

PalArch's Journal of Archaeology of Egypt / Egyptology

ANXIETY AND DEPRESSION IN TIMES OF PANDEMIC BY COVID 19

*Vera Calmet Velia Graciela*¹, *Fernández Mantilla Mirtha Mercedes*², *Aguilar Armas Haydee Mercedes*³, *Vicuña Villacorta Jessica Ericka*⁴, *Flores Ledesma Katia Ninoska*⁵, *Javier Alva Leda*⁶, *Muñoz Hernandez Helmer*⁷

^{1,2,3,4} Degree in Psychology, Master in University Teaching, PhD in Psychology, Universidad César Vallejo -Trujillo,

⁵PhD in Education, master's in public management, Degree in Education, EESPP Emilia Barcia Boniffatti, International Research and Development Centre -CIID

⁶PhD in Psychology, Master in University Didactics, Degree in Psychology, Continental University,

⁷Systems Engineer, Master of Engineering, Doctor of Management, Postdoctor in Research, University of Sinú

Email: ¹Peru.vverac@ucv.edu.pe, ²mfernandez@ucv.edu, ³haguilarar@ucvvirtual.edu.pe, ⁵knfledesma@hotmail.com, ⁶ledajavialva@gmail.com, ⁷inghelmer@gmail.com

Web: ¹<https://orcid.org/0000-0003-0170-6067>, ²<http://orcid.org/0000-0002-8711-7660>, ³<https://orcid.org/0000-0001-9368-6184>, ⁴<https://orcid.org/0000-0002-8121-3790>, ⁵<https://orcid.org/0000-0002-9088-5820>, ⁶<https://orcid.org/0000-0002-9793-1033>, ⁷<https://orcid.org/0000-0002-2445-6585>,

Vera Calmet Velia Graciela, Fernández Mantilla Mirtha Mercedes, Aguilar Armas Haydee Mercedes, Vicuña Villacorta Jessica Ericka, Flores Ledesma Katia Ninoska, Javier Alva Leda, Muñoz Hernandez Helmer. Anxiety and Depression in Times of Pandemic by Covid 19 -- Palarch's Journal of Archaeology of Egypt/Egyptology 18(8), 336-347. ISSN 1567-214x

Keywords: Anxiety, Depression, Epidemic, Covid 19

ABSTRACT

The present study reveals the emotional reactions of anxiety, depression, and their variants to the pandemic, which is why the relationship between anxiety and depression (chi of 75.667 and p <0.05) in times of the COVID-19 pandemic was determined, in addition the factors associated with these variables were identified. We worked with a sample of 619 people from

the city of Trujillo-Peru, using a non-probability sampling for convenience. The Goldberg Anxiety and Depression scales were used, with adequate validity and reliability; accompanied by a sociodemographic file. Finding that anxiety is more prevalent than depression, likewise the associated factors are female sex, the age group of young people and adolescents, economic and working conditions.

INTRODUCTION

Currently, the world is experiencing an exceptional situation due to the advance of what is called the first global pandemic in history (Ribot et al, 2020). In mid-March 2020, the COVID 19 Coronavirus arrives in Peru, a disease that appeared for the first time in Wuhan-China, which is spreading rapidly throughout the world (Maguiña et. al, 2020; Ozamiz- Etxebarria et al. ,2020). The Peruvian government takes immediate measures, decreeing the entry into quarantine quickly and unexpectedly, closing economic, labor, social, recreational, educational, and daily life activities in general. The Economic Commission for Latin America and the Caribbean (ECLAC, 2020), refers that the measures adopted would generate one of the greatest economic crises worldwide (Prieto-Molinari et.al, 2020). All these circumstances may bring with them different factors that may lead to mental health problems, including anxiety and depression (Greenberg et al., 2020), which would be manifested not only in people in quarantine, but also in those who are in the first line of health detection (Inchausti et al., 2020).

Faced with the uncertainty brought about by the pandemic, this study focuses its attention on the forms of manifestation of anxiety and depression, recognizing the variants that occur in this new context (Johnson, et. al, 2021), as well as the association of emotional symptoms that affect the psychological and social well-being of people (Orellana and Orellana, 2020). The data obtained will allow timely intervention measures to be taken to help the population manage the emotional reactions that arise because of changes in this new lifestyle (Gómez-Becerra, et. al, 2020; Hernández, 2020).

The presence of this disease can generate stressful situations for people such as fear and anxiety in relation to what could happen; this disease would be overwhelming, generating uncontrollable feelings in the population (Valero, 2020). Thus, when facing risk situations, on many occasions physical health can be affected with obvious symptoms. However, at the psychological level this affectation is not always easy to identify (Ribot et al, 2020); but during the pandemic they are being more visible (Romero, 2020), not only in adults, but in children, adolescents and older adults, in this regard (Galindo, et al, 2020), tell us that there is a significant percentage of university students 21.3% living in urban areas have mild anxiety, due to the unstable economic situation and the delay in academic activities for being at a distance.

Valero et al, (2021) state that "uncertainty, fear, and restrictions related to the pandemic of COVID-19 caused by the SARS-CoV-2 virus have posed particular challenges".

Ozamiz, et al (2020) tell us that when biological disasters occur, uncertainty, fear and stigmatization are common, which is why it is important to

implement appropriate mental health and medical interventions. These interventions are fundamental to know the psychological situation of the study group.

For example, in the 2009 influenza A (H1N1) epidemic, it was found that the college population surveyed was not concerned about the pandemic situation, nor did they think it was serious. In fact, younger respondents (aged 20-34 years) were the most likely to believe that they were not susceptible to H1N1, despite being the group most affected in previous influenza pandemics. (Ozamiz, et al 2020, p: 12).

In this sense, Orellana & Orellana, (2020), point out that people currently suffer from symptoms of fear, anxiety, discouragement, melancholy, anguish, and depression. These reactions are related to the fear of being infected, frustration at not finding a solution to the problems they face, lack of income to access necessities, scarcity of job opportunities, as well as the loss of family and friends. All these experiences are generating an emotional decompensation, a situation that shows us how this pandemic is generating a negative impact on mental health (Hernández, 2020), which represents a permanent challenge for those who treat these conditions.

It is known that any disease or any situation that endangers our health is loaded with both psychological and emotional reactions, bringing with it fears that on many occasions can affect the course of the disease, so it is of vital importance to be able to control these emotional reactions as they could influence the origin and consequences of the disease (Ozamiz-Etxebarria et al., 2020).

It should be considered that anxiety and depression are frequent clinical difficulties in the general population. The onset, evolution and permanence of these psychopathologies are associated with multiple factors, both personal and social. Studies in this area highlight the importance of personal and emotional characteristics for the onset and development of these emotional states (Arrieta et.al, 2014). The family environment is one of the most important predictors of psychological health, notably influencing the subject and his or her interaction with the environment. Another factor is the relationships that are maintained with the most significant people such as parents, partner, friends, siblings; any conflict or crisis in this environment can generate crises linked to their mental health in general.

In view of this, the crisis we are currently experiencing affects and modulates the expression of these states of mind. Properly managing these reactions brings a burden that many people cannot face, so it is considered urgent to strengthen personal skills that allow the human being to face and cope with the consequences in the change of lifestyle in the face of the pandemic; this will allow that there are alternatives that allow to decrease and channel the anxiety and depression that we now live (Arango-Dávila and Rincón- Hoyos, 2018).

Any situation of illness and especially those that we do not know well its origin and/or treatment, will trigger a series of reactions not only cognitive,

but also emotional, facing the uncertainty that this brings with it; these reactions can come plagues of anxiety, catastrophic thoughts, anguish for the future, putting into play the expectations of overcoming it; it is common to have fear of the unknown, not knowing how to cope with the disease, pain and loss of self-care, associated with the fear of possible death.

Several studies show how anxiety is related to depression, highlighting that it not only has a pathophysiological component, but is also linked to clinical and contextual aspects. One study shows that 58% of people diagnosed with depression had some type of anxiety. Likewise, we found evident signs of depression in 56% of patients with anxiety. Studies show that depression and anxiety are linked to diseases, especially those that bring pain or chronic suffering, due to the intensity of the symptoms, a situation that increases these states of mind (Ramirez-Ortiz et. al, 2020).

A study conducted in Peru during the pandemic indicates that more than 50% of the surveyed population presents emotional difficulties, with symptoms related to anxiety and depression standing out, and to a lesser extent symptom associated with poor impulse control; it is also noted that family adjustment is seriously affected, due to the new quarantine coexistence guidelines (Sanchez and Mejia, 2020).

Faced with this problem and the mortality caused by the virus, associated with both physical and emotional sequelae of those infected and their close environment, symptomatology becomes visible due to the impact generated by the modification of routines. Consequently, Apaza (2020) maintains that, during the beginning of the pandemic, there were episodes of anxiety and depression in society in general.

Therefore, the present study aims to establish the relationship between anxiety and depression in times of Covid-19 pandemic. As well as to identify their associated factors.

Sandin et al (2020), tells us that the sample used of 2070 people, 95% of respondents present a significant level of depression, the sample was composed of men and women between 18 and 75 years of age, of which 27. Another finding of the study that is important to mention is that the age group between 18 and 24 years is the group with the highest level of depressive symptoms, followed by the group between 25 and 34 years which reaches 32.2% and the group with the lowest percentage of depressive symptoms is the age group considered among people over 65 years representing 9.3%.

METHODS AND MATERIALS

This study was conducted with a total sample of 619 people from the city of Trujillo-Peru, all of them pursuing studies or with higher education, coming from different districts of the city. The sample was obtained by non-probabilistic convenience sampling. Aged between 18 and 75 years old. Of these people, 415 were female and 204 were male, 23 were adolescents, 271 were young people, 313 were adults and 12 were older adults. For data collection, the Goldberg General Health Questionnaire was applied, which

was transferred to the Google form, in which the informed consent form was included, so that the study participants were aware of the objective of the study and gave the corresponding permission for their participation.

The socio-demographic record was also considered, which contained data such as age, sex, number of children, occupation, and history of mental illness. The Goldberg Anxiety and Depression Scale -EADG (Goldberg et al., 1988), consists of two subscales, one for anxiety and the other for depression. Each subscale has 9 dichotomous response items (Yes / No) consisting of 4 initial screening items, to determine whether it is likely that there is a mental disorder, and a second group of 5 items that are formulated if positive responses to the screening questions are obtained (2 or more for anxiety and more than 1 for depression), for a more complete study the full scale was applied. Both questionnaires yield independent scores for each subscale, the corresponding rating is given according to the Likert scale. (Martín et al., 2015).

In the present study, and to obtain more consistent data in relation to the population, the internal consistency reliability of the instrument was carried out, obtaining a Cronbach's alpha coefficient of .85 (González et al., 2015), yielding item-test values $>.32$. The study was carried out by sending an e-mail to the persons evaluated and the responses were collected by means of an online questionnaire between June and July 2020, with prior request for consent for the application.

Results

Table 1. Prevalence of Anxiety and Depression Symptomatology According to The Goldberg Scale.

		N°	%	IC 95%
anxiety				
	Si (≥ 4 points)	426	68.8	65.2 - 72.5
	No (< 4 puntos)	193	31.2	27.5 - 34.8
depression				
	Si (≥ 3 points)	229	37.0	33.2 - 40.8
	No (< 3 puntos)	390	63.0	59.2 - 66.8

Source. Authors

Table 2. Factors Associated with The Presence of Anxiety in The Participants from The Province of Trujillo.

		Yes (426)		No (193)		Chi	p
		N°	%	N°	%		
Age (Life Cycle)							
	adolescent	19	82.6	4	17.4	18.683	0.000
	young people	201	74.2	70	25.8		

	adult	203	64.9	110	35.1		
	Older adult	3	25.0	9	75.0		
Sex							
	female	309	74.5	106	25.5	18.648	0.000
	male	117	57.4	87	42.6		
N° children							
	0	262	71.8	103	28.2	7.621	0.106
	1	88	70.4	37	29.6		
	2	42	60.0	28	40.0		
	3	26	57.8	19	42.2		
	4 a more	8	57.1	6	42.9		
Family background							
	No	237	61.4	149	38.6	26.324	0.000
	Yes	189	81.1	44	18.9		
Economic problems							
	No	167	58.8	117	41.2	24.543	0.000
	Yes	259	77.3	76	22.7		
occupation							
	Housewife	21	67.7	10	32.3	25.729	0.001
	unemployed	4	57.1	3	42.9		
	teacher	24	64.9	13	35.1		
	Public employee	6	54.5	5	45.5		
	Entrepreneur (a)	2	25.0	6	75.0		
	student	198	73.1	73	26.9		
	Dependent worker	122	70.1	52	29.9		
	Health worker	4	25.0	12	75.0		
	Self-employed	45	70.3	19	29.7		

Source. Authors

Table 3 Factors Associated with The Presence of Depression in The Participants from The Province of Trujillo.

		Yes (229)		No (390)		Chi	p
		N°	%	N°	%		
Age (Lifecycle)							
	adolescent	14	60.9	9	39.1	23.788	0.000

	young people	121	44.6	150	55.4		
	adult	93	29.7	220	70.3		
	Older adult	1	8.3	11	91.7		
sex							
	female	163	39.3	252	60.7	2.813	0.093
	male	66	32.4	138	67.6		
N° children							
	0	148	40.5	217	59.5	6.924	0.140
	1	38	30.4	87	69.6		
	2	22	31.4	48	68.6		
	3	14	31.1	31	68.9		
	4 a more	7	50.0	7	50.0		
Family background							
	No	110	28.5	276	71.5	31.770	0.000
	Yes	119	51.1	114	48.9		
Economic problems							
	No	83	29.2	201	70.8	13.591	0.000
	Yes	146	43.6	189	56.4		
occupation							
	Housewife	12	38.7	19	61.3	16.628	0.034
	unemployed	2	28.6	5	71.4		
	teacher	9	24.3	28	75.7		
	Public employee	3	27.3	8	72.7		
	Entrepreneur (a)	2	25.0	6	75.0		
	student	122	45.0	149	55.0		
	Dependent worker	51	29.3	123	70.7		
	Health worker	4	25.0	12	75.0		
	Self-employed	24	37.5	40	62.5		

Source. Authors

Table 4 Relationship Between Anxiety and Depression in Participants from The Province of Trujillo.

anxiety	depression				Total		Chi test square (p = 0.000)
	Yes		No		N°	%	
	N°	%	N°	%			
Si	206	48.4%	220	51.6%	426	100%	chi = 75.667 (p = 0.000)
No	23	11.9%	170	88.1%	193	100%	
Tl	229	37.0%	390	63.0%	619	100%	

Source. Authors

DISCUSSION

The data obtained in this study show the prevalence of symptoms associated with anxiety and depression, generated by social isolation due to the Covid-19 pandemic in the city of Trujillo-Peru. Mental health is a priority issue in public health issues, since morbidity related to this topic shows high rates not only in adolescents but also in adults and especially in the elderly.

Studies indicate that anxious and depressive problems are among the most prominent in the general population. Their causes are diverse, and the management and little knowledge of them makes people more vulnerable (Huarcaya, 2020).

The results show that 68% of the population shows anxiety in this stage of social isolation 68.8%, ranging in a 95% confidence interval between 65.2% and 72.5%. We can understand that anxiety manifests itself when situations beyond our control occur, causing changes in our body that are often associated with symptoms of an illness. In times of COVID-19 pandemic, people have presented high levels of anxiety, interpreting any symptom as associated with the Covid-19 disease. Bodily manifestations will influence their behavior, often limiting them to see reality objectively (Santamaria et.al., 2020).

On the other hand, the prevalence of depression symptomatology was found to be 37%, ranging in a 95% confidence interval between 33.2% and 40.8%. International studies show similar results referring that having close contact with news and/or people related to the disease generates a strong feeling of fear, anguish and uncontrollable loneliness associated with difficulty in falling asleep, exhaustion, fatigue, and melancholy (Prieto, 2020).

The results show that the factors related to anxiety and depression in times of social isolation are closely related to the life cycle or age group, finding that the most affected were the group of adolescents and young people ($p < 0.05$), this population tends to present marked traits of anxiety and depression, having a tendency to generate behaviors that are not very adaptable to the context, many young people at this stage have shown how difficult it is to control their responsibility to their families, showing a desire to go out and interact with young people of their age, while on the other hand a large

number of young people have developed an intense fear of exposure, showing unusual reactions in relation to the situation they are living (Arrieta, 2014).

On the other hand, sex is another related factor, being women the group most affected by anxiety; women in themselves assume a very important role in the social development of any country, the pandemic has made clear how women must face in many occasions, alone this stage that we are living, in addition to this, and by their own characteristics they are more sensitive and show greater pain before the disease and death. On the other hand, men are not immune to this ailment, but the forms of manifestations vary significantly according to sex. Finally, it has been seen that the measures adopted by governments have greatly affected both men and women (ECLAC, 2020; UN News, 2020; WHO, 2020b; Wenham et al., 2020). However, it is necessary to mention that previous studies show us that both anxiety and depression, have a prevalence with a higher incidence in the female sex in contexts without pandemics (Gutiérrez & Portillo, 2015; Lai et al., 2020; MINSAL, 2017; PAHO, 2017; Orellana, 2020).

In participants with family history, 81.1% presented symptoms of anxiety and 51.1% presented symptoms of depression; mental health problems linked to anxiety and depression are directly related to the presence of previous mental illness in the family, it is important to know the genetic map from which we come, so we can take measures that allow us to perform activities that reduce the risk that these are presented (OR = 5.5) (Gómez-Restrepo, 2015).

The fact of presenting economic problems linked to anxiety affected 77.3% and 43.6% associated with depression of the population; the literature shows that people who experience economic difficulties suffer greater difficulties in the area of mental health, due to the various difficulties that this brings with it and even more if there is family burden, emotional states, will be more altered and therefore the concern, fear for the future, and need to seek the best for him or his family is closely linked to anxiety symptoms (Londoño and Gonzalez, 2015). Finally, another associated factor was occupation, finding that the groups most affected by anxiety are students, teachers, dependent and independent workers, and by depression, the group of housewives and the unemployed. Thus, in the face of changes in relation to working conditions, human beings become more vulnerable in relation to their emotional state (Gómez and Calderón, 2017).

There is evidence of a significant relationship between the anxiety and depression symptomatology present in the population with a chi of 75.667 and $p < 0.05$, observing that 48.6% showed anxiety linked to depression symptomatology. These data show us the effects of the pandemic on mental health; COVID-19 has brought high levels of anxiety about health, accompanied by irrational ideas associated with death with oneself and one's environment, the uncertainty in relation to the labor and economic condition exacerbates depressive disorders (Shiguango, 2020).

CONCLUSIONS

We can conclude that under any danger of illness, anxiety and worry are always present. Quarantine intensifies the appearance of emotional problems,

especially symptoms associated with depression and anxiety, thus increasing mental health problems, all due to isolation and social distancing.

The limited personal interaction, the messages given through audiovisual channels and the situation we live in predispose to the appearance of anxious and depressive symptoms (Huarcaya, 2020).

The data show that anxiety is more marked than depression in times of pandemic, likewise the factors associated with greater prevalence are the female sex, the age group of young people and adolescents, economic and labor conditions, the same that exacerbate the emotional states.

REFERENCES

- Arango-Dávila, C., Rincón-Hoyos, H. (2018). Depressive disorder, anxiety disorder and chronic pain: multiple manifestations of a common pathophysiological and clinical core. *Colombian Journal of Psychiatry*. 47 (1). 46-55. <https://doi.org/10.1016/j.rcp.2016.10.007>
- Arrieta Vergara, K., Díaz Cárdenas, S. and González Martínez, F. (2014). Depressive and anxiety symptoms in young university students: prevalence and related factors. *REV CLIN MED FAM*; 7(1): 14-22.
- Balluerka, N., Gómez, J., Hidalgo, M.D., Gorostiaga, A., Espada, J.P., Padilla, J.L., & Santed, M.Á. (2020). The psychological consequences of Covid-19 and confinement. University of the Basque Country.
- Brito-Brito, P.R., Fernández-Gutiérrez, D.Á., & Cuéllar-Pompa, L. (2020, May 11). Emotional management of health crisis in the face of coronavirus: a narrative review. *Enfermería Clínica*, 31(1), 1-5. <https://doi.org/10.1016/j.enfcli.2020.05.010>.
- Carmen Valiente, Camelo Vázquez, Vanesa Peinado, Alba Contreras, & Almudena Trucharte. (2020). Anxiety, depression, and post-traumatic stress symptoms in the face of COVID-19: prevalence and predictors. Madrid: Complutense University of Madrid.
- De los Santos-Roig, M., & Pérez-Meléndez, C. (2014, May). Item analysis and reliability evidence of the Scale on Cognitive Representation of Illness (ERCE). *Annals of Psychology*, 30(2), 438-449. <https://dx.doi.org/10.6018/analesps.30.2.164021>.
- Galindo Vásquez, O., Costas-Muñoz, R., Mendoza-Contreras, L., Calderillo-Ruiz, G., & Meneses-García, A. (2020). Anxiety symptoms, depression, and self-care behaviors during the COVID-19 pandemic in the general population. (Dialnet, Ed.) *Mexican Medical Gazette*, 156(4), 298-305. doi: ISSN.
- Gómez-Becerra, I., Flujas, M., Andrés, M., Fernández-Torres M. and Pilar Sánchez Lopez, P. (2020) Evolution of psychological state and fear in childhood and adolescence during COVID-19 confinement. *Journal of Clinical Psychology with Children and Adolescents*. 7(3), 11-18. Available at: <https://dialnet.unirioja.es/servlet/articulo?codigo=7649327>.
- Gómez-Restrepo, C., Santacruz, C., Nelcy, M., Rodríguez, V., Tamayo, N., Matallana, D., & González, L. (2016, July 01). National Mental Health Survey Colombia 2015. Protocol of the study. *Revista Colombiana de Psiquiatría*, 45(Suppl. 1), 2-8.

- <https://dx.doi.org/10.1016/j.rcp.2016.04.007>
- Gonçalves, F., González, V.M., & Vázquez, J. (2008). *Quality Primary Care Good Clinical Practice Guideline in depression and anxiety* (2nd Ed.). Legal Medical Organization.
- Hernández, J. (2020). Impact of COVID-19 on people's mental health. *Medicent Electron*. 24(3).578-594. Retrieved from:
<http://www.medicentro.sld.cu/index.php/medicentro/article/view/3203/2587>
- Hernandez, G . (2020). Emotion management in times of pandemic and its impact on academic performance. *Rev. UCV HACER Inv. Cult*. 9(4)21: 55-64 October - December 2020. Chiclayo, Lambayeque - Perú ISSN PRINT: 2305-8552 ISSN ELECTRONIC: 2414-8695 Available at: <http://revistas.ucv.edu.pe/index.php/UCV-HACER/article/view/2634>
- Huarcaya-Victoria, J. (2020). Mental Health Considerations in the Pandemic of COVID-19. *Rev Peru Med Exp Salud Publica*. 2020;7(2):327-34. <https://doi.org/10.17843/rpmesp.2020.372.5419>
- Inchausti, F., García-Poveda, N.V., Prado-Abril, J., & Sánchez-Reales, S. (2020). Clinical Psychology in the face of the COVID-19 Pandemic in Spain. *Clinic and Health*, 31(2), 105-107. <https://doi.org/10.5093/clysa2020a11>.
- Johnson, M.C., Saletti-Cuesta, L., & Tumas, N. (2020). Emotions concerns and reflections in the face of the COVID-19 pandemic in Argentina. *Ciência & Saúde Coletiva* [online]. 25, (1) 2447-2456. <https://doi.org/10.1590/1413-81232020256.1.10472020>>. ISSN 1678-4561.
- Londoño, C., and González, M., Prevalence of Depression and Associated Factors in Men. *Acta Colombiana de Psicología*, 19 (2) 315-329. <http://www.dx.doi.org/10.14718/ACP.2016.19.2.13>.
<http://www.doi.org/10.14718/ACP.2016.19.2.13>
- Maguiña, C., Gastelo, R. Tequen, A. (2020). The new Coronavirus and the Covid-19 pandemic. *Heredian Medica Magazine*. 31(2) <http://dx.doi.org/10.20453/rmh.v31i2.3776>
- Orellana, C. and Orellana. L, (2020). Predictors of emotional symptoms during home quarantine due to COVID-19 pandemic in El Salvador. *Actualidades en Psicología Journal*. 34(128).103-120. <http://dx.doi.org/10.15517/AP.V34I128.41431>
- Ozamiz-Exebarria, N., Dosil-Santamaría, M., Picaza-Gorrochategui, M., & Idolaga-Mondragon, N. (April 30, 2020). Levels of stress, anxiety, and depression in the first phase of the COVID-19 outbreak in a sample collected in northern Spain. *Public Health*, 36(4). doi: <https://doi.org/10.1590/0102-311X00054020>
- Prieto-Molinaria, D., Aguirre., De Pierola, L., Luna Victoria-deBona, G., Merea, L., Lazarte, C., Uribe-Bravo, K. Zegarra, A. (2020). Depression and anxiety during compulsory isolation by COVID-19 in Metropolitan Lima. *Liberabit*. 26(2), e425 (July - December) ISSN (Digital): 2223-7666. <https://doi.org/10.24265/liberabit.2020.v26n2.09>
- Ramírez-Ortiz, J., Castro-Quintero, D., Lerma-Córdoba, C., Yela-Ceballos, F., Escobar-Córdoba, F. (2020). Consecuencias De La Pandemia Covid 19 En La Salud Mental Asociadas Al Aislamiento Social. <http://Dx.DOI.org/:10.1590/SciELOPreprints.303>

- Ribot, V., Chang, N., Lázaro, A. (2020). Effects of COVID-19 on the mental health of the population. *Habanera Journal of Medical Sciences*. 19 (SUPPLEMENT) ISSN 1729 - 519X. Retrieved from <http://www.revhabanera.sld.cu/index.php/rhab/article/view/3307>
- Romero, R. M. (2020, October). Depression and Meaning of Life in college students in Pandemic Times. *International Journal of Educational Psychology*, 9(3), 223 - 242. <http://dx.doi.org/10.17583/ijep.2020.6784>
- Ruvalcaba, N.A., Gallegos, J., Flores, A., & Fulquez, S.C. (2013, April 23). Social-emotional competencies as a protective factor against anxiety and depression symptomatology in adolescents. *Psicogente*, 16(29), 55-64. <https://www.redalyc.org/articulo.oa?id=4975/497552362006>
- Sánchez, H. and Mejía, K. (2020). Mental Health Research in Pandemic Conditions by COVID-19. Retrieved from <https://repositorio.urp.edu.pe/handle/URP/3311>.
- Sandín, B., Valiente, R. García-Escalera and Paloma Chorot, P. (2020). Psychological impact of the COVID-19 pandemic: Negative and positive effects in Spanish population associated with the period of national confinement. *Journal of Psychopathology and Clinical Psychology / Journal of Psychopathology and Clinical Psychology*, 25 (1), 1-22, 2020. Retrieved from <http://revistas.uned.es/index.php/RPPC/article/view/27569/pdf>.
- Santamaría, M., Ozamiz-Etxebarria N., Redondo, I., Jaureguizar J., and Picaza M. (2020). Psychological impact of COVID-19 in a sample of Spanish health professionals. *Journal of Psychiatry and Mental Health* <https://doi.org/10.1016/j.rpsm.2020.05.004>
- Sarabia, S. (2020, January). Mental health in the times of the coronavirus. *Journal of Neuro-Psychiatry*, 83(1), 3-4. <https://dx.doi.org/10.20453/rnp.v83i1.3680>
- Valero-Cedeño, M., Velez-Cuenca, M., Duran-Mojica, A., & Torres Portillo, M. (January 3, 2021). COVID-19 coping: stress, fear, anxiety, and depression. *Enfermería Investigates*, 6(1). doi: ISSN online: 2550-6692 ISSN: 2477-9172.
- Vergara, K., Díaz-Cárdenas, S., & Martínez, F. (2014, January 12). Depressive and anxiety symptoms in young university students: prevalence and related factors. *Revista Clínica de Medicina de Familia*, 7(1), 14-22. <https://doi.org/10.4321/S1699-695X2014000100003>