

Mental health in times of pandemic: A literature review

Salud mental en tiempos de pandemia: revisión bibliográfica

Astrid Rozo-Sánchez¹, Diego Rivera-Porras², Ginna Pérez-Reyes³, Mabel García-Echeverri⁴,
Claudia Carolina Cabrera-Gómez⁵, Ruth Jimena López-Jaimes⁶

SUMMARY

Society is going through a pandemic because of COVID-19 originating in Wuhan (China), which has triggered crises in all the nations of the world, which has transformed daily life, due to the measures taken by governments to stop the increase in infections. However, isolation, quarantine, concern, and fear of contagion and/or death have directly affected mental health. The research focused on identifying the main consequences of the pandemic and isolation on mental health, it was carried out from a qualitative

methodology, under a bibliographic design, of a documentary type, the sample was of a theoretical type, made up of 58. Finally, it was found that there are population groups vulnerable to stress and various reactions of people to changes, however, mental health care has been underestimated and it is necessary to develop strategies to avoid generating an epidemic in the population about mental health.

Keywords: Mental health, COVID-19, pandemic, and isolation.

RESUMEN

La sociedad está atravesando por una pandemia como consecuencia del COVID-19 origina en Wuhan (China) que ha desencadenado crisis en todas las naciones del mundo, que ha transformado la cotidianidad, debido a las medidas tomadas por los gobiernos para detener el aumento de contagios, sin embargo, el aislamiento, la cuarentena, la preocupación y temor por el contagio y/o muerte ha afectado directamente la salud mental. La investigación se enfocó en identificar las principales consecuencias de la pandemia y el aislamiento sobre la salud mental. La investigación se enfocó en identificar las principales consecuencias de la pandemia y el aislamiento sobre la salud mental, se realizó desde una metodología cualitativa, bajo un diseño bibliográfico, de tipo documental, la muestra fue de tipo teórica, conformada por 58 artículos Finalmente, se encontró que existen grupos poblacionales vulnerables al estrés y diversas reacciones de las personas ante los cambios, sin embargo, la atención de la salud mental ha sido subestimada y es necesario que se desarrollen

DOI: <https://doi.org/10.47307/GMC.2021.129.s1.28>

<https://orcid.org/0000-0002-3286-7632>*
<https://orcid.org/0000-0003-2169-3208>*•
<https://orcid.org/0000-0003-3607-4047>***
<https://orcid.org/0000-0002-3624-0992>****
<https://orcid.org/0000-0002-2845-9994>*****
<https://orcid.org/0000-0002-2524-0428>*

*Universidad Simón Bolívar, Facultad de Ciencias Jurídicas y Sociales, Cúcuta - Colombia

**Universidad de Pamplona, Facultad de Salud, Pamplona - Colombia

***Corporación Universitaria Minuto de Dios - UNIMINUTO, Facultad Ciencias Humanas y Sociales, Cúcuta - Colombia

****Universidad Mariana, Facultad de Humanidades y Ciencias Sociales, Programa de Psicología, Pasto – Colombia

•Corresponding author: Diego Rivera-Porras. E-mail: d.rivera@unisimonbolivar.edu.co

Recibido: 25 de noviembre 2020

Aceptado: 28 de enero 2021

estrategias para no generar en la población una epidemia sobre la salud mental.

Palabras clave: *Salud mental, COVID-19, pandemia, aislamiento.*

INTRODUCTION

The year 2020 has been characterized by being unpredictable in its behavior, in which various phenomena have occurred such as forest fires in Australia during summer 2019/2020 that were devastating, having catastrophic consequences on biodiversity and the economy (1); Also, the arrival of African hornets to various countries, including the United States, in this same country, sparked strong protests over the murder of African-American George Floyd, as well as the reappearance of Anonymous who infiltrated the Pentagon and revealed great information increasing the Protests that were taking place in that country (2). For its part, in Colombia the assassinations of social leaders have increased, groups outside the law have been reactivated and murders increase every day, not counting the crises social areas in which each population is immersed (3).

However, the most particular and complex situation has been the emergency caused by the SARS-CoV-2 virus, also called COVID-19 or simply "Coronavirus". To understand the situation a little better, it is necessary to know a little more about this disease, which according to various sources (4,5) originated in Wuhan (China); The virus, being an intelligent organism, and with a high level of survival, developed mechanisms for its survival, causing a high level of contagion, which spread to all countries of the world (6).

SARS-CoV-2 is a highly contagious virus, and although its level of mortality is low compared to other diseases, concerning the mortality rate in Colombia according to the director of DANE (2020) between 2 March and July 19, the number of deaths in Colombia was 97 353 from all causes, of which 9 124 correspond to deaths associated with coronavirus (7), that is, COVID-19 is not the main cause of mortality, without However, the symptoms are severe and can end in the death of the person suffering from it. Therefore, in many

countries, different strategies have been used to contain the virus, since its mortality rate is not high, but dealing with the symptoms requires expensive materials, elements, and machinery, for which in many countries there is no coverage.

On the other hand, taking as a reference not the evolution and complexity of the disease, but the measures chosen by governments to prevent the spread of the virus, this document arises, because due to the thousands of infected, asymptomatic, and deceased people, a public health emergency has been evidenced, mental health being one of the most affected areas in the population, along with the economy (8,9).

When reviewing the historical contexts, diseases and pandemics of previous centuries are taken as fact, and as reported, all these events coincided in that the exposed people presented negative consequences at a psychological, behavioral, cognitive, community, economic, social, and labor level. from the individual to the community (10-12).

For Rosselli (2020) (13), pandemics are common processes in evolution, and these have been present since ancient times since he considers that for the individual to become resistant, they must be exposed to complex situations. It is known as an epidemic, the outbreak of a disease that attacks many people in the same place, which can be a neighborhood, city, department, country, or continent (14). A clear example of what has been described is what was called the Black Death in which approximately 20 million people perished, who resided between Europe, North Africa, and the Middle East in the years 1346 and 1351. However, the damage caused Not only were the lives of those who perished due to this situation, but great crises were evident in civilization, especially in the Western one due to its epidemiological and demographic characteristics (15). Another example is the Spanish flu, which was considered by Sánchez-Yanez (2006) (14) as one of the worst pandemics in the history of mankind since it caused more deaths in one year than even the plague itself. black in a century.

Leaving aside a bit the issue of pandemics and epidemics, to understand all their effects, it is necessary first to talk about coronaviruses, and it is that various authors (16,17) consider

that they have been present in the environment for many years, even some scientists who have studied these viruses, associate their structure with a “solar corona” according to information obtained since the 1960s. However, over the years they were studied more than anything. in veterinary medicine since in the year 90 associations were found between the virus and different pests that affected avian and mammalian species of commercial interest. However, its involvement in humans was not considered, since no symptoms or complications were reported as in these species (13).

Some authors (18-20) claim that humanity has suffered stronger and more devastating pandemics and endemic outbreaks than COVID-19 in the past. However, the problem of the current situation goes beyond the economy and isolation itself and includes different aspects such as fear of illness and death, feelings of loneliness, anxiety, uncertainty, irritability, depression, insomnia, stress, anger, increased consumption of alcohol or tobacco, somatization, perception of loss of health, domestic violence, among other psychological, sociological, economic, political and social aspects (21,22). It should also be noted that, although the psychological implications that COVID-19 represents are known, very few studies have been carried out on mental health problems.

At present, society considers the pandemic as a continuous and constant source of concern and fear, due to the constant transformation and evolution of SARS-CoV-2, since it continues to mutate and spread throughout the planet, according to studies. Epidemiological (23,24) the virus has already infected more than 20 million people, with a global death toll of approximately 727 000 and more than 11.5 million recovered.

In the background check, it was evidenced that the most affected country is the United States, with more than 5 million infections and more than 162 000 deaths (25). On the other hand, in Latin America, the most affected countries until mid-August are Brazil with more than 5 million infected and 167 201 deaths, Peru with 516 296 infected and 25 856 deaths, followed by Mexico with 511 369 infections and 55 908 deaths, and Colombia with 445 111 infected and 14 492 deaths as a result of COVID-19 (26).

As days go by, cases grow exponentially, making the American continent the region most currently affected by COVID-19, leaving thousands of infected and deaths due to the virus in its wake. Below the image determines the degree of affectation of the various countries, the darker the color, the greater the contagion and deaths.

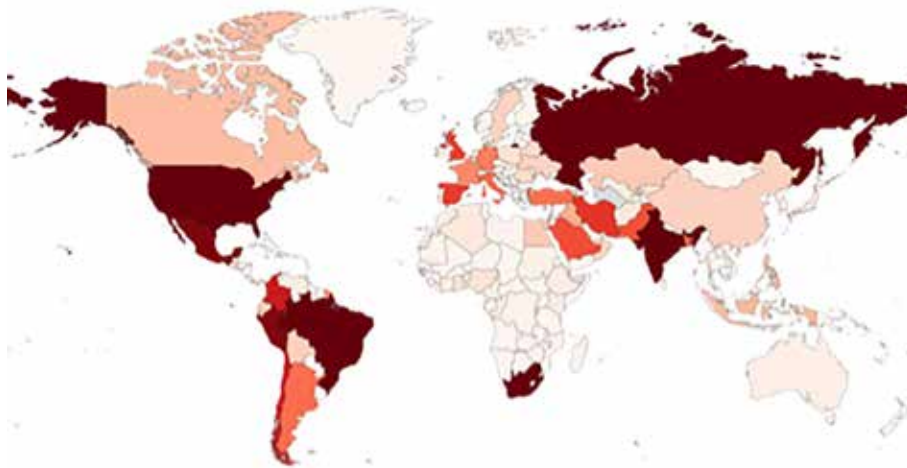


Figure 1. COVID infections.
Source: (25).

It should be noted that, after the declaration of emergency worldwide, multiple studies refer to the increase in negative emotions (anxiety, sadness, uncertainty) and decrease in positive emotions (satisfaction, happiness), also, the distorted information against the virus and Without having an effective treatment to eradicate the coronavirus, it has led people to increase these negative emotions (27,28).

Likewise, social isolation gives rise to psychological problems, due to the distancing between individuals, the absence of interpersonal communication, increases the probability of developing depressive and anxiety disorders (29,30), also, appropriate psychosocial interventions are They are affected by the measures decreed by national and local governments (31).

Society, disease, and pandemics

Authors such as Espada, Orgilés, Piqueras, and Morales (2020) (32) consider that infectious disease outbreaks have haunted humanity for years, thus generating significant changes in people's habitual social behavior, mental health, and physical conditions. That is why, in this document, it is considered important to address mental health, since for Alvites-Huamaní (2020) (4) it is considered a dynamic process of well-being that allows the relationship between the various human capacities, the context, and the environment, not only individually, but also in a group, especially in all those groups and groups that make up society (33).

When reviewing the reports from different media (34-36) it has been identified that the pandemic situation has generated problems and difficulties in aspects related to well-being and mental health in general. Due to the perception of the population worldwide about exposure to COVID-19, especially in relation to a large number of infected and dead people, as well as the economic problems generated by isolation, this, in turn, has produced responses emotions of uncertainty, fear, anguish, and hopelessness, allowing to estimate an increase in psychological and psychopathological problems, according to the experimentation and magnitude of the event, together with the degree

of vulnerability (4,37,38).

For Wang, Pan et al. (2020) (39) the factors that most affect human beings during confinement are physical and psychological well-being, because people exposed to these situations generate alterations in their daily life, among which are They highlight the loss of habits and routines, the stress in all its forms, sleep problems, increased consumption of psychoactive substances and drugs, among others.

In the study carried out by Orellana and Orellana (2020) (40) that sought to analyze the psychological impact of quarantine due to COVID-19, evidence was found in the interruption of habits during confinement and the generation of other unhealthy ones, and both situations were associated with physical problems.

For Balluerka-Lasa, et al. (2020) (5) various conditions influence the development of a pandemic, which usually end up becoming various sources of stress for those involved. Some studies on emergencies and stress (41,42) allow us to conclude that the variables mainly involved in the psychological impact are the irrational fear of virus infection and diseases, the generation of feelings of frustration, boredom and symptoms of apathy, the difficulties of sustenance, maintenance and minimum conditions of care, habitability and basic needs, as well as the lack of information and clear guidelines for action in the face of the situation (5).

In accordance with this, two types of situations of psychological affectation can be expected that can occur during and after confinement (32).

1. Those that can be considered specific affectations because they are caused by one or more stimuli related to the context of COVID-19.
2. Impairments of a non-specific type, in which it is not possible to identify a particular triggering stimulus, other than the set of contextual changes derived from the pandemic and confinement.

On the other hand, fear and distorted thoughts of risk can cause negative social behaviors, leading to mental health problems, leading to

distress reactions and increased risk behaviors for human health, in addition to causing disorders of Post-traumatic, anxiety, and depressive stress (8,43).

It should be noted that, when there is a situation that puts the health of individuals at risk, the mental apparatus enters an emotional imbalance, immediately the human being must activate the tools to face the situation (29).

It is pertinent to identify some considerations to consider regarding mental health in the epidemic, according to Lozano-Vargas (2020) (9):

1. Protect people from chronic stress so they can meet their responsibilities.
2. Guarantee good quality and up-to-date information to the entire community.
3. Facilitate and guarantee access to mental health and psychosocial support services.
4. Guide how to offer basic emotional support to affected people.
5. Managing stress and psychosocial well-being during this time is just as important as taking care of physical health.
6. Take care of basic needs and use helpful coping strategies.
7. Employ the use of digital methods as a way to maintain contact with loved ones.

METHODS

The research was carried out under a bibliographic design of a documentary type, whose source of information was secondary data, a search was carried out for information about mental health in relation to COVID-19 and its various names, the data was collected in previous investigations.

Within the search criteria in the research, the following keywords were considered: pandemic, COVID-19, coronavirus, mental health, predisposing factors, effects of isolation, emotional responses, coping, psychology, the above, bearing in mind that they conjugated the keywords and/or phrases to obtain information in the various scientific databases.

It should be noted that the documents investigated are divided into articles, action protocols, research reports, news, and reports from international organizations compared to the figures generated during the pandemic. In this way, the sample was determined, which was of a theoretical or conceptual type and was made up of 57 documents traced from 2006 to the beginning of August 2020, to these documents to establish them as a sample, their content and their content were analyzed relationship with mental health and pandemic.

These documents were obtained from various databases of scientific information, among which are: Dialnet, Lantindex, Medline, ProQuest, Redalyc, Scielo, Science Direct, and Scopus, in addition to the official media portals and international organizations.

Table 1
Databases

Database name	Number of documents
Dialnet	8
Lantindex	5
Media	3
Medline	4
Pan American Health Organization	1
ProQuest	6
Redalyc	5
Scielo	21
Science direct	3
Scopus	1
Total	57

Source: self-made.

On the other hand, the data collected in the search for information were systematized, interrelated, and finally processed to obtain the results of the investigation.

Inclusion criteria

The documents had to meet the search criteria referred to above, in addition, the documents had to be within the established time range (2006-August-2020).

Exclusion criteria

All those documents that were not related to the search criteria and that were below the established range were excluded.

RESULTS

Population groups and COVID-19.

Below are the findings found, the product of the review, and the analysis carried out. As a first significant contribution, the population groups that may be most affected by the disease are described (see Figure 2), in which they are located: 1. Older adults and people with chronic diseases, 2. Children and adolescents, 3. Staff health, and 4. People with mental illness.

In accordance with this, it was found that self-care and mutual care at a personal and social level (individual and collective), start from the principle of responsibility, and at the same time that this is one of the most effective mechanisms, to avoid the spread of contagion, which would end up collapsing the sanitary and hospital lines, that is why, Pimienta (2020) (31) considers that

the spread of the virus can be reduced if certain guidelines are followed such as hand washing, the reduction of physical contact with other people, and the use of face masks and masks, to avoid the spread of the virus and its impact on vulnerable population groups and all people in general.

On the other hand, various reactions of the people were also found to the changes and the infection mechanisms of the disease (see Figure 3), among which anxiety stands out, since people develop different feelings, in the face of social pressures, academic, and work, as well as contact or closeness to infected family members, and if they are positive for the disease, they can be the victim of attacks of discrimination and intolerance (8). Another reaction found is the fear of loneliness, since this feeling takes root in people and generates feelings of helplessness, fragility, and insecurity, as well as can generate intrusive thoughts about the possibility of dying due to infection (21,45,46).

However, the reactions described above are not the only ones that occur, there is also uncertainty because this crisis covers not only health aspects, but also economic, political, educational, social, family and work, this is due to situations unstable and uncertain, and people, not being able to solve

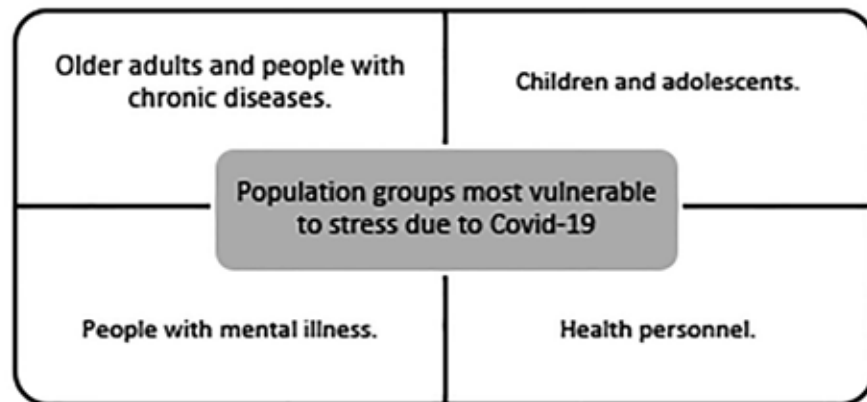


Figure 2. Population groups most vulnerable to stress by COVID-19. Source: (44)

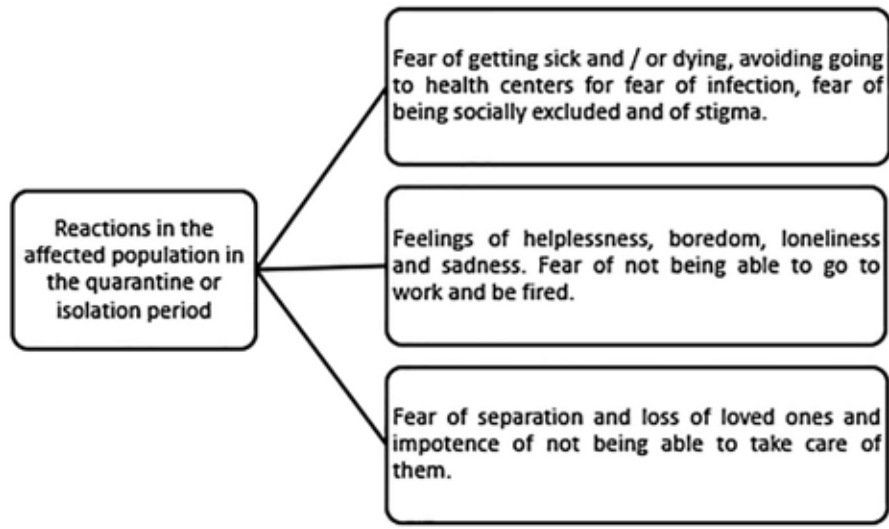


Figure 3. Reactions in the affected population in the quarantine or isolation period.
Source: (44)

these conflictive situations, generate feelings of helplessness, resignation and bewilderment, all this as a result of social and work isolation (9).

Another important reaction to consider is fear, for Johnson, Saletti-Cuesta and Tumas (2020) (21) this can be considered as a protection and apathy mechanism since its main function is to prepare people's response in certain situations (47). However, the authors state that there are situations in which fear is not useful or productive since it can become a dysfunctional emotion. It is due to this, that Muñoz-Lombo (2020) (36) considers that fear grows silently and permanently, feeding on the knowledge gap, in the case of diseases, especially COVID-19, there is a large number of Scientific and non-scientific, free and easily accessible information that is available to all types of public, however, not all this information is reliable and valid, since the source may be doubtful or on occasions, the proper interpretation may not be performed. and verification of it, creating greater confusion and panic in society (48,49).

For this reason, Parrado-González and León-Jariego (2020) (41) consider that another

aspect, which must be taken into account, is the updating of epidemiological reports, since there are variables such as logistics, data processing, and analysis, which may alter the information disclosed, causing an environment of insecurity, unstable and low credibility towards the population, coinciding with the position of Chacón Fuertes, Fernández Hermida & García Vera (2020) (50), who consider that Fear and Anxiety in the face of an uncertain threatening situation, as it happens in these infectious epidemics, can turn into excessive fear and panic, saturating health care with inadequate demands for help, demanding increasing quantities of protective products, in such a way as to lead to a shortage of medical supplies. who need it most, or by developing behaviors that are useless or dangerous or do not help to adequately contain the disease (51).

It is due to all these reasons, that the need arises to establish a model for decision-making since this will allow identifying what information could be useful, and which not, so as not to further increase the crisis and needs to be detected (Table 2 and Figure 4).

MENTAL HEALTH IN TIMES OF PANDEMIC

Table 2
Decision-Making Model for the Pandemic

Level	Name	Activity
1	Evaluate the information that is transmitted to the population.	That the information is reliable, evidence-based, and understandable by the general public.
2	Keep social supports active and functional.	Vital supports must continue to actively communicate through various means.
3	Reduce possible stigmas around stereotypes of the pandemic.	Fight myths, fallacies, and conspiracy theories that often create an environment of suspicion and guilt.
4	Have a safe and normal life as possible.	Emphasis on personal and family protection, while continuing life as close to normal and maintaining new styles of bonds and jobs.
5	Use private or governmental services that allow the emotional recovery of its citizens.	Guide citizens in the various options that exist to manage and overcome their fears, anxieties, and sadness. Here the emphasis is placed on psychosocial services and distance psychotherapy.

Source: (52)

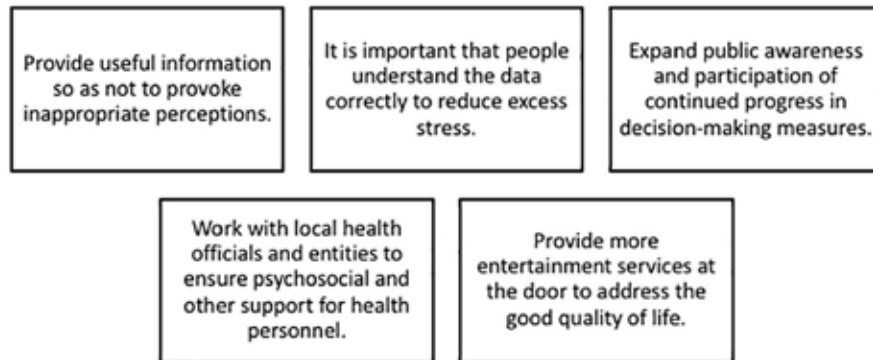


Figure 4. Mental health recommendations during the COVID-19 pandemic
Source: (53)

CONCLUSIONS

The different pandemics and epidemics that the world has gone through in multiple periods and that have led to drastic measures, including extensive quarantines and prolonged social isolation, generated significant consequences in mental health, during and after the outbreak with highly negative responses in the people, especially in those population groups most vulnerable to stress (9).

Against the aforementioned, Astrés and de Alencar Ribeiro (2020) (34) refer that the COVID-19 pandemic will increase the psychopathology of the world population, specifically in those with predisposing factors, that is, an epidemic is generated on mental health, which indicates that feelings of fear, uncertainty, stress, anguish, anxiety, among other aspects, increased (8,54).

It should be noted that the COVID-19 pandemic has generated a crisis in all sectors,

both political, economic, social, and mainly in the health sector that has collapsed because no country was prepared for this crisis, all means have been available to safeguard physical health, however, mental health care has been underestimated (21,55).

Due to this underestimation of mental health, sleep patterns, nervousness that lead to anxiety, excessive worry, and restlessness have been affected, however, not all these reactions that have been generated as a result of the crisis are pathological, some are natural reactions to the changing and uncertain context that society is going through (50).

According to the above, Lozano-Vargas (2020) (9) highlights that psychology assumes a fundamental role in the COVID-19 pandemic, because it is essential to promote the health and well-being of people, besides, to understand psychologically the epidemic, the context of the people, psychologically prepare individuals for adaptation and return to everyday life that will be transformed about the behavior patterns before the crisis (27,31). This indicates that it is crucial to develop strategies that lead to the strengthening of mental health (56).

Finally, it is essential that in the confrontation of the pandemic and social isolation, according to Ribot Reyes, Chang Paredes and González Castillo (2020) (57), resilience, intra-family relationships, personal growth are strengthened, thus reducing the psychosocial impact as a consequence of COVID-19 in society.

REFERENCES

- Girardin LO. Los incendios forestales en Australia. ¿ Estamos inevitablemente “al horno”? Ciclos en la Historia, la Economía y la Sociedad. 2020;(54):181-195.
- El tiempo. Protestas por muerte de afroamericano a manos de policías en EE. UU. El tiempo. 2020.
- Cárdenas-Ruíz JD, Roncallo-Dow S, Cruz-González MC. Los líderes sociales en la agenda digital de los congresistas colombianos: entre la corrección política y la denuncia directa. *Análisis Político*. 2020;33(98):66-84.
- Alvites-Huamaní CG. COVID-19: pandemia que impacta en los estados de ánimo. *CienciaAmérica*. 2020; 9(2): 354-362.
- Balluerka-Lasa N, Gómez-Benito J, Hidalgo-Montesinos M, Gorostiaga-Manterola A, Espada-Sánchez J, Padilla García J, et al. Las consecuencias psicológicas de la COVID-19 y el confinamiento. *Universidad del País Vasco*; 2020.
- Molero TM, Utate SJ. Aportes a la teoría del diseño inteligente desde los contenidos curriculares de la genética molecular. *Apuntes Universitarios*. 2020;10(1):1-13.
- Cifuentes L. COVID no ha sido la causante del mayor número de muertes en 2020, dice el DANE. *La FM*. 2020.
- Huarcaya-Victoria J. Consideraciones sobre la salud mental en la pandemia de COVID-19. *Rev Perua Med Exper Salud Públ*. 2020;37(2).
- Lozano-Vargas A. Impacto de la epidemia del Coronavirus (COVID-19) en la salud mental del personal de salud y en la población general de China. *Rev Neuro-Psiquit*. 2020; 83(1):51-56.
- Ramírez-Ortiz J, Castro-Quintero D, Lerma-Córdoba C, Yela-Ceballos F, Escobar-Córdoba F. Consecuencias de la pandemia COVID 19 en la salud mental asociadas al aislamiento social. *Biblioteca electrónica científica en línea*. 2020.
- Soyano A, Esparza J. La epidemia de gripe española en Venezuela (1918-1919). *Gac Méd Caracas*. 2020;128(3):324-337.
- Esparza J. Breve historia de las pandemias de influenza, su impacto en Venezuela, y su relevancia para entender la presente pandemia de la COVID-19. *Gac Méd Caracas*. 2020; 128(2): 194-206.
- Rosselli D. Epidemiología de las pandemias. *Medicina (Bogotá)*. 2020; 42(2).
- Sánchez-Yáñez JM. La peor pandemia de la historia de la humanidad: la gripe española. *Laboratorio de Microbiología Ambiental. Instituto de Investigaciones Químico-Biológicas*. 2006.
- Guillén JT. Sobre pandemias, catástrofes y otras patologías sociales. *Fios do Tempo (Ateliê de Humanidades)*. 2020.
- Abroug F, Slim A, Ouanes-Besbes L, Kacem MA, DF, Ouanes I, et al. Family cluster of Middle East respiratory syndrome coronavirus infections, Tunisia, 2013. *Emerg Infect Dis*. 2014; 20(9):1527.
- De Wilde AH, Snijder EJ, Kikkert M, van Hemert MJ. Host factors in coronavirus replication. In *Roles of Host Gene and Non-coding RNA Expression in Virus Infection*. Springer, Cham. 2017:1-42.
- Taubenberger JK, Morens DM. Influenza en 1918: La madre de todas las pandemias. *Rev Biomed*. 2006;17(1):69-79.
- Villamil Jiménez LC. Epidemias y pandemias: una realidad para el siglo XXI. *Un mundo y una salud*.

- Rev Lasallista de Investig. 2013;10(1):7-8.
20. Esparza J. Epidemias y pandemias virales emergentes: ¿Cuál será la próxima? *Investig Clín.* 2016;57(3):231-235.
 21. Johnson MC, Saletti-Cuesta L, Tumas N. Emociones, preocupaciones y reflexiones frente a la pandemia del COVID-19 en Argentina. *Ciência & Saúde Coletiva.* 2020;25:2447-2456.
 22. Carrillo-Sierra SM, Rivera- Porras DR. Actualización en psicología oncológica. *AVF Arch Venezol Farmacol Terap.* 2019;38(5):573-578.
 23. Pérez Abreu MR, Gómez Tejeda JJ, Dieguez Guach RA. Características clínico-epidemiológicas de la COVID-19. *Rev Habanera Cien Méd.* 2020;19(2).
 24. De Figueiredo AM, Codina AD, de Figueiredo DCMM, Gil-García E, Kalache A. Letalidad del COVID-19: ausencia de patrón epidemiológico. *Gac Sanitaria.* 2020.
 25. RTVE. El mapa mundial del coronavirus: más de 19,6 millones de casos y 727.000 muertos en todo el mundo. *Corporación de Radio y Televisión Española.* 2020.
 26. Organización Panamericana de la Salud. COVID-19 Sistema de información para la Región de las Américas. 2020.
 27. Gallegos M, Zalaquett C, Luna Sánchez SE, Mazo-Zea R, Ortiz-Torres B, Penagos-Corzo J, et al. Cómo afrontar la pandemia del Coronavirus (COVID-19) en las Américas: recomendaciones y líneas de acción sobre salud mental. *Rev Interam Psicol.* 2020;54(1):1304.
 28. López-Loyo E. La Gaceta Médica de Caracas hace 100, 50 y 25 años. *Gac Méd Carac.* 2020;1282:243-247.
 29. Lorenzo A, Díaz K, Zaldivar D. La psicología como ciencia en el afrontamiento a la COVID-19: apuntes generales. *An Acad Cien Cuba.* 2020;10(2).
 30. Pérez-Rey EJ, Arenas-Tarazona DY, Forgiony-Santos J, Rivera-Porras D. Factores predisponentes en la intervención sistémica de la violencia de género y su incidencia en salud mental. *Arch Venez Farmacol Terap.* 2019;38(5):547- 552.
 31. Pimienta PXG. Cuidando mi Salud Mental durante el COVID-19. *Asociación Mexicana de Psicología Hospitalaria.* 2020;1:24.
 32. Espada JP, Orgilés M, Piqueras JA, Morales A. Buenas prácticas en la atención psicológica infantojuvenil ante la COVID-19. *Clínica y Salud. Avance online.* 2020.
 33. Shyrley D. Fomento de la Salud Física en Pacientes de la Facultad de Odontología de la Universidad de Cartagena: Sistematización de Experiencias. *Ciencia e Innovación en Salud.* 2013.
 34. Astrés M, de Alencar Ribeiro AA. Salud mental y estrés ocupacional en trabajadores de la salud a la primera línea de la pandemia de COVID-19. *Rev Cuidarte.* 2020;11(2).
 35. Moreno-Proañó G. Pensamientos distorsionados y ansiedad generalizada en COVID-19. *Ciencia América.* 2020;9(2):251-255.
 36. Muñoz-Lombo JP. COVID-19: el miedo, el efecto silencioso de las epidemias. *Interdisci J Epidemiol Public Health.* 2020; 3(1): 6250-6250.
 37. Martínez Trujillo N. Retos de la Investigación en Sistemas y Servicios de Salud. *Ciencia E Innovación En Salud.* 2014.
 38. Colmenares YV, Hernández KD, Piedrahita MA, Espinoza-Castro JF, Hernández-Lalinde J. Hábitos de alimentación saludable en estudiantes de secundaria. *Arch Venezol Farmacol Terap.* 2020;39(1):70-79.
 39. Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 Coronavirus disease (COVID-19) epidemic among the general population in China. *Internat J Environm Res Public Health.* 2020;17(5):1729.
 40. Orellana CI, Orellana LM. Predictores de síntomas emocionales durante la cuarentena domiciliar por pandemia de COVID-19 en El Salvador. *Actual Psicol.* 2020; 34(128):103-120.
 41. Parrado-González A, León-Jariego JC. COVID-19: factores asociados al malestar emocional y morbilidad psíquica en población española. *Rev Esp Salud Pública.* 2020; 94(8): 16.
 42. Muñoz SI, Molina D, Ochoa R, Sánchez O, Esquivel JAE. Estrés, respuestas emocionales, factores de riesgo, psicopatología y manejo del personal de salud durante la pandemia por COVID-19. *Acta Pediatr México.* 2020; 41(4S1):127-136.
 43. Rodríguez Muñiz A, Martínez Castilla J, Arcila A, Padilla Sierra M, Jaramillo M, Davalos A, et al. COVID-19 - Pautas de práctica para cirugía plástica electiva. *Ciencia e Innovación en Salud.* 2020.
 44. Hernández- Rodríguez J. Impacto de la COVID-19 sobre la salud mental de las personas. *Medicentro Electrónica.* 2020;24(3):578-594.
 45. López-López J, López-Jaramillo P. Manejo de los pacientes con diabetes en la época de COVID-19: Recomendaciones prácticas. *Gac Méd Cara.* 2020;128(3):265-268.
 46. Tapia FOR. Descifrando la patogenia de la COVID-19. *Gaceta Médica Caracas.* 2020;128(3):307-312.
 47. González-Aristizabal D, Pumarejo-Sánchez J, Cudris-Torres L, Barrios-Núñez A, Olivella-López G, López-Castellar M, et al. Factores actitudinales sobre creencias del comportamiento suicida en estudiantes de psicología y medicina. *Arch Venez Farmacol Terapéut.* 2020;39(3):274-278.
 48. Quezada VE. Miedo y psicopatología la amenaza que oculta el COVID-19. *Cuader Neuropsicol.*

- 2020;14(1):19-23.
49. Santilan A, Palacios E. Actualización en el tratamiento de COVID-19. *Arch Venezol Farmacol Terap.* 2020;39(2):191-194.
 50. Chacón Fuertes F, Fernández Hermida JR, García Vera M. La Psicología ante la Pandemia de la COVID-19 en España. *La Respuesta de la Organización Colegial: Clínica y Salud.* 2020;31(2):119-123.
 51. Cudris-Torres L, Barrios-Núñez A, Bonilla-Cruz N. Coronavirus: epidemia emocional y social. *Arch Venezol Farmacol Terap.* 2020;39(2):309-312.
 52. Bao Y, Sun Y, Meng S, Shi J, Lu L. 2019-nCoV Epidemic: Address Mental Health Care to Empower Society. *Lancet.* 2020;395(10224):37-38.
 53. Ramírez-Ortiz J, Fontecha-Hernández J, Escobar-Córdoba F. Efectos del aislamiento social en el sueño durante la pandemia COVID-19. *Biblioteca Electrónica Científica En Línea.* 2020.
 54. Rivera-Porras D, Bonilla-Cruz NJ, Carrillo-Sierra SM, Forgiony-Santos J, Silva-Monsalve G. Educación para la salud laboral: Perspectivas teóricas desde la intervención. *Arch Venezol Farmacol Terap.* 2019;38(5):540-546.
 55. Ruiz AL, Arcaño KD, Pérez DZ. La psicología como ciencia y profesión en el afrontamiento del COVID-19. *Rev Carib Psicol.* 2020:153-165.
 56. Rodríguez Rodríguez T, Fonseca Fernández M, Valladares González AM, López Angulo LM. Protocolo de actuación psicológica ante la COVID-19 en centros asistenciales. *MediSur.* 2020;18(3):368-380.
 57. Ribot Reyes VDLC, Chang Paredes N, González Castillo AL. Efectos de la COVID-19 en la salud mental de la población. *Rev Haban Cien Méd.* 2020;19.