

Levels Of Depression And Anxiety In Mexican Health Workers Hospital Belisario Dominguez

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INTRODUCTION

One of the main actors worldwide to reduce the effects of the Covid-19 pandemic has been the health personnel of the different health systems. In Mexico, according to what was stated by the Federal Government, by the end of August 2020, 97 thousand 632 cases of health sector workers infected by the SARS - CoV-2 virus had been confirmed and another 10 thousand 933 cases were in quality of suspects, pending the result of laboratory tests. As of this same date, in the country there were a total of 568 thousand 621 people who had had the disease and 61 thousand 450 cases of people who died as a result of this condition.

Regarding health personnel who had become ill from Covid-19, it was detailed that there were 4,370 active cases (who had presented symptoms in the last 14 days and most of these were concentrated in Mexico City (468), Nuevo León (406) and Jalisco (348). Of the total infected, 60% were women, mainly nurses. Of the cases that had died, 70% were men between 50 and 69 years, of which 49% were doctors.

In a recent bibliographic review published in the *Revista Mexicana de Urología* on the impact on mental health of health personnel due to hospital conditions, risk factors and ethical aspects caused by the care of patients with Covid-19, it was concluded that health personnel may experience intense anxiety, uncertainty, loss of routines and traditions, stress, compassion fatigue, as well as moral damage, being prone to triggering mental disorders such as depression, post-traumatic stress disorder and even suicidal ideation (Torre-Muñoz, et al., 2020).

In a study carried out in the City of Zaragoza, Spain, the objective was to describe the psychological signs and symptoms that health professionals are developing in their work of caring for patients with Covid-19, in conditions characterized by the collapse of health services and under inadequate working conditions most of the time. They found that people who work in the field of health especially develop post-traumatic stress disorder (PTSD) and up to 20%

depressive disorders or develop adjustment reactions with increased levels of anxiety. They consider that among the factors that generate these disorders are: social isolation, separation from family members due to the demands of their professional work, constant and direct exposure to the disease and fear of infection, ethical dilemmas in the face of scarce resources for provide better care, as well as evidence repeated cases of death of patients and co-workers (Pelegrín, E., Pelegrín, V. and Galindo, W, 2020). In another study, which reached similar conclusions, the active detection of psychotic symptoms in front-line health workers against Covid-19 was recommended (Burgos-Berdud, Valdéz-Flrido & López-Díaz, 2020).

The challenge that the care of patients with Covid-19 has implied worldwide in an unprecedented situation due to the type of decisions that it has implied making and the work under enormous pressure from health personnel, led to Niel Greenberg and his colleagues (2020) to rely on a concept that originated in the United States military: Moral Injury; this to try to understand the mental situation that health personnel are experiencing in the face of this pandemic. They understand moral injury "as the psychological anguish that results from the actions or lack of them, that violate someone's moral or ethical code" (p.1). It is not equated with a mental health disorder such as depression or PTSD, although they consider that moral injury can lead to a mental health condition; They believe that those who develop moral injury experience negative thoughts about themselves and others, as well as intense feelings of shame, guilt, and disgust.

Both the World Health Organization (WHO) and the Pan American Health Organization (PAHO) have warned of the complex mental health situation that the Covid-19 pandemic can derive as a side effect. They have pointed out that the adversities associated with the socioeconomic consequences, the loss of jobs, the fear of the virus and its spread, this pandemic will have an important impact on the mental health of the population (PAHO, 2020; WHO, 2020).

The crisis that the Covid-19 generated in all educational, health and economic structures around the world has implied the implementation of different strategies, many of them under a trial and error model, to identify best practices of care for the population. The Federal Ministry of Health has developed different guidelines, guides, algorithms for medical procedures, recommendations, among others, to standardize and strengthen the protocols of care for the population. Last May, the Ministry of Health, as part of the mental health strategy in support of health personnel facing the Covid-19 pandemic, launched the beginning of the application of a screening test that assesses health status mental health team. It was highlighted that the need to identify and treat mental health among this population was related to the identification that, as a result of the pandemic, 70% of health personnel presented stress and 30% depressive symptoms (Xinhua News Agency, 2020).

METHOD

In order to identify the levels of anxiety and depression and associated factors in health personnel in Mexico, a non-experimental, cross-sectional, exploratory, descriptive and correlational investigation was carried out at the Belisario Domínguez Hospital in Mexico City.

As a measurement instrument, a structured, self-administered, anonymous and voluntary questionnaire was developed that was developed specifically for this sector of the population and that included the following areas:

The sample consisted of 603 men and 1,026 women.

RESULTS

Regarding the sociodemographic data analyzed in this study, the following table reports that most of the residents surveyed are women (63%), that 64% of them are between 30 and 49 years of age, mostly they are workers (87%) and almost 90% reside in CDMX.

The interviewed subjects reported that 17% work as a doctor and 18.6% as a nurse, that is: 35.7% are health personnel and 57% indicated that they have a bachelor's or postgraduate degree. In relation to the monthly income, it was found that 56.6% only receive between \$ 6,500.00 and \$ 13,000.00.

Table 1. Characteristics of the study population

Sex	%
Men	36.9
Women	63.1
Grouped age	
19 to 29 years	15.4
30 to 39 years	36.9
40 to 49 years	26.9
50 to 59 years	18.5
60 to 69 years	2.3
Position	
Lider	12.3
Worker	87.7
Residence	
CDMX	89.1
EDOMEX	10.9
Occupation	
Medical	17.1
Nursing	18.6
Employee	30.2
Administrative	34.1
Last Degree of studies	
Secondary	3.8
High School	32.3
Intern	6.9
Bachelor	37.7
Postgraduate	19.2
Aproximate Monthly income (pesos)	

<\$4,000	8.6
<\$6,500	29.7
<\$13,000	35.9
<\$20,000	14.8
<\$40,000	7.8
<\$60,000	3.1

LEVELS OF DEPRESSION AND ANXIETY

The levels of depression reported by HBD staff are indicated below (Figure 1). As can be seen, 68% of the subjects report a severe level of depression.

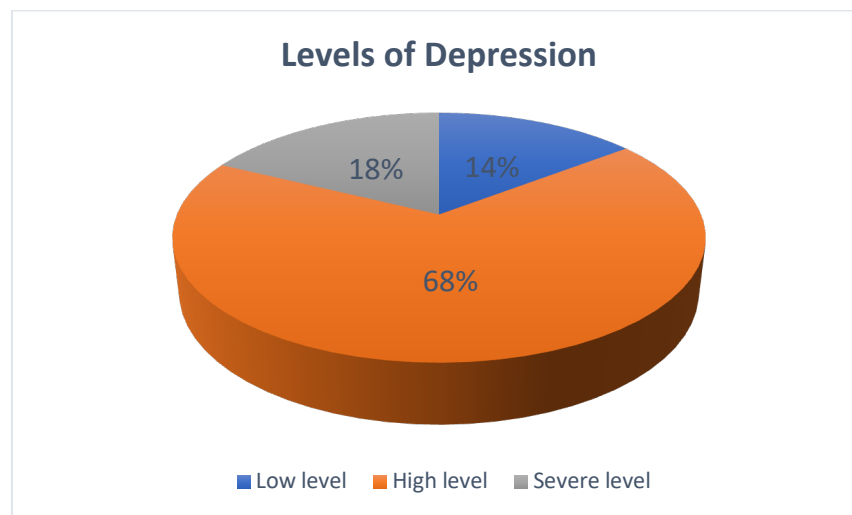


Figure 1

Likewise, it was found that the anxiety levels reported by residents is high, since high and severe levels were found in 66% of the studied population (Figure 2)

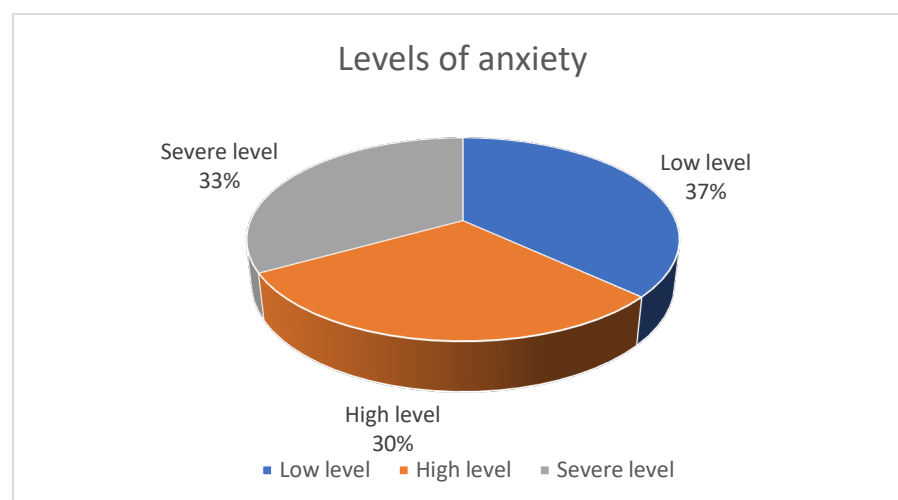


Figure 2

When performing Chi-square analysis in order to determine the correlations between the variables studied, it was found that there are significant differences in the levels of depression

by sex ($p = .005$) since women reported lower levels of severe depression than men, although reported higher levels of high depression (Figure 3).

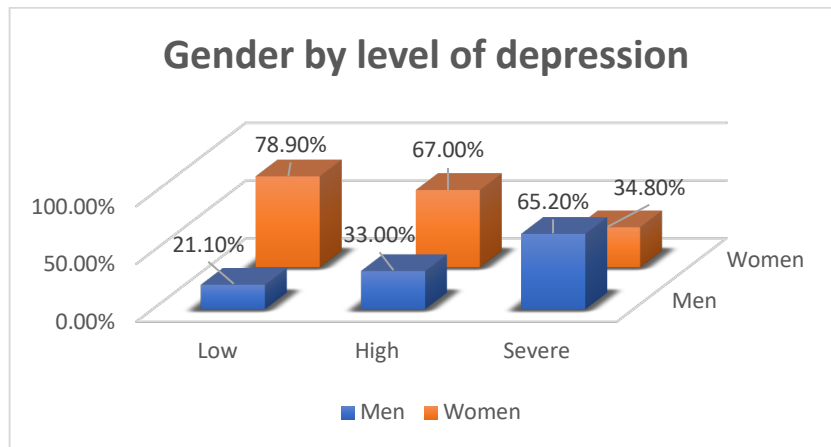


Figure 3

Other variables that were significant are the following:

Age indicates significant differences by age groups ($p = .005$), observing in Figure 4 that the subjects whom reported low levels are mostly young, while in the severe level all the subjects are older than 60 years old.

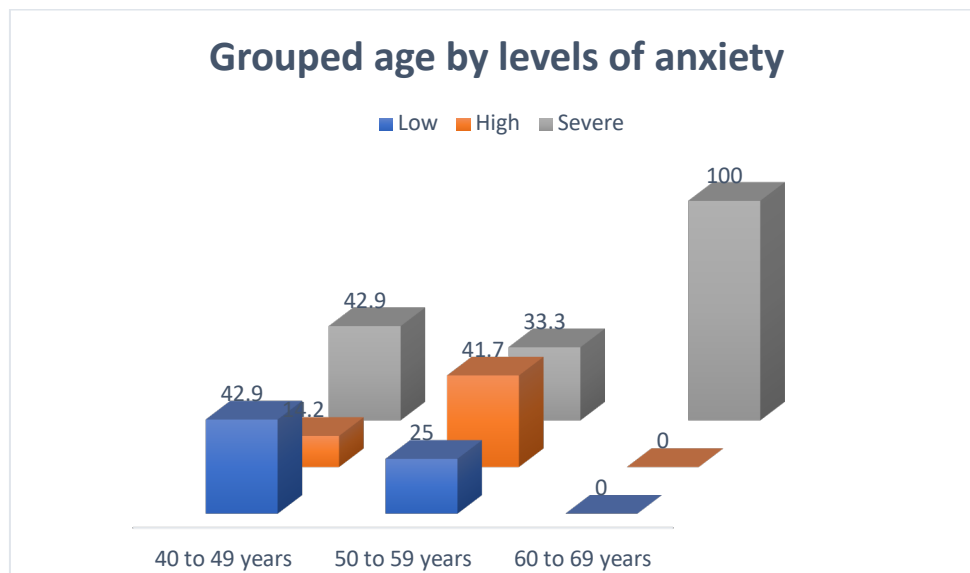


Figure 4

In Figure 5, it is observed that differences in anxiety levels by gender are significant ($p = .005$) and men report higher levels of severe anxiety than women.

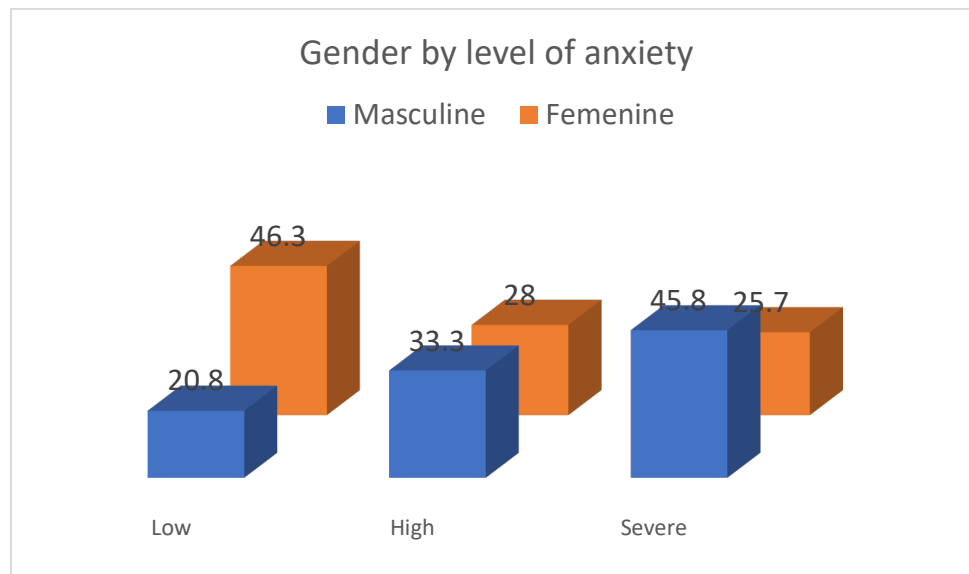


Figure 5

Finally, the following figure (6) reports the results of the statistical analysis between the two scales: depression and anxiety. It was found that there were significant differences ($p = .000$) between the two, which indicates that the symptoms are different and that the levels of depression are higher than those of anxiety.

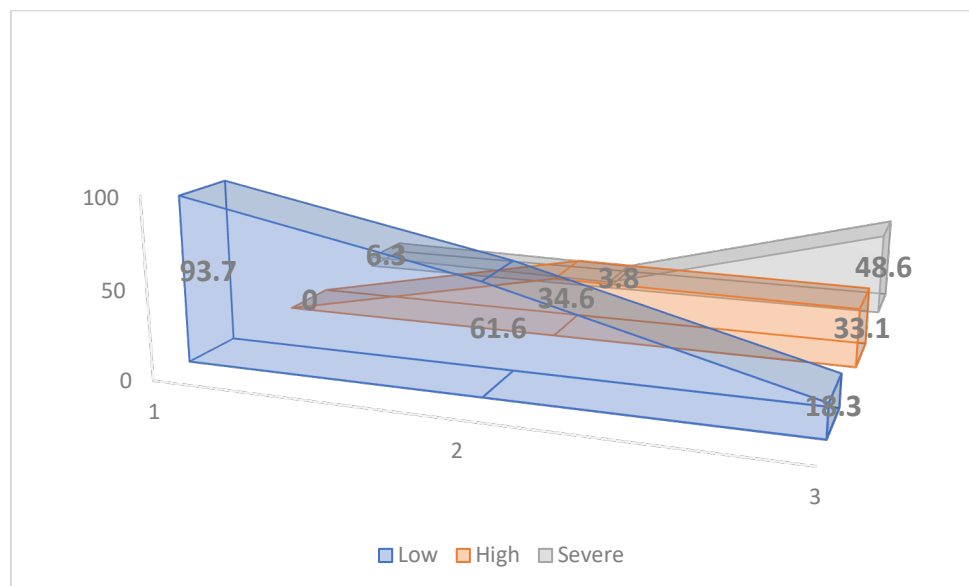


Figure 6. Anxiety levels by levels of depression

CONCLUSIONS

The COVID-19 pandemic generates physical and emotional stress in different degrees to the health personnel who work in hospitals dedicated to the direct care of patients with this disease, which manifests itself in various forms of anxiety and depression, making its prevention so difficult as its diagnosis and timely management. These conditions diminish their abilities and facilitate the generation of tension in the work environment as well as in their interpersonal relationships.

Thus, the present study reports that the studied subjects present symptoms and signs of depression in two thirds of the population and anxiety. Using statistical formulas, levels of said symptoms were established and it was found that the older the age, the higher the level of anxiety and that severe depression is reported in 18% of the participants and the low level in almost 70%. In relation to anxiety levels, it was found that two thirds present high and severe anxiety levels.

When analyzing gender by the three levels of depression and anxiety, significant differences were found since women indicated that they were mostly in the low level, while men did so in the severe level.

Although all the subjects who participated in this study indicate having low and medium levels of depression and anxiety, the analyzes report that men report higher rates of symptoms.

This research was carried out under the guidelines of the Declaration of Helsinki, the Regulation of the General Health Law on Research for Health, as well as the Official Mexican Standard NOM-012-SSA3-2012. An informed consent letter was obtained. At all times, the records of the health personnel were kept anonymous, as well as the confidentiality of each individual studied through the delivery of a consecutive number in confidential files.

References

- Alomía, José Luis (2020). *Conferencia vespertina de la Secretaría de Salud (SSA)*, 25 de agosto de 2020, Palacio Nacional, México, Canal 11, 19 hrs.
- Burgos-Berdud, Valdéz-Flrido y López-Díaz (2020). Are healthcare workers during the COVID-19 pandemic at risk of psychosis? Findings from a scoping review. *Gen Hosp Psychiatry*; 2020; Jul 2; recuperado de <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7329681/pdf/main.pdf>
- Greenberg, N., et al. (2020). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *BMJ* 2020; 368: m1211. Recuperado de <https://doi.org/10.1136/bmj.m1211>
- Jianbo Lai, Simeng, Ying Wang, et al. (2020). Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. *JAMA Network Open*. March, 2020;3(3): e203976.
- Huang JZ, Han MF, Luo TD, Ren AK, Zhou XP. Mental health survey of 230 medical staff in a tertiary infectious disease hospital for COVID-19. *Zhonghua Lao Dong Wei Sheng Zhi Ye Bing Za Zhi*. 2020;38; citado en Lozano-Vargas, A. (2020). Impacto de la epidemia del Coronavirus (COVID-19) en la salud mental del personal de salud y en la población general de China. *Rev Neuropsiquiatr*. 2020; 83(1):51-56
- OMS (2020). Mental health & COVID-19. Recuperado de <https://www.who.int/teams/mental-health-and-substance-use/covid-19>
- OPS (2020). COVID-19 Intervenciones recomendadas en salud mental y apoyo psicosocial (SMAPS) durante la pandemia, OPS/NMH/NM/COVID-19/20-0026, recuperado de <https://iris.paho.org/handle/10665.2/52427>
- Pelegrín, E., Pelegrín, V. y Galindo, W, (2020). Cómo afecta el Covid-19 a la salud mental del personal hospitalario. *Ocronos. Vol. III. N° 3 – Julio 2020*. Pág. Inicial: Vol. III ; n°3: 203
- Torre-Muñoz V., Farias-Cortés J.D., Reyes-Vallejo L.A., Guillen-Díaz-Barriga C. (2020). Riesgos y daños en la salud mental del personal sanitario por la atención a pacientes con Covid-19. *Rev. Mex. Urol*. 2020;80 (3): pp 1-9
- Wu Z, McGoogan JM. (2020). Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72 314 Cases From the Chinese Center for Disease Control and Prevention. *JAMA*. 2020 Apr 7;323(13):1239. Recuperado de <https://doi.org/10.1001/jama.2020.2648>

Xinhua News Agency (2020). México lanza estrategia de salud mental en apoyo a personal sanitario que enfrenta pandemia por COVID-19. 10 de mayo de 2020. Recuperado de <http://udgtv.com/noticias/mexico-lanza-estrategia-salud-mental-apoyo-personal-sanitario-enfrentar-pandemia/>