



## Research articles

**Excessive internet use during the covid-19 pandemic in a population of north lima**

Rosa Perez-Siguas\*, Hernan Matta-Solis, Eduardo Matta-Solis

Universidad María Auxiliadora, Lima, Perú.

**ABSTRACT**

Currently, the internet use in conjunction with mobile devices is one of the resources that is increasingly used in the population, however its excess consumption can generate consequences at the mental level of the person. The research objective is to determine the Excessive Internet Use during the COVID-19 pandemic in a population of North Lima. In the results, we observe that, excessive internet use during the COVID-19 pandemic, 67 (59.3%) of the participants have a mild addiction to the internet use and 46 (40.7%) have a moderate addiction to internet use. It is concluded that strategies should be sought to guide parents towards proper management of the Internet use in their children and thus reduce dependence on the Internet use.

**Keywords:** Internet, Mental health, Coronavirus, Pandemic.

Received - 29-07-2021, Reviewed - 02/09/2021, Revised/ Accepted- 26/11/2021

**Correspondence:** Rosa Perez-Siguas<sup>1\*</sup> ✉ [rosa.perez@uma.edu.pe](mailto:rosa.perez@uma.edu.pe)

Research Directorate, Universidad María Auxiliadora, Lima, Perú.

**INTRODUCTION**

At present, the internet use in smart devices has increasingly become routine for the population in their daily lives and they are widely around the world<sup>[1],[2]</sup>, but today during the coronavirus pandemic (COVID - 19) The internet use is increasing due to the confinement, quarantine and isolation at home as a result of the pandemic, generating a serious global health problem<sup>[3]</sup> and this can have serious consequences on health, affecting both the physical and mental level of the population<sup>[4],[5]</sup>.

Likewise, the interruption of routine life where things to do at home, studies and work have been hampered by the pandemic<sup>[6]</sup>, where staying at home, studying virtually, working from home, using social networks or video games are useful for prevent the spread of COVID - 19<sup>[7]</sup> and that also reduces anxiety, depression and stress, but also that excessive internet use from smart devices during the COVID - 19 pandemic will generate damage to health that can cause high probabilities of disorders mental health<sup>[8]</sup>.

Therefore, the excessive and uncontrolled internet use has become one of the social and behavioral problems during the COVID-19 pandemic<sup>[9],[10]</sup>, since excessive internet use can generate anguish, family and social deterioration, and this can generate problems of dependence on the internet<sup>[11]</sup>. And this, in people, will generate changes in their behavior, where the fact of not using the internet in both the young and the adult population will present

symptoms of risk of internet addiction problems and can generate long-term problems<sup>[12],[13]</sup>.

In a study carried out in China<sup>[14]</sup>, it was observed in 2050 study participants that 67.3% of the male sex had internet addictions and 32.7% of the female sex also had internet addiction, maintaining that during the COVID pandemic - 19 internet use had increased. In another study carried out in China<sup>[15]</sup>, it was observed in 6416 study participants that 46.8% of the participants had a greater dependence on the internet use and that 16.6% used the Internet for long hours, and that they were coping behaviors due to the COVID-19 pandemic.

In a study carried out in Taiwan<sup>[16]</sup>, it was observed in 1060 study participants that 24.4% of the participants had a high prevalence of internet addiction<sup>[17]</sup>, where high impulsivity, high virtual social support, age, family dysfunction and alexithymia were predictive factors for internet addiction<sup>[18]</sup>. Therefore, the research objective is to determine the Excessive Internet Use during the COVID-19 pandemic in a population of North Lima.

**MATERIAL AND METHOD****Type of Research**

The research for its properties is quantitative, its methodology is descriptive, not experimental, cross-sectional<sup>[17]</sup>.

**Population**

The total population is made up of 113 participants from the Puente Piedra district in North Lima.

**Inclusion criteria**

- Participants who reside more than 1 year in the district.
- Participants who are between 18 to 35 years old.
- Participants who voluntarily participate in the study.

**Technique and Instrument**

The technique used is the survey, through the questionnaire or data collection instrument Internet Addiction Test (IAT) by Young, whose purpose is to measure the excessive internet use during the COVID-19 pandemic in a population of North Lima.

The IAT instrument contains 20 elements in a one-dimensional dimension that is scored with a Likert-type scale of "0 = never", "1 = rarely", "2 = occasionally", "3 = frequently", "4 = very often" and "5 = always", where the total score would range from 0 to 100 points where "0 to 30 points is normal addiction", "31 to 49 is mild addiction", "50 to 79 is moderate addiction" and "80 to 100 is severe addiction". The higher the score, the greater the problem of internet addiction<sup>[18]</sup>.

**Instrument location and application**

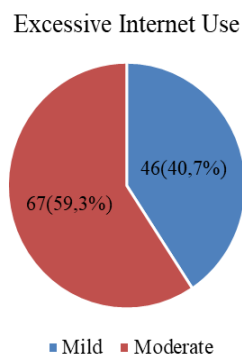
The survey was carried out virtually through the google form which will measure the excessive internet use during the COVID-19 pandemic in a population of the Puente Piedra district in North Lima.

First, we coordinated with the heads of each family to be able to carry out the surveys to obtain data for the study, in addition to that, the details corresponding to the investigation were provided.

After data collection, we observed that the population gave us good support for the study and, in addition, satisfaction at the time of making the database with the collaboration of the population.

**RESULT AND DISCUSSION**

Figure 1. Excessive internet use during the COVID-19 pandemic in a population of North Lima



In Figure 1, we observe the excessive internet use during the COVID-19 pandemic, where 67 (59.3%) of the participants have a mild addiction to internet use and 46 (40.7%) have a moderate addiction to internet use.

In Figure 2, we observe the excessive internet use in relation to the ages of the participants, where, between the ages of 18 to 26 years old, 34 (73.9%) of the participants have a mild addiction to Internet use and 53 (79.1%) have a moderate addiction to using the

internet; Regarding the ages of 27 to 35 years, 12 (26.1%) have a mild addiction to the internet use and 14 (20.9%) have a moderate addiction to the internet use.

Figure 2. Excessive internet use in relation to age during the COVID-19 pandemic in a population of North Lima

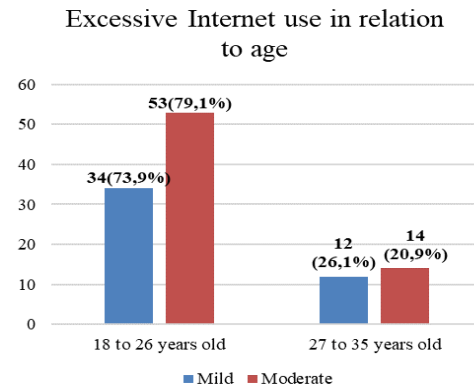
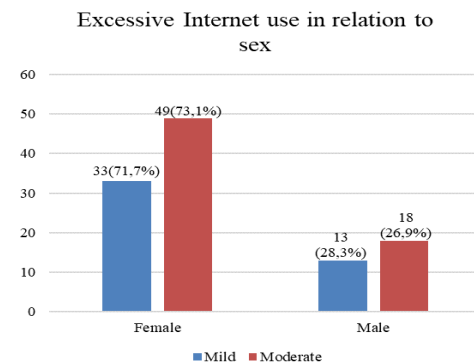


Figure 3. Excessive internet use in relation to sex during the COVID-19 pandemic in a population of North Lima



In Figure 3, we observe the excessive internet use in relation to sex, where, the female sex, 33 (71.7%) have a mild addiction to the internet use and 49 (73.1%) have a moderate addiction to the internet use; Regarding male sex, 13 (28.3%) have a mild addiction to the internet use and 18 (26.9%) have a moderate addiction to the internet use.

Table 1. Excessive internet use in relation to marital status during the covid-19 pandemic in a population of north lima

		marital status			Total	
		Single	Married	Cohabitant		
Excessive Internet Use	Mild	Count	42	0	4	46
		% Within Excessive Internet Use	91.3%	0.0%	8.7%	100.0%
	Moderate	Count	61	4	2	67
		% Within Excessive Internet Use	91.0%	6.0%	3.0%	100.0%
Total		Count	103	4	6	113
		% Within Excessive Internet Use	91.2%	3.5%	5.3%	100.0%
Chi-square tests						
		Value	df	Asymptotic significance (bilateral)		
Pearson's Chi-square		4.422 <sup>a</sup>	2	.110		
Likelihood ratio		5.824	2	.054		
Linear by linear association		.353	1	.553		
N° of valid cases		113				
a. 4 cells (66.7%) have expected a count less than 5. The minimum expected count is 1.63.						

In Table I, we observe the relationship between excessive internet use and marital status, it was verified using Pearson's Chi-

square test ( $X^2$ ) to determine the relationship between both variables, where the level of significance of the test obtained a value of 1.63 ( $p > 0.05$ ) ( $X^2 = 4.422$ ;  $df = 2$ ). Therefore, emphasis is placed on a hypothesis of association between both variables. So, we can interpret that in single marital status, 42 (91.3%) have a mild addiction to internet use and 61 (91%) have a moderate addiction to internet use, in married marital status, 4 (6%) have a moderate addiction to the internet use; and in cohabiting marital status 2 (8.7%) have a mild addiction to the internet use and 2 (3%) have a moderate addiction to the internet use.

Table 2. excessive internet use in relation to occupation during the covid-19 pandemic in a population of north lima

		Occupancy			Total	
		Stable	Temporary	No occupation		
Excessive Internet Use	Mild	Count	3	37	6	46
		% Within Excessive Internet Use	6,5%	80,4%	13,0%	100,0%
	Moderate	Count	11	45	11	67
		% Within Excessive Internet Use	16,4%	67,2%	16,4%	100,0%
Total		Count	14	82	17	113
		% Within Excessive Internet Use	12,4%	72,6%	15,0%	100,0%
<b>Chi-square tests</b>						
	Value	df	Asymptotic significance (bilateral)			
Pearson's Chi-square	3,024 <sup>a</sup>	2	,220			
Likelihood ratio	3,209	2	,201			
Linear by linear association	,420	1	,517			
N° of valid cases	113					
a. 0 cells (.0%) have expected a count less than 5. The minimum expected count is 5.70.						

In Table II, we observe the relationship between excessive internet use and occupation, it was verified using Pearson's Chi-square test ( $X^2$ ) to determine the relationship between both variables, where the level of significance of the test obtained a value of 5.70 ( $p > 0.05$ ) ( $X^2 = 3.024$ ;  $df = 2$ ). Therefore, emphasis is placed on a hypothesis of association between both variables. Therefore, we can interpret that, in stable employment, 11 (16.4%) have a moderate addiction to the internet use and 3 (6.5%) have a mild addiction to the internet use, in temporary occupation, 37 (80.4%) have a mild addiction to the internet use and 45 (67.2%) have a moderate addiction to the internet use; and in those without occupation, 6 (13%) have a mild addiction to the internet use and 11 (16.4%) have a moderate addiction to the internet use.

In this research work, an approach is given from public health and mental health in the population of the Puente Piedra district, relating it to the internet use during the COVID-19 pandemic. In the results on the excessive internet use during the COVID - 19 pandemic, we observe that the population of the Puente Piedra district has moderate internet use, this is because today it produces the COVID - 19 pandemic, many of the people, including adolescents, young people and adults, tend to use the internet more, due to their virtual classes, work or even to relax, but that this event,

from last year to the present, has been a progressive increase, promoting an abuse of technology and making it conducive to dependence, resulting in an internet addiction. Likewise, the authors mention that, during the COVID-19 pandemic, they have used the internet in an excessive way, due to the fact that they use the internet for long hours, and the majority of those who have the greatest dependence on the internet are adolescents and young people, due to their virtual classes and especially videogames, and the latter tends to raise levels of dependence on games, leading to addiction, also called gambling addiction<sup>[15]</sup>.

In the results on excessive internet use related to age, it is observed that between 18 and 26 years old have a moderate internet use, this is because, as an early age, they tend to use more internet not only for their virtual classes, but also for social networks and video games, but that during the COVID-19 pandemic, it has been predicted that more the increase of adolescents and young people depending on the internet use is higher, where factors such as long hours using Internet, being attentive to any message on the cell phone or playing all day, has increased considerably today, but this is due to confinement at home, the closure of schools and universities, family coexistence, and quarantine due to COVID - 19, all this makes the younger population conducive to having serious long-term consequences. The authors also mention that the internet use in adolescents and young people is increasingly high, where possible Internet addiction can lead to limitations in their life, damage family relationships and studies<sup>[14]</sup>.

In the results in relation to sex and internet use, we observe that the female sex has a moderate internet use, this is because for the most part, the female sex uses their phones more to access the internet, where they use their phones for social networks, virtual activities with friends, they are even on their cell phone screens to talk by video call with a person.

The authors maintain that the female sex uses the internet more because it supports her to be able to face any problem she has, but that being so used to using the cell phone to connect to the internet, she can present nomophobia, where fear, anxiety and Obsession to have a cell phone at all times is one of the problems that can compromise a person's health<sup>[12],[13]</sup>.

## CONCLUSION

It is concluded that strategies should be sought to guide parents towards proper management of the internet use in their children and thus reduce dependence on the internet use.

It is concluded that family and social activities should be carried out that allow balancing the inappropriate internet use in children, both in adolescents and young people who are those of an early age.

Activities must be carried out that allow the population to maintain their lifestyle and this allows to prevent excessive internet use.

## REFERENCE

1. Jeong B, Lee J, Kim B, 2020. Associations of personality and clinical characteristics with excessive Internet and smartphone use in adolescents, A structural equation modeling approach, *Addict Behav*, 110:106485.
2. Martins M, Formiga A, Santos C, 2020. Adolescent internet addiction – role of parental control and adolescent behaviours, *Int J Pediatr Adolesc Med*, 7:116–20.
3. Gecaite J, Saudargiene A, Prankeviciene A, 2021. Impulsivity Mediates Associations Between Problematic Internet Use, Anxiety, and Depressive Symptoms in Students, A Cross-Sectional COVID-19 Study, *Front Psychiatry*, 12:1–8.
4. Ratan Z, Zaman S, Islam S, Hosseinzadeh H, 2021. Smartphone overuse, A hidden crisis in COVID-19, *Heal Policy Technol*, 10:21–2.
5. Chandrima R, Kircaburun K, Kabir H, 2020. Adolescent problematic internet use and parental mediation, A Bangladeshi structured interview study, *Addict Behav Reports*, 12:0–5.
6. Siste K, Hanafi E, Sen L, 2020. The Impact of Physical Distancing and Associated Factors Towards Internet Addiction Among Adults in Indonesia During COVID-19 Pandemic, A Nationwide Web-Based Study, *Front Psychiatry*, 11:1–11.
7. Alheneidi H, AlSumait L, AlSumait D, Smith A, 2021. Loneliness and Problematic Internet Use during COVID-19 Lock-Down, *Behav Sci (Basel)*, 11:5.
8. Király O, Potenza M, Stein D, 2020. Preventing problematic internet use during the COVID-19 pandemic, *Consensus guidance, Compr Psychiatry*, 100:1–4.
9. Glowacki E, Wilcox G, Glowacki J 2021. Identifying addiction concerns on twitter during the COVID-19 pandemic, A text mining analysis, *Subst Abus*, 42:39–46.
10. Seyed S, Hosseinnzhad S, Dini S, Griffiths M, Lin C, Pakpour A, 2020. The mediating effect of the cyberchondria and anxiety sensitivity in the association between problematic internet use, metacognition beliefs, and fear of COVID-19 among Iranian online population, *Heliyon*, 6:0–5.
11. Islam S, Hossain S, Tasnim R, 2020. Problematic internet use among young and adult population in Bangladesh, Correlates with lifestyle and online activities during the COVID-19 pandemic, *Addict Behav Reports*, 12:100311.
12. Lopez O, 2021. Emerging health and education issues related to internet technologies and addictive problems, *Int J Environ Res Public Health*, 18:1–19.
13. Deslandes S, Coutinho T, 2020. The intensive use of the internet by children and adolescents in the context of COVID-19 and the risks for self-inflicted violence, *Cienc e Saude Coletiva*, 25:2479–86.
14. Dong H, Yang F, Lu X, Hao W, 2020. Internet Addiction and Related Psychological Factors Among Children and Adolescents in China During the Coronavirus Disease 2019 (COVID-19) Epidemic, *Front Psychiatry*, 11:751.
15. Sun Y, Li Y, Bao Y, 2020. Brief Report, Increased Addictive Internet and Substance Use Behavior During the COVID-19 Pandemic in China, *Am J Addict*, 29:268–70.
16. Lin M, 2020. Prevalence of internet addiction during the covid-19 outbreak and its risk factors among junior high school students in Taiwan, *Int J Environ Res Public Health*, 17:1–12.
17. Fernández C, Baptista P, 2015. Metodología de La Investigación, 6ta Ed, México, Mc Graw-Hill/Interamericana.
18. Young K, 1998. Internet addiction, The emergence of a new clinical disorder, *Cyberpsychology Behav*, 19981:237–44.

### How to cite this article

Rosa Perez-Siguas, Hernan Matta-Solis, Eduardo Matta-Solis, 2021. Excessive internet use during the covid-19 pandemic in a population of north lima. *Jour. of Med. P'ceutical & Allied. Sci.* V 10 - I 6, 1582, P- 3743 - 3746. doi: 10.22270/jmpas.V10I6.1582