. Disponible en: https://www.sciencedirect.com/science/article/pii/S0887618520300827

8. Qiu J, Shen B, Zhao M, Wang Z, Xie B, Xu Y. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. Gen Psychiatr [Internet]. 2020 [citado el 12 de julio de 2022];33(2):e100213. Disponible en: http://dx.doi.org/10.1136/gpsych-2020-100213

9. Yezli S, Khan A. COVID-19 social distancing in the Kingdom of Saudi Arabia: Bold measures in the face of political, economic, social and religious challenges. Travel Med Infect Dis [Internet]. 2020;37(101692):101692. Disponible en: https://www.sciencedirect.com/science/article/pii/S1477893920301605

10. Lee SA, Jobe MC, Mathis AA, Gibbons JA. Incremental validity of coronaphobia: Coronavirus anxiety explains depression, generalized anxiety, and death anxiety. J Anxiety Disord [Internet]. 2020;74(102268):102268. Disponible en: https://www.sciencedirect.com/science/article/pii/S0887618520300827

11. Rubin GJ, Wessely S. The psychological effects of quarantining a city. BMJ [Internet]. 2020 [citado el 12 de julio de 2022];368:m313. Disponible en: https://www.bmj.com/content/368/bmj.m313.short

12. Zhang Y, Ma ZF. Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning Province, China: A cross-sectional study. Int J Environ Res Public Health [Internet]. 2020 [citado el 12 de julio de 2022];17(7):2381. Disponible en: https://www.mdpi.com/679016

13. Mukhtar S. Psychological impact of COVID-19 on older adults. Curr Med Res Pr [Internet]. 2020;10(4):201–2. Disponible en: http://dx.doi.org/10.1016/j.cmrp.2020.07.016

14. Haleem A, Javaid M, Vaishya R. Effects of COVID-19 pandemic in daily life. Curr Med Res Pr [Internet]. 2020;10(2):78–9. Disponible en: http://dx.doi.org/10.1016/j.cmrp.2020.03.011

15. Ballena CL, Cabrejos L, Dávila Y, Gonzales CG, Mejía GE, Ramos V, et al. Impacto del confinamiento por COVID-19 en la calidad de vida y salud mental. Rev Cuerpo Med HNAAA [Internet]. 2021 [citado el 12 de julio de 2022];14(1):87–9. Disponible en: http://www.scielo.org.pe/scielo.php?pid=S2227-47312021000100015&script=sci_abstract&tlng=en

16. Rodriguez JH. Impact of COVID 19 on peoples mental health. Medicentro (Villa Cl) [Internet]. 2020 [citado el 12 de julio de 2022];24(3):578–

94. Disponible en: https://www.medigraphic.com/cgi-bin/new/resumenI.cgi?IDARTICULO=104341

17. Huarcaya-Victoria J, Elera-Fitzcarrald C, Crisol-Deza D, Villanueva-Zúñiga L, Pacherres A, Torres A, et al. Factors associated with mental health in Peruvian medical students during the COVID-19 pandemic: a multicentre quantitative study. Rev Colomb Psiquiatr (Engl) [Internet]. 2021; Disponible en: https://www.sciencedirect.com/science/article/pii/S0034745021001086

18. Mukhtar S. Psychological health during the coronavirus disease 2019 pandemic outbreak. Int J Soc Psychiatry [Internet]. 2020;66(5):512–6. Disponible en: http://dx.doi.org/10.1177/0020764020925835

19. Asmundson GJG, Taylor S. Coronaphobia: Fear and the 2019-nCoV outbreak. J Anxiety Disord [Internet]. 2020 [citado el 12 de julio de 2022];70(102196):102196. Disponible en: http://dx.doi.org/10.1016/j.janxdis.2020.102196

20. Asmundson GJG, Taylor S. Coronaphobia: Fear and the 2019-nCoV outbreak. J Anxiety Disord [Internet]. 2020 [citado el 12 de julio de 2022];70(102196):102196. Disponible en: http://dx.doi.org/10.1016/j.janxdis.2020.102196

21. Qiu J, Shen B, Zhao M, Wang Z, Xie B, Xu Y. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. Gen Psychiatr [Internet]. 2020 [citado el 12 de julio de 2022];33(2):e100213. Disponible en: http://dx.doi.org/10.1136/gpsych-2020-100213

22. Who.int. WHOQOL-100 y WHOQOL-BREF. WHOQOL group, programa de salud mental, calidad de vida [citado el 12 de julio de 2022]. Disponible en: https://www.who.int/healthinfo/survey/whoqol-qualityoflife/en/index6.html

23. Sotelo LL, Sotelo LN, Dominguez SL, Padilla OT. Análisis psicométrico preliminar de la escala de ansiedad manifiesta (amas-a) en adultos limeños. Rev Psicol (Trujillo) [Internet]. 2012 [citado el 12 de julio de 2022];14(1):31–46. Disponible en: http://revistas.ucv.edu.pe/index.php/revpsi/article/view/440

24. Acosta LD. Response capacity to the COVID-19 pandemic in Latin America and the Caribbean. Rev Panam Salud Publica [Internet]. 2020 [citado el 12 de julio de 2022];44:e109. Disponible en: http://dx.doi.org/10.26633/RPSP.2020.109

25. Morán Astorga MC, Finez-Silva MJ, Menezes dos Anjos E, Pérez-Lancho MC, Urchaga-Litago JD, Vallejo-Pérez G. Estrategias de afrontamiento que predicen mayor resiliencia. Int J Dev Educ Psychol Rev INFAD psicol [Internet]. 2019 [citado el 12 de julio de 2022];4(1):183. Disponible en: https://revista.infad.eu/index.php/IJODAEP/article/view/1542

26. Xiang, Y-T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., y Ng, C. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. The Lancet, 7(3), 228-229. Thelancet.com. [citado el 12 de julio de 2022]. Disponible en: https://www.thelancet.com/action/showPdf?pii=S2215-0366%2820%2930046-8

27. Hossain MA, Jahid MIK, Hossain KMA, Walton LM, Uddin Z, Haque MO, et al. Knowledge, attitudes, and fear of COVID-19 during the Rapid Rise Period in Bangladesh. PLoS One [Internet]. 2020;15(9):e0239646. Disponible en: http://dx.doi.org/10.1371/journal.pone.0239646

28. Palomera-Chávez A, Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara, Jalisco, México, Herrero M, Carrasco Tapias NE, Juárez-Rodríguez P, Barrales Díaz CR, et al. Impacto psicológico de la pandemia COVID-19 en cinco países de Latinoamérica. Rev Latinoam Psicol [Internet]. 2021 [citado el 12 de julio de 2022];53:83–93. Disponible en: https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1361042

29. Victor GS, Ahmed S. The importance of culture in managing mental health response to pandemics. En: Psychiatry of Pandemics. Cham: Springer International Publishing; 2019. p. 55–64.

30. Tucci V, Moukaddam N, Meadows J, Shah S, Galwankar SC, Kapur GB. The forgotten plague: Psychiatric manifestations of Ebola, Zika, and emerging infectious diseases. J Glob Infect Dis [Internet]. 2017 [citado el 12 de julio de 2022];9(4):151–6. Disponible en: http://dx.doi.org/10.4103/jgid.jgid_66_17

31. Płomecka MB, Gobbi S, Neckels R, Radzi-ski P, Skórko B, Lazzeri S, et al. Mental Health Impact of COVID-19: A global study of risk and resilience factors [Internet]. bioRxiv. 2020. Disponible en: https://www.medrxiv.org/content/10.1101/2020.05.05.20092023v1.full.pdf

32. Villarroel PV. Psicología y covid-19: un análisis desde los procesos psicológicos básicos. Cuad neuropsicol [Internet]. 2020 [citado el 12 de julio de 2022];14(1):10–8. Disponible en: https://dialnet.unirioja.es/servlet/articulo?codigo=7365555

33. Hussong J, Möhler E, Kühn A, Wenning M, Gehrke T, Burckhart H, et al. Mental health and health-related quality of life in German adolescents after the third wave of the COVID-19 pandemic. Children (Basel) [Internet]. 2022 [citado el 12 de julio de 2022];9(6):780. Disponible en: https://www.mdpi.com/1647996

34. Guzmán Muñoz E, Concha Cisternas Y, Lira Cea C, Vásquez Yáñez J, Castillo Retamal M. Impacto de un contexto de pandemia sobre la calidad de vida de adultos jóvenes. Rev cuba med mil [Internet]. 2021 [citado el 12 de julio de 2022];50(2). Disponible en: http://scielo.sld.cu/scielo.php?pid=S0138-65572021000200006&script=sci_arttext&tlng=pt

35. Rabacal J, Oducado RM, Tamdang K. COVID-19 impact on the quality of life of teachers: A cross-sectional study [Internet]. 2020 [citado el 12 de julio de 2022]. Disponible en: https://papers.ssrn.com/abstract=3743832

36. Al Dhaheri AS, Bataineh MF, Mohamad MN, Ajab A, Al Marzouqi A, Jarrar AH, et al. Impact of COVID-19 on mental health and quality of life: Is there any effect? A cross-sectional study of the MENA region. PLoS One [Internet]. 2021;16(3):e0249107. Disponible en: http://dx.doi.org/10.1371/journal.pone.0249107

37. Jorm AF. Mental health literacy: empowering the community to take action for better mental health. Am Psychol [Internet]. 2012;67(3):231–43. Disponible en: http://dx.doi.org/10.1037/a0025957

38. Brinkhof LP, Huth KBS, Murre JMJ, de Wit S, Krugers HJ, Ridderinkhof KR. The interplay between quality of life and resilience factors in later life: A network analysis. Front Psychol [Internet]. 2021 [citado el 12 de julio de 2022];12:752564. Disponible en: http://dx.doi.org/10.3389/fpsyg.2021.752564

39. Zheng R, Xu Y, Wang W, Ning G, Bi Y. Spatial transmission of COVID-19 via public and private transportation in China. Travel Med Infect Dis [Internet]. 2020 [citado el 12 de julio de 2022];34(101626):101626. Disponible en: http://dx.doi.org/10.1016/j.tmaid.2020.101626

40. Mouratidis K, Papagiannakis A. COVID-19, internet, and mobility: The rise of telework, telehealth, e-learning, and e-shopping. Sustain Cities Soc [Internet]. 2021;74(103182):103182. Disponible en: https://www.sciencedirect.com/science/article/pii/S2210670721004637

41. Alemán RC. Cuestionario de calidad de vida WHOQOL-BREF en tiempos de pandemia por el COVID-19. Investigación y Desarrollo [Internet]. 2021 [citado el 12 de julio de 2022];4(6):109–16. Disponible en: http://dicyt.uajms.edu.bo/revistas/index.php/investigacion-y-desarrollo/article/view/1033

42. Bravo DS, Orozco NC, Kinderman RC, Suárez LD. Relación de la percepción de la calidad de vida y el significado que tiene las ocupaciones en habitantes de la comunidad la Inmaculada de Galapa – Colombia. Tog [Internet]. 2017 [citado el 12 de julio de 2022];(26):12. Disponible en: https://dialnet.unirioja.es/servlet/articulo?codigo=6273866

43. Cáceres-Manrique FDM, Parra-Prada LM, Pico-Espinosa OJ. Calidad de vida relacionada con la salud en población general de Bucaramanga, Colombia. Rev Salud Pública (Bogota) [Internet]. 2018 [citado el 12 de julio de 2022];20(2):147–54. Disponible en: https://pesquisa.bvsalud.org/portal/resource/pt/biblio-978963

44. Ruiz Martinez AO, González-Arratia López Fuentes NI, Gonzáles-Escobar S, Aguilar Montes de Oca YP, Torres-Muñoz MA. Relationship between psychopathological symptoms and quality of life in women and men. 2018 [citado el 12 de julio de 2022]; Disponible en: https://alicia.concytec.gob.pe/vufind/Record/REVUSMP_89856eb96c57b1aacfbde1249755c880/Description

45. Villanueva Kuong LE, Universidad Femenina del Sagrado Corazón, Ugarte Concha AR, Universidad Femenina del Sagrado Corazón. Niveles de ansiedad y la calidad de vida en estudiantes de una Universidad Privada de Arequipa. avpsicol [Internet]. 2017 [citado el 12 de julio de 2022];25(2):153–69. Disponible en: https://revistas.unife.edu.pe/index.php/avancesenpsicologia/article/view/351