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#### **ORGINAL**





# Level of Fear due to the COVID-19 Pandemic in Residents of the Los Olivos District of North Lima

# Nivel de Miedo por la Pandemia de COVID-19 en Residentes del Distrito de Los Olivos de Lima Norte

Brian Meneses-Claudio¹ □ ⋈, Ann Chaname-Marin² □ ⋈, Juan Saberbein-Muñoz³ □ ⋈, Maria Salinas-Cruz⁴ □ ⋈, Teresa Quesada-Aramburu³ □ ⋈

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### **ABSTRACT**

**Introduction:** fear is one of the events that compromises the mental health of the person during the COVID-19 pandemic, therefore, the research objective is to determine the level of fear due to the COVID-19 pandemic in residents of the district of Los Olivos de Lima Norte.

**Methods:** it is a quantitative and cross-sectional study, with a total population of 118 participants who answered a questionnaire on sociodemographic aspects and the scale of fear of COVID-19.

**Results:** in their results we can observe that 38,1 % (45 participants) have high levels of fear, 45,8 % (54 participants) medium level and 16,1 % (19 participants) low levels of fear.

**Conclusions:** in conclusion, necessary actions must be taken to take care of mental health from a comprehensive care in the population.

Keywords: Fear; Pandemic; Coronavirus; Mental Health.

# **RESUMEN**

**Introducción:** el miedo es uno de los eventos que compromete la salud mental de la persona durante la pandemia de COVID-19, por lo tanto, el objetivo de la investigación es determinar el nivel de miedo debido a la pandemia de COVID-19 en pobladores del distrito de Los Olivos de Lima Norte.

**Métodos:** es un estudio cuantitativo y transversal, con una población total de 118 participantes que respondieron un cuestionario sobre aspectos sociodemográficos y la escala de miedo al COVID-19.

**Resultados:** en sus resultados podemos observar que el 38,1 % (45 participantes) tienen niveles altos de miedo, el 45,8 % (54 participantes) nivel medio y el 16,1 % (19 participantes) niveles bajos de miedo.

**Conclusiones:** en conclusión, se deben realizar las acciones necesarias para cuidar la salud mental desde una atención integral en la población.

Palabras clave: Miedo; Pandemia; Coronavirus; Salud Mental.

<sup>&</sup>lt;sup>1</sup>Universidad Científica del Sur, SISELEC. Lima, Perú.

<sup>&</sup>lt;sup>2</sup>Universidad Científica del Sur, Responsable de promoción de la Dirección General de Investigación Desarrollo e Innovación (DGIDI). Lima, Perú.

<sup>&</sup>lt;sup>3</sup>Universidad Nacional de Educación Enrique Guzmán y Valle, Facultad de Tecnología. Lima, Perú.

<sup>&</sup>lt;sup>4</sup>Universidad Nacional de Educación Enrique Guzmán y Valle, Facultad de Pedagogía y Cultura Física. Lima, Perú.

### INTRODUCTION

The new coronavirus (COVID-19) has spread very quickly throughout China and other countries, causing a diverse clinical picture in infected people, the most worrying being the severe acute infectious pneumonia that can lead to death. (1)

At the end of November of this year, there have been 2,234,075 confirmed cases of COVID-19 infection in Peru. The registry also indicates that there are 201,108 confirmed deaths to date, of which the largest number is concentrated in Lima, as 81,643 cases. This scenario is worrying and worries not only the health authorities, but any citizen who fears becoming infected. (2)

During the COVID-19 pandemic, people subjectively feel fear, and may present corresponding adaptive or avoidance behaviors, such as an excessive focus on relevant information and excessive hoarding, which can ultimately aggravate their psychological burden such as depression, anxiety, post-traumatic stress disorder and suicide and thus reduce their quality of life and well-being.<sup>(3,4)</sup>

Therefore, the population, as well as most frontline health workers, are vulnerable to emotional impact, due to both the pandemic and the strict rules that limit the full social activity of people around the world. (5,6) Psychological support should be timely in people with serious mental health problems. In most patients and healthcare workers, emotional and behavioral responses are part of an adaptive response to extraordinary stress. (7,8)

Fear is a common psychological reaction in pandemics. Several existing studies showed that when there is an elevated risk of infection, people may develop widespread fears about their health and that of their family members. (9,10) Fear of COVID-19 is a negative emotional reaction or persistent worry about an impending public health event. (11,12)

In a study carried out in Portugal, with 1122 inhabitants, they stated in their results that the levels of fear were high since they were related to anxiety and depression due to the perception that the inhabitants have before COVID-19 and that factors that emotional fear and fear of going to some service facilities during the pandemic, It generated fear in people. Concluding that the inhabitants feel vulnerable to a disease that compromises their health, raises the rates of fear and fear of infecting themselves and their family. (13)

In a study conducted in India, with 1499 inhabitants, they stated in their results that 58,6% of male inhabitants had low rates of fear and 41,4% high; As for the female sex, they had low levels with 51,7% and 41,4% elevated levels of fear. Concluding that being female, not having adequate education and being a health worker, conditioned the person to increase their fear rates due to COVID-19. $^{(14)}$ 

In a study conducted in Australia, with 587 participants, they stated in their results that 68,1 % of their participants had low levels of fear and 31,9 % elevated levels. Concluding that work condition, excessive alcohol consumption, being a woman and presenting a mental health problem, indicated higher levels of fear. (15)

Therefore, the objective of the study is to determine the level of fear due to the COVID-19 pandemic in residents of the olive tree district of North Lima.

The level of fear that is being experienced in the same residents of the district of Los Olivos is related to the COVID-19 pandemic individually and collectively, since this issue lies in understanding how this virus spreads and what measures must be taken to mitigate it and thus not generate a great impact on mental health, quality of life and behavior of residents.

# **METHODS**

# Research type and Design

In the study, according to its properties is quantitative, with respect to its methodology is descriptive-transversal non-experimental. (16)

## **Population**

The population is made up of a total of 118 inhabitants residing in the district of Los Olivos.

According to the study, the survey was conducted with a voluntary response sampling bias of the residents of the district since the type of sampling in the research was for convenience.

## Inclusion Criteria

People over 18 years old

People who voluntarily agree to participate in the study.

People who signed the inform consent CIE IPSF 018-2023. It was previously accepted by the institution.

# Technique and Instrument

A virtual survey was conducted in the Google form, in which the data instrument Fear of COVID - 19 Scale (FCV - 19S) was written.

The FCV - 19S comprises 7 items in which it presents 2 dimensions (emotional reactions to fear and somatic

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reactions to fear), in which it is valued with a Likert-type scale with 5 response options: "1 = Strongly disagree", "2 = disagree", "3 = neither agree nor disagree", "4 = agree" and "5 = strongly agree", Obtaining a total score by adding all the items, so your score would cover "0 to 11 points" is low, "12 to 23 points" is medium and "24 to 35 points" is high. (17)

The validity of the instrument to measure fear of COVID-19 was determined based on the exploratory factor analysis technique. The Kaiser-Mayer-Olkin sample adequacy measure obtained a coefficient of 0.864 (KMO > 0.6), while Bartlett's sphericity test obtained significant results ( $X^2$  approx. = 3928.250; gl = 18; p = 0.000).

The reliability of the instrument was determined according to Cronbach's alpha statistical test, for the total of the items (i = 7) resulting in a coefficient of 0,950 ( $\alpha > 0.6$ ). (18)

# Place and Application of the Instrument

It was conducted prior coordination with the heads of each household, to make home visits, in which they were provided with information about the study, and thus have the necessary knowledge of the research. And that finally there will be a constant follow-up for the completion of the survey between the months of October and November of the year 2022.

## **RESULTS**

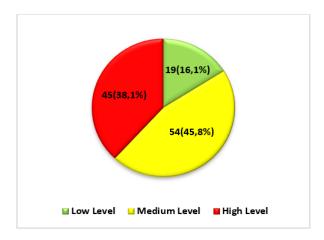
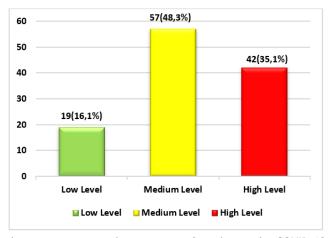


Figure 1. Level of fear due to the COVID-19 pandemic in residents of the olive district of North Lima

In figure 1, we can see that 16,1 % of the participants had low levels of fear, 45,8 % medium level and 38,1 % elevated levels of fear.



**Figure 2.** Level of fear in its dimension emotional reactions to fear due to the COVID-19 pandemic in residents of the olive district of North Lima

In figure 2, with respect to the dimension emotional reactions to fear, 16,1 % of participants have a low level of fear, 48,3 % medium level and 35,1 % elevated levels of fear.

In figure 3, we can see with respect to the dimension react somaticize to fear that, 18.6% have low levels of fear, 44.9% medium level and 36.4% elevated levels of fear.

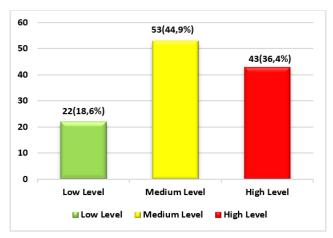


Figure 3. Level of fear in its dimension somatic reactions to fear due to the COVID-19 pandemic in residents of the olive district of North Lima

# DISCUSSION

The fear of COVID-19 occurs initially, if it is persistent and cannot be controlled, more complex conditions such as depression, anxiety and stress may occur.

As for the fear of COVID-19 in the participants, the medium level predominates, this is because the population becomes more susceptible, because being affected by anxiety, depression and anguish resulting from the COVID-19 pandemic, causes constant damage to mental health and that, the relationship between fear and anxiety and stress can occur higher levels to depression problems in the population.

With respect to its dimensions, we observe that the inhabitants have an average level of fear of COVID-19, this is because the massive information that is seen by the media, misinforms the population and increases the levels of fear in them, likewise triggers certain emotional responses where every person product of the negative experience generated by COVID-19,(19) conditions or violates the person to present some mental disorder either in the short or long term, but that, this negative experience is more evident in socially and economically disadvantaged inhabitants, since they have to work day to day, exposing themselves to catch the disease and likewise grows the fear that if it is infected. It will be able to infect your whole family.

More fear in people living in more disadvantaged areas may also be due to the lack of health facilities and professionals who can educate them or provide adequate information about the pandemic. Specifically, people living in disadvantaged areas are more vulnerable to the disease and its emotional, social, and economic impact, which can greatly exacerbate the degree of fear of COVID-19. (20)

This research work will be beneficial for future studies, since the study focused during the COVID-19 pandemic and how fear affects the mental health of the population, generated in the COVID-19 pandemic, compared to our study history of the same topic in different countries, has given an exhaustive comparison in which, Given the situation of vulnerability that the inhabitants have during the pandemic in our country, it has given us the necessary information about how vulnerable the inhabitants of that district are, in serious situations that compromise their mental health.

# **CONCLUSIONS**

It is concluded that necessary actions must be taken to take care of mental health from a comprehensive care in the population.

It is concluded that educational sessions should be held on proper management to maintain stable mental health, since this will allow not to present fear indices in the population.

The limitation in our study is the availability that the residents of the district had, given that as was done during the pandemic, many of them did not agree that we can carry out the survey within their home for fear that a new person enters their home who may or may not have the virus, and because of this, the collection of information could not take place on certain designated days.

## **BIBLIOGRAPHIC REFERENCES**

- 1. Bao Y, Sun Y, Meng S, Shi J, Lu L. 2019-nCoV epidemic: address mental health care to empower society. Lancet. 2020;395(1):19-21. Disponible en: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7133594/pdf/ main.pdf.
  - 2. Ministry of Health. Sala Situacional COVID-19 Perú [Internet]. MINSA; 2021. Disponible en: https://

covid19.minsa.gob.pe/sala\_situacional.asp.

- 3. Ford B, et al. Reduced immunity to Measles in adults with major depressive disorder. Physiol. Behav. 2019;49(2):243-249. doi: 10.1017/S0033291718000661.
- 4. Pappas B, Kiriaze J, Giannakis P, Falagas M. Psychosocial consequences of infectious diseases. J. Compilation. 2020;15(8):2-9. Disponible en: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7129378/pdf/ main.pdf.
- 5. Zhai And, Du X. Loss and grief amidst COVID-19: A path to adaptation and resilience. Brain Behav. Immun. 2020;87(1):80-81. Disponible en: https://ncbi.nlm.nih.gov/pmc/articles/PMC7177068/pdf/main.pdf.
- 6. Thakur V, Jain A. COVID 2019-suicides: Aglobal psychological pandemic. Brain Behav Immun. 2020;88(1):952-953. Disponible en: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7177120/pdf/main.pdf.
- 7. Santa H, Chavez G, Dominguez J, Araujo E, Aguilar H, Vera V. Fear of COVID-19 infection, as a mediator between exposure to news and mental health, in the Peruvian population. Enferm. Glob. 2022;21(1):271-282. doi: 10.6018/EGLOBAL.489671.
- 8. Demirbas N, Kutlu R. Effects of COVID-19 Fear on Society's Quality of Life. Int. J. Ment. Health Addict. 2022;20(5):2813-2822. doi: 10.1007/s11469-021-00550-X.
- 9. Castillo B, Gonzales M. Fear of COVID-19 in residents of a Human Settlement in Puente Piedra, Lima. Rev. Científica Ágora. 2021;8(1):69-74. doi: 10.21679/arc.v8i1.209.
- 10. Quadros S, Garg S, Ranjan R, Vijayasarathi G, Mamun M. Fear of COVID 19 Infection Across Different Cohorts: A Scoping Review. Front. Psychiatry. 2021;12(1):708430. doi: 10.3389/fpsyt.2021.708430.
- 11. Bavel J, et al. Using social and behavioural science to support COVID-19 pandemic response. Nat. Hum. Behav. 2020;4(5):460-471. doi: 10.1038/s41562-020-0884-z.
- 12. Pérez A, Ricci L, Daniel 'Rossi, Cruz LM. Impacto de la telemedicina en el acceso a la atención de salud mental en zonas rurales aisladas. Community and Interculturality in Dialogue 2022;2:3-3. https://doi. org/10.56294/cid20233.
- 13. Magano J, Vidal D, Sousa H, Pepper M, Leite Â. Validation and Psychometric Fear of COVID-19 Scale (FCV-19S) and Associations with Travel, Tourism and Hospitality. Int. J. Environ. Res. Public Heal. 2021;18(427):1-12. Disponible en: https://bdigital.ufp.pt/bitstream/10284/9218/1/ijerph-18-00427-v2.pdf.
- 14. Doshi D, Karunakar P, Sukhabogi J, Prasanna J, Mahajan S. Assessing Coronavirus Fear in Indian Population Using the Fear of COVID-19 Scale. Int. J. Ment. Health Addict. 2021;19(6):2383-2391. doi: 10.1007/s11469-020-00332-x.
- 15. Rahman M, et al. Factors associated with psychological distress, fear and coping strategies during the COVID-19 pandemic in Australia. Global. Health. 2020;16(1):95. doi: 10.1186/s12992-020-00624-w.
- 16. Linares Cánovas LP, Linares Cánovas LB, Pereda Rodríguez Y. Evaluación del Síndrome Burnout y factores asociados en personal sanitario de Atención Primaria. Community and Interculturality in Dialogue 2023;3.
- 17. Ahorsu D, Lin C, Imani V, Saffari M, Griffiths M, Pakpour A. The Fear of COVID-19 Scale: Development and Initial Validation. Int. J. Ment. Health Addict. 2022;20(3):1537-1545. doi: 10.1007/s11469-020-00270-8.
- 18. Sotomayor-Beltran C, Perez-Siguas R, Matta-Solis H, Jimenez AP, Matta-Perez H. Anxiety And Fear of COVID-19 Among Shantytown Dwellers In The Megacity Of Lima. Open Public Health J. 2022;15(1):1-18. doi: 10.2174/18749445-V15-E221026-2022-69.
- 19. Sotomayor-Beltran C, Matta-Solis H, Perez-Siguas R, Matta-Solis E, Matta-Zamudio L. Fear of COVID-19 among Peruvian People Living in Disadvantaged Communities: A Cross-Sectional Study. Clin. Pract. Epidemiol. Ment. Heal. 2021;17(1):19-25. doi: 10.2174/1745017902117010019.

20. Jacome-Olacua N, Rodríguez-Paucar J, Marin-Garcia P, Meneses-Claudio B, Solis-Matta H, Solis EM. Social skills and resilience in adolescent of secondary level of a public educational institution in Puente Piedra Lima - 2020. Adv. Sci. Technol. Eng. Syst. 2020;5(5):1036-1041. doi: 10.25046/AJ0505127.

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#### CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

### **AUTHORSHIP CONTRIBUTION**

Conceptualization: Brian Meneses-Claudio, Ann Chaname-Marin, Juan Saberbein-Muñoz, Maria Salinas-Cruz, Teresa Quesada-Aramburu.

Data curation: Brian Meneses-Claudio, Ann Chaname-Marin, Juan Saberbein-Muñoz, Maria Salinas-Cruz, Teresa Quesada-Aramburu.

Formal analysis: Teresa Quesada-Aramburu.

Acquisition of funds: Juan Saberbein-Muñoz, Maria Salinas-Cruz.

Research: Juan Saberbein-Muñoz, Maria Salinas-Cruz.

*Methodology:* Brian Meneses-Claudio, Ann Chaname-Marin, Juan Saberbein-Muñoz, Maria Salinas-Cruz, Teresa Quesada-Aramburu.

Project management: Juan Saberbein-Muñoz, Maria Salinas-Cruz.

Resources: Brian Meneses-Claudio, Ann Chaname-Marin. Software: Brian Meneses-Claudio, Ann Chaname-Marin. Supervision: Brian Meneses-Claudio, Ann Chaname-Marin.

Validation: Brian Meneses-Claudio, Ann Chaname-Marin.

Display: Teresa Quesada-Aramburu.

Drafting - original draft: Teresa Quesada-Aramburu.

Writing - proofreading and editing: Brian Meneses-Claudio, Ann Chaname-Marin.