Review

Impact of COVID-19 Pandemic in Public Mental Health: An Extensive Narrative Review

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Abstract: The Coronavirus Disease 2019 (COVID-19) pandemic has surprised health authorities around the world producing a global health crisis. This research discusses the main psychosocial stressors associated with COVID-19 in the literature, and the responses of global public mental health services to these events. Thus, a consensus and critical review were performed using both primary sources, such as scientific articles and secondary ones, such as bibliographic indexes, web pages, and databases. The main search engines were PubMed, SciELO, and Google Scholar. The method was a systematic literature review (SLR) of the available literature regarding mental health services during the COVID-19 pandemic to conduct the present narrative review. Different stressors are identified in this pandemic, from psychophysiological, confinement, to social and work. Depending on the level of severity and the country of origin, various interventions have been applied that mark different ways of returning to normality and preparing new interventions. This new stressor has a direct impact on the mental health of the population, provoking governments, and health services to become more flexible, innovate and adapt to the changing situation. The use of technology and mass media could be an important tool in this aim. Independent of this, preparing the general population for possible future waves of the pandemic is currently the best measure to mitigate more serious effects on the mental health of the population.

Keywords: COVID-19; pandemic; stress; anxiety; quarantine

1. Introduction

In 2020, the world faced one of the most significant pandemics of the last two generations. Every day around the world, thousands of people are dying, and hundreds of thousands are becoming infected with this new coronavirus characterized by its highly contagious nature [1]. In humans, usually causes respiratory infections that can range from a common cold to severe illnesses such as the Middle East respiratory syndrome (MERS) or the severe acute respiratory syndrome (SARS) [2]. The recent discovered coronavirus (Sars-CoV-2) has caused the pandemic (COVID-19), with greater ratio of mortality and

contagiousness than its predecessors [2–4] However, it is not only the health effects that are of concern regarding the virus and the current pandemic.

The rapid transmission of the virus [5], has left governments and institutions around the world in check, among Asia to Europe, North America, the Middle East, Africa, and Latin America [6–10]. Most of the countries took prompt and promising measures to prevent the contagion from spreading, such as closing borders, pre-emptive isolation, and quarantine [11]. However, despite these measures have slowed down the speed of transmission have also had a severe impact on their economies and societies [12,13]. Economically, the impact on jobs stability [8]; Socially, highlighting and opening a greater gap between class differences and social spectra specially among vulnerable and hidden groups such as ethnic communities, minority groups, immigrants and homeless [8,14–19]. Culturally, highlighting the need for virtualization of educational environments in order to materialize distance education [13], which has remarked inequities in rural and low income areas [20–22].

This impact on health and the social and economic sphere has a direct impact with psychological distress and symptoms of mental illness [23–25]. Despite the existing literature, which may need to be filled in over time through more widespread clinical experience and research, authors are beginning to identify the first mental health concerns related to the COVID-19 pandemic, which are stress, experiencing episodes of anxiety and depression, alcohol consumption, eating disorders, hunger, and uncertainty about the future, among others [26]. Some authors found traumatic experiences related to the loss of friends and family, work stressors, social status, and suffering from COVID-19 symptoms [5]. Conditions such as anxiety, depression, insomnia, or other social problems such as increased acts of gender violence during the lockdown, could increase short term mental health care needs [27–29]. A global pandemic that has caused nearly 10 million people to become infected and more than half a million deaths would probably lead to, like other disasters (e.g., Hurricanes, tsunamis, wars, terrorism), post-traumatic stress disorder (PTSD), insomnia, generalized anxiety disorder and fear [26,27]. Therefore, psychologist and psychiatrist worldwide across the world should be aware of these manifestations, and be prepared for what its believed the "post-pandemic wave", the mental health consequences of COVID-19. In this situation mental health services, conceived as all services that integrate care in the promotion, prevention, treatment and rehabilitation of mental problems and disorders, including psychiatric hospitalization, outpatient consultation, dispensing of drugs for psychiatric and neurological use, are basic to be able to face this new demanding context. Thus, the current review was designed to summarize the existing literature addressing mental health concerns related to the COVID-19 pandemic and the measures taken by governments worldwide.

2. Methods

This study is a narrative review designed to collect published literature and articles regarding mental health services during the COVID-19 pandemic.

2.1. Search Methods and Strategies for Identification of Studies

Protocol was based on a literature search using primary sources, such as scientific articles and secondary ones, such as bibliographic indexes, web pages, and databases. Thus, we used PubMed, Scopus, Embase, Science Direct and Web of Science using MeSH-compliant keywords including COVID-19, Psychology, Mental Health, Coronavirus 2019, SARS-CoV-2 and 2019-nCoV.Articles published from 5 February 2020 till January the First 2021 were used. For inclusion criteria nine review authors screened the titles and abstracts of all retrieved manuscripts, then exclusion criteria were applied if (i) studies used old data (out of the proposed timeline), (ii) had inappropriate topics and were not pertinent to the focused purpose of the study, (iii) were not in English. Extraction of information was performed by the same nine review authors who conducted the study selection. Then,

studies were selected independently, and the results were discussed to make the present narrative review.

2.2. Psychophysiological Stressors in the COVID-19 Pandemic

Psychophysiology is one of the cornerstones of clinical health psychology, and its primary objective is to understand how psychological and social experiences could influence an individual's physiological homeostasis. During the current COVID-19 pandemic, a holistic perspective is needed since isolation measures, fear, uncertainty, economic instability, social disconnection and trust in other people and institutions are becoming new psychophysiological stressors [28]. Fear may be one of the strongest triggers. Fear of contagion, but also fear of the future, of losing their job in professions in which they cannot work from home. Fear of not having enough financial resources to be able to pay their normal bills. Fear of the uncertainty of not being able to see relatives. Fear of how the virus is transmitted. Maybe the worst fear: will I be infected? Will I be infecting my loved ones without knowing it? Will I be part of the asymptomatic population helping the virus to spread? [29]. This stressful and novel situation would lead to psychological consequences in the medium and long term [30].

Physiologically, acute fear may not have negative health implications but when it is prolonged over time, changes occur in the immune and autonomous nervous systems, endocrine function, and level of hyperarousal, in addition to sleep/wake cycle disruption, eating disorders and dysregulation of the hypothalamus-pituitary-adrenal axis [31]. Recent studies suggest how psychological stress may also increase the production of hypothalamic and amygdala corticotropin-releasing hormone (CRH), which has been recognized as a precursor of cortisol production [32]. CRH has been shown to have an impact on mucosal mast cells, increasing the production of inflammatory cytokines and tumor necrosis factor-alpha (TNF-α), which directly affects gut epithelial cells, increasing gut permeability. These physiological conditions do nothing but increase the severity and fatalities associated with the COVID-19 pandemic [33].

Other contextual factors that may increase comorbidities among the population are related to physical inactivity due to an imposed quarantine, which even before the COVID-19 pandemic, was already a major global health problem [34]. Since quarantine is a long-term suppression measure, metabolic syndromes may appear or become aggravated, increasing the risk of insulin resistance, oxidative stress, inflammation, obesity, endothelial dysfunction, and cardiovascular disease [35]. This limitation of movement will lead to more sedentary activities, which authors propose will not only reduce energy expenditure but also increase food intake as these tasks decrease feelings of satiety and fullness, and lead to overconsumption, thus worsening the metabolic effects of sedentary behaviors [36]. In this situation, there is an increased level of pro-inflammatory cytokines and downregulation of hormones such as serotonin and melatonin, which are highly important for maintaining circadian rhythms since night-time melatonin derived from the pineal gland is the primary driver of night-time immune cell dampening which occurs as part of the circadian rhythm [37]. Thus, there should be a particular focus on appropriate behaviors as well as physical and nutritional guidelines adapted to the new situation.

2.3. Social and Work Stressors in the Pandemic

In the fight against the COVID-19 pandemic, until we have achieved herd immunity with an effective and safe vaccine, the behavior of world's population plays a crucial role in stopping the spread of the virus [15]. The current perspective on coping with the pandemic is limited to the impact on physical health and minimizing transmission risks (i.e., masks, social distancing, frequent hand washing). This approach distracts attention from the psychological consequences of social stressors [38]. In this line, authors suggested that most of world's population did not consider confinement to have an impact on general mental health. The inappropriate behaviors of some people (i.e., mass gatherings, coughing without covering their mouths, physical contact . . .) aggravated the Spanish flu

pandemic that led to more than 50 million deaths [39]. Today, mass media and government communication systems could be an excellent way to improve prevention and increase social confidence [40]. However, fake news (e.g., consumption of hydroxychloroquine, sodium chlorite, antibiotics, conspiracy theories) and political power struggles have controlled social networks and TV programs along with the pandemic and, consequently, have increased distrust and insecurity [41–44]. Furthermore, growing concerns about the socioeconomic impact, possible second waves and market uncertainty are major social stressors, and their long-term effect has not been studied yet. The socioeconomic crisis derived from the COVID-19 pandemic could have a significant impact on world gross domestic product, equal to about 20 trillion dollars, with 3 to 15% decreases depending on the country [8].

In addition, the unpredictable global financial consequences and the local socioeconomic impact will have devastating effect on jobs and the socioeconomic balance of individual households. Quarantine, a drop in consumption, business closures and restrictions on tourism have affected the most important stock indices [45,46]. Travel restrictions not only affected jobs related to air transport (i.e., loss of between 25 and 30 million jobs and the bankruptcy of dozens of airlines) but also caused general population consumption dynamics to decrease by 25 to 30% [47]. This abrupt drop in consumption has produced massive job loss, which could be permanent in more than 40% cases. Some multinational companies have advised employees to transfer their work to other productive sectors in anticipation of falls of more than 90% in terms of hiring workers [46]. Several publications have suggested that employment losses and changes to the business world have had devastating effects on mental health and suicides [48]. Job loss was especially traumatic among the most vulnerable populations (e.g., people at risk of poverty, experiencing race or gender-based discrimination, with few academic qualifications) and there are compelling proposals for prevention and protection in terms of physical and mental health requirements [49].

Yet, pandemics rarely affect everyone equally, so official interventions must be properly designed and well-adjusted. Differences in gender (e.g., PTSD, hyperactivation of the arousal system and cognitive disturbances affect females 7% more than males), race or social status demand the same level of intervention during and after the COVID-19 pandemic [50]. Gender violence [51], higher stress levels in pregnant women [52], higher risk of infection among ethnic groups [17], different mortality levels per race [53] and suicides among impoverished social groups [54] encourage new political decisions to look for competent and free interventions in terms of general mental health. Most socially vulnerable people are at risk of considering the COVID-19 pandemic to be a lifetime traumatic experience [55]. Some authors believe that the COVID-19 crisis should be faced from the perspective of trauma, threat, and fear, with special attention paid to young people who are less able to develop positive coping strategies [56]. Additionally, people with fewer academic qualifications, low social status groups, and gender differences must be cared for quickly and adequately to prevent future mental illness [57].

Finally, focusing on the social and working related circumstances of those who are on the front lines dealing with the virus, health workers, they require special attention. Health workers are a high-risk group from a mental health perspective. Early care programs to reduce work stress could help to control PTSD in hospital settings [58,59]. Positive coping strategies, emotional moods, social support, burnout, and personal wellbeing during the pandemic should be studied in-depth in these workers [60]. All those studies would allow the detection, diagnosis and treatment of insomnia, depression, anxiety, burnout, and PTSD cases, reducing undesirable mental health problems in front-line and intensive care unit workers [29,61]. Improving sleep patterns, rest and moods would help in clinical decision-making during critical times such as when there is an influx of infected people and implementing COVID-19 treatments [26]. Hence, an excellent strategy to find the best intervention for mental health must be designed to reduce long term effects on the most vulnerable populations. The main psychosocial and work stressors during the COVID-19

pandemic, such as fear, co-workers' deaths, psychological anguish and frustration due to a lack of effective treatments, produced higher PTSD levels in front-line healthcare workers compared to non-clinical personnel [44].

2.4. Contextualization of COVID-19 Numbers and Measures Adopted Worldwide

The first reported case of COVID-19 was in December 2019 in the city of Wuhan, the capital of Hubei (China). From that point on, confirmed cases spread across the world until the World Health Organization declared it a global pandemic on 11 March. To date, 7.6 million people have been infected with COVID-19, with the United States of America being the country with the most confirmed cases worldwide: more than 2 million (2,032,524). Brazil is the second country worldwide where cases are growing exponentially (828.810). In Europe, at present, there are 2,316,910 confirmed cases: 292,954 in the United Kingdom, 243,209 in Spain, 186,022 in Germany, and 152,067 in France, among others with a high number of cases. Portugal has been included in Table 1 as an individual case since it is next to Spain and has reported less than 37,000 cases [62]. China has reported 84,729 confirmed cases and 4645 deaths. Moreover, while most countries are in the process of easing restrictions, COVID-19 has taken 426,317 lives worldwide, 114,466 in the United States alone, followed by Brazil with 41,828 deaths. In Europe, daily deaths have slowed down but are still considerable. 41,481 in the United Kingdom, 34,233 in Italy, 29,312 France, 27,136 in Spain 8781 in Germany, and 1505 in Portugal [63].

Depending on the socio-economic and cultural circumstances, governments have taken internal actions to tackle the situation and face the "COVID-19 challenge". Without the presence of a vaccinated population, most countries are doing their best to lessen the spread, whether by temporary lockdown, easing restrictions in stages, or carrying out fast and easy-to-take coronavirus tests. Table 1 lists the measures adopted by country to recover normality and at the same time prevent the spread of the disease.

2.5. National Guidelines for Emergency Mental Health Care during the Pandemic

Parallel to the current COVID-19 pandemic is another of psychological origin. To this end, governments are creating documents for national dissemination supporting mental and psychosocial wellbeing in all population groups. The central agencies that generate these guides are the WHO and the Inter-Agency Standing Committee [64], in collaboration with the different governments, making them accessible and relatable to the population. To date, there are two main guidelines for Mental Health and Psychosocial Support for COVID-19, one developed by the 55 states that make up the African Union [65]; and the second, the mental health and psychosocial guide by the WHO including comprehensive clinical and non-clinical information for different population groups [66]. However, countries around the world have developed their own guides and measures, based on the ones above. The principal psychosocial and mental health considerations are as follows (Table 1).

Table 1. Psychosocial and mental health considerations taken by different countries during the COVID-19 outbreak.

Country Or Organization	Advices and General Recommendations							
	Social Distancing and/or Isolation at Home	Find Reliable Sources of Information	Minimize the Exposure to the Media to Avoid Anxiety	Avoid Referring to People with COVID-19 in Pejorative Terms	Recommendations for the Psychosocial and Physical Care of Children	Recommendations for the Psychosocial and Physical Care of People with COVID-19	Recommendations for the Psychosocial and Physical Care of Health Personnel	Recommendations for the Psychosocial and Physical Care of Caregivers of Children and People with Disabilities
WHO [64]	Yes. Contacts should be quarantined for 14 days from the last time they were exposed to the patient. When quarantine or isolation is not possible, emphasis should be on restriction of contact with others and limitation of movements outside of home. This applies to all populations including refugees and migrants, without discrimination.	Yes	Yes. Mechanisms used to communicate on COVID-19 prevention and control measures should be consistent and engage with media, public health and refugee and migrant community-based networks, local government, workers' organizations, trade unions and NGOs	Yes. Accurate and timely evidence-based information should be provided on the possible impact of COVID-19 outbreaks in refugee, migrant and host communities. This information should seek to dispel fears and misperceptions among host populations regarding refugees or migrants and COVID-19 outbreaks	Yes. Mental health and psychosocial support and occupational health; and other public services such as housing, water and sanitation, education, gender-based violence, social and child protection services.	Yes	Yes. Refugee and migrant workers should have equal access to mental health and psychosocial support and services in the workplace including personal protective equipment as well as to COVID-19 prevention, treatment and care, referral, rehabilitation and social protection. This should include sick leave for occupationally acquired infections according to national policy and guidelines Guidance on workplaces for COVID-19	Yes

Table 1. *Cont.*

Country Or Organization	Advices and General Recommendations							
Inter-Agency Standing Committee [64]	Yes. Screening, isolation and treatment facilities and other services established as part of the COVID-19 response are accessible to people with disabilities, including those living in remote or otherwise disadvantaged locations.	Yes. All information must be provided in multiple accessible formats, to reach people with visual, hearing and intellectual disabilities. Accessible formats can be used across all forms of media and include sign languages, Easy Read, plain language, audio, captioned media, Braille, augmentative and alternative communication.	Yes	Yes	Yes	Yes. Ensure that existing mental health and psychosocial support (MHPSS) services can continue; and that those developed as part of the COVID-19 response should not reproduce discrimination and are accessible to and inclusive of persons with disabilities	Yes	Yes. Present all your content translated into more than 20 languages
United Kingdom [65]	Yes. Specific recommendations to reduce the risk of catching or spreading coronavirus for general population at home including children or person with a disability or health condition.	Yes	Yes. It is recommended to people try to manage difficult feelings managing media and information intake—24-h news and constant social media updates can make you feel more worried. Focusing on a favorite hobby, learning something new or timing to relax	No	Yes. It is recommended key actions such as Listening to and acknowledging their concerns, providing clear information about the situation, being aware of your own reactions, support safe ways for children and young people to connect with their friends	Yes. Includes tips for taking medications correctly	Yes. It includes a national 24/7 line to attend to cases of health professionals and a website	Yes. There is a specific guide for the care of children and adolescents
Italia [64]	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

Table 1. *Cont.*

Country Or Organization	Advices and General Recommendations						
España [63]	Yes. It is recommended to keep at least 1.5 m distance between people	Yes	No	No	Yes. Explain what is happening with words appropriate to their age and without adding fears. Listen to their concerns and answer their questions. Make sure they are not receiving information on the subject for too long. Remind them that it is temporary.	Yes	No	Yes
Canada [65]	Yes. Recommend practicing physical distancing, but stay connected	Yes	Yes. Recommend staying informed but take breaks from social media, watching, reading, or listening to news stories	No	Yes. Concern about your children's education and wellbeing	Yes. Recommend caring for your mental and physical wellbeing	Yes. The national 911 line offers immediate support and can be accessed by text message. There is a special line for children and adolescents where confidentiality is guaranteed	Yes.
USA [63]	Yes. Recommendations for what a person can do to keep COVID-19 out of their home and what they can do to prevent it from spreading inside the home	Yes	Yes	Yes	Yes. Cdc published the 'COVID-19 Parent Resource Kit' to ensuring the social, emotional and mental well-being of children and young people and advice for caregivers in non-healthcare settings	Yes	Yes. CDC presents recommendations for Cope with Stress and Build Resilience During the COVID-19 Pandemic	Yes

Table 1. *Cont.*

Country Or Organization	Advices and General Recommendations							
Colombia [63]	Yes. The Colombian Ministry of Health presented a series of recommendations for coexistence and mental health that the entire population should follow at home during the days of the COVID-19 outbreak: Be empathetic with others. Heed the indications of social isolation, self-care and solidarity. Find out only from official sources and truthful media. Have a routine at home. Take care of your sleep and food. Take advantage of the time with a physical activity at home. Stay in touch with your loved ones and friends. Ask for emotional support if you need it. With children and adolescents, he uses games and stories to explain the need for social isolation. In older adults, we must maintain self-care routines, provide calendars and clocks, and avoid immobility. Recognize that this is a chance to face adversity and be resilient.	Yes	Yes	No	Yes	Yes	Yes	Yes

Table 1. *Cont.*

Country Or Organization	Advices and General Recommendations							
Chile [63]	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Members of the African Union (55 countries) [65]	Yes. The document provides messages for people in quarantine and isolation centers: Anticipate your needs and make adequate provisions, stay connected and maintain your social network, pay attention to your own needs and feelings, avoid information overload	Yes. The document provides recommend keeping encouraging yourself by the existing positive information from reliable sources	Yes	Yes. The guide invites you to honor caregivers and healthcare workers	Yes. The document recommends: Discuss COVID-19 with your children in an honest and age-appropriate way, help children find positive ways to express feelings, keep children close to their parents and family	Yes	Yes. The document provides this message: Focus on the actions that are within your control, take care of your physical and mental health, maintain a source of social support, know how to provide support to people who are affected by COVID-19 and know how to link them with available resources, be aware of where and how to access MHPSS services.	Yes
China [4,50]	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Singapore [63]	Yes	Yes	Yes	No	No	Yes	Yes	No
Australia [63]	Yes. Covid-safe Australia recommends all the people must continue to practice physical distancing and good hygiene, and stay at home if you are sick.	Yes	Yes	No	Yes. Following the lifting of lockdown measures in Australia, children are allowed to go to school, unless they are sick	Yes	Yes	Yes

2.6. Clinical Services in the Care of Mentally Ill Patients during the Pandemic

The health emergency caused by COVID-19 has revealed that looking after mentally ill patients is a challenge, leading mental health centers to reorganize and look for new ways to care for this population [67]. The layout of mental health areas in hospitals is very similar worldwide. Patients are hospitalized, sharing common areas such as a bedroom, dining room, social, bathroom, and sitting room, which increases the risk of infection. Furthermore, their limited awareness regarding self-control and self-care due to their mental condition hinders taking appropriate measures to prevent them from being infected [68].

Regulation barriers in the use of remote medical care have been reduced because of the closure of psychiatric services to deal with COVID-19 patients, allowing health systems from most countries to offer remote medical and health consultations (Table 2).

Table 2. Implemented actions in mentally ill patients and psychiatric services against the COVID-19 medical emergency [4,14,50,55].

City/Country	Implemented Actions
Lombardía/Italy	Closure of level II and III of outpatient's department. Implementation of telemedicine. Active revision of medical records from severe mentally ill patients to identify those with greater risk of getting COVID-19
United States	Implementation of telehealth across the country. Telephone service or video calling for psychiatric emergency services. Rapid tests for possible psychiatric admission. Differentiation of COVID-19 hospitalization services for patients with positive or negative COVID-19 diagnosis.
China	The approach to nosocomial infections in institutions that provide mental health services was suggested, reducing hospital stay. To provide appropriate treatment for COVID-19 positives mentally ill patients. Treatment management and community care for severely mentally ill patients staying at home by the local health system. Reduce outpatient visits in psychiatric health services
Australia	Reprogramming scheduled appointments for telemedicine Face-to-face patient reviews in mental health services were limited to clinically high-risk patients. Allocation of specific rooms for on-site attention
Madrid/Spain	They adopted more than 60% of mentally ill patient beds to attend positives in COVID-19 Mentally ill patients were allocated in private clinics for continuity of care. Local policies designated psychiatric emergencies as essential services so health workers could provide call care from home.
Lebanon	Promotion and mitigation of stressors related to COVID-19 Provide mental health support to people during quarantine in hospitals, homes and in their families Mental health support for health personnel and first responders National Mental Health Campaign to Address Mental Health Stigma
Egypt, Kenya, Nepal, Malaysia y New Zealand	They increased the emergency telephone line's capacity to reach mentally ill patients.
Bahamas	Developing and distributing materials to promote coping strategies Extending operating hours for mental health helplines Re-activating two Creole-speaking helplines Increase access to tele-mental health services to high-risk populations
Pakistan	Mentally ill patients who assisted in economic empowerment centers tailored fabric facemasks for their community caregivers.
Nigeria	Nigerian Psychiatric Association, Psychiatric Nurses Association, health workers, and the main mental health NGO came together with the government and society to provide teletherapy and mental care.

2.7. The Effects of Confinement at a Psychological Level in Society

Now, society faces the challenge of understanding and handling the different consequences of this pandemic. Social distancing is being practiced in several countries as one

of the best tools to avoid being exposed to the virus and slow its spread. However, keeping physical space between one another and being able to maintain emotional bonds have been some of the biggest challenges of the last few decades, having a direct impact on global psychological health [69].

In China, citizens reported a moderate to severe impact of the pandemic on their mental health and approximately 33% of those interviewed presented severe anxiety symptoms [70]. Previous studies on contagious diseases such as SARS or Ebola showed how individuals suffer from social and psychological complications even after recovering physically from the disease. Being confined during the pandemic, especially for more than ten days, could have adverse effects on mental health, particularly on children who become less active and tend to spend long periods of time in front of screens with irregular sleep patterns and poor diets which have had an impact on weight and cardiovascular problems [71]. Consequently, school closures, restrictions on standard children's games and loss of a friend's touch may have a negative impact on children and teenagers, due to the loss of emotional contact [72]. Additionally, children exposed to quarantine have a higher possibility of developing acute stress, adjustment disorder and pain [73]. During the quarantine, some stressors may impact individual behaviors such as its duration, fear of infection, frustration, boredom, a shortage of essential supplies, and inadequate news. Likewise, finances and social stigma are two factors that will be significant after confinement as well [45].

Individuals in quarantine may show despair, insomnia, drug use and self-harm. Similarly, safety measures consistent with the public health measures taken to face the pandemic might result in obsessive compulsive disorder [3]. Regarding the use of psychoactive substances, it was found that a better psycho-emotional state and lower consumption of psychoactive substances was related to fewer quarantine restrictions and self-confinement [74]. Being in quarantine involves losing daily routines and has a substantial effect, especially in mentally ill individuals or even in athletes [75]. Within families, stress and anxiety levels in parents significantly increase and colliding roles highlight the need to improve psychological flexibility for another potential confinement [76]. Additionally, the economic implications exert pressure on many families, representing a severe threat to mental health and facilitating an increase in mental health, drug abuse disorders, suicidal behavior and domestic violence [73].

Healthcare personnel in the pandemic are exposed to PTSD, depression, anxiety, and exhaustion [77]. Quarantine has been associated with avoidance behaviors, such as minimizing direct contact between individuals and patients and work absenteeism, which has been associated with a feeling of monotony, disappointment, and irritability [45]. Additionally, confinement may quickly develop into a new mental disorder and exacerbate those already suffered, with the most common psychopathologies being depression, anxiety, panic attacks, somatic symptoms, self-guilt, PTSD, delirium, psychosis, and suicide [78]. Individuals with reduced social skills might relapse on their treatments due to the quarantine, which could reduce their self-sufficiency and self-confidence [79–83].

It is worth mentioning that every crisis provides an opportunity for growth, and it is expected that after the initial transition phase, some external stressors may disappear; by managing the challenges of this pandemic, families may strengthen their feelings of belonging and cohesion. Moreover, the feeling of control over the current situation might contribute to personal growth, promoting individual skills, and acting as a protector for future stressors. However, this may vary from one individual to another, based on environmental influences, external factors, social media, social support, personality, and their approach to facing confinement challenges. After the pandemic, social understanding is essential to survive and develop new methods of social interaction, avoiding social contact. All of these are just a few of the challenges that society might face when coming out of confinement.

2.8. Preparing for a Return to Normality

In the last 30 years, globalization has made it easy for pathological agents to spread [84–86]. This has made containing infections more complex, which has had a significant economic, political, and psychosocial impact, leading to urgent challenges for public health [87]. One recent disease that has had significant geographical transmission is HIV, while Zika and SARS have had medium transmission, and Ebola is contained but spreading based on its high fatality rate. However, none of them have presented a challenge like the one we are currently facing with COVID-19 [88]. A potential explanation for this high transmission rate in just a few weeks compared to other transmissions is questionable or inaccurate information about the virus' transmission, incubation period and geographical scope, as well as the number of infections, and mortality rate. All this has contributed to fear and insecurity in the population. Unfortunately, social media opinions underestimating self-care measures or social distancing, promoting questionably effective or even harmful treatments (such as taking chlorine dioxide or drinking medicinal herbs) and rejecting the magnitude of the possible effects of COVID-19 on confirmed cases, caused a rapid spread of the disease in countries like the United States, Brazil, Spain and the United Kingdom [89].

The epidemiological situation has been extreme due to the insufficient control measures on new cases and the lack of effective therapeutic mechanisms [90]. The majority of the world's major economies (Western Europe and Southeast Asian countries like China, Japan, South Korea, and Oceania) have been able to contain the rapid spread of the infection temporarily and have a positive impact on morbimortality related to COVID-19. However, the economic and social cost to their economies and the psychosocial impact on their societies has been tremendous. Corruption, misinformation (including fake news) and a lack of discipline in society regarding self-care and social distancing represent the variables that foster COVID-19 proliferation in less economically developed countries, especially in Latin America, with direct implications on the population's daily life and mental health [45]

Considering that the economic costs related to mental disorders are high, improving mental healthcare strategies could lead to high profits in both physical health and the financial sector. In addition to the fear of death, the COVID-19 pandemic has implications in other areas: loss of interaction with family and friends, closure of schools, companies, and public places, changes in work practices, unemployment, isolation leading to feelings of powerlessness and neglect. Other especially vulnerable groups during pandemics are the elderly living in care homes, immunocompromised people, patients with previous illnesses, the families of confirmed cases, and residents in areas with a high incidence of the disease [68]. Unfortunately, in these groups, social rejection, discrimination, and even xenophobia is frequent. In some countries, there is a perception of insecurity and widespread increase in social protests, as is already happening in the United States and some European countries, due to the population's profound discontent because of the economic and social impact of this large-scale tragedy.

A return to normality post COVID-19 is a desirable event for the world population, even those that have not been severely affected by the disease but have had to restrict their citizens' mobility s to a large extent and confine many of them to their homes to prevent disease transmission, especially children and the elderly. In June 2020, the most populated countries in Western Europe (Germany, France, United Kingdom, Italy, and Spain) are getting ready for a gradual deconfinement process and return to normal activity (although inevitably accompanied by social distancing measures). This process will be followed by uncertainty as a vaccine has not been developed yet and pharmacological treatment and mechanical ventilation are showing high mortality rates. Additionally, it is not clear whether a recovered patient could become infected again, infect others, and pass the virus along. As previously described, European countries (and the United States to some extent) which were initially the epicenter of the disease have been replaced by countries with a weaker medical infrastructure (doctors, nurses, personal protection equipment with gloves and masks, availability of antivirals, ICU beds, and ventilators) and less economic resources

to face the crisis. The world seems to be adapting to the idea of leaving behind the crisis (the term 'second wave' already exists) and going back into confinement if COVID-19 collapses our medical system again: meaning humanity must learn how to live with the minotaur until we can confine or destroy it.

From the beginning of the COVID-19 pandemic, multiple opinions have been given about the possible consequences in post-pandemic times. The pandemic has caused a crisis in healthcare systems by introducing tensions that have highlighted that they were not ready to face the significant challenges, not only for public health and health sciences but also for world society. Mental health systems are not an exception, the scale of this challenge to face the pandemic affects a world where insecurity is predominant, in which the psychosocial effects of loneliness due to social distancing and isolation, fear of getting the disease, financial pressure and uncertainty about the future are the main challenges [85,86].

Thinking of a return to normality after the COVID-19 pandemic may be impossible until an effective treatment is available, and a vaccine is safe to use. At present, we are learning from the changes caused by social, cultural, and human life which compromises mental health to approach a new everyday life after the pandemic has ended. This context should be of use to find out specific vulnerabilities, obtain clear answers from key points in them, and not relapse in the event of another catastrophic event. This is the only way to prevent the disease from rising again soon and avoid global economic, social, political, and cultural effects. What is clear is that after forcibly shutting down societies, there are more disadvantages than solutions, exacerbating the current crisis. Public mental health policies and response strategies against epidemics and pandemics need to be implemented before, during, and after the event. Mental health workers, like psychologists, psychiatrists, and social workers, should be on the front line and play a leading role in emergency management and planning. They should have health and social protection measures (against physical and psychological aggression in and out of their workplace, employment stability and punctual salary payment) to perform their job in a meaningful manner [91]. Assistance protocols, like those used in catastrophes, should cover relevant areas for both the individual and collective mental health of the population. The possibility of designing specific clinical pathways to promote appropriate and equal medical assistance and treatment should be explored. It is vital to keep the population informed about self-care and social distancing measures to avoid them blaming society for the increase in the number of COVID-19 cases and overcrowded hospitals because it could lead to class segregation and racism. To meet these mental health challenges and get back to normal, the psychosocial recommendations published by the WHO, CDC, and the NHS, among others, should be considered (Table 3). Since psychological factors are directly correlated to world morbimortality and the COVID-19 virus outbreak, and that the latter will be present for some time, simultaneously, there is a need for increased investment in research and strategic actions to be taken to improve mental health.

Table 3. Mental health recommendations during the pandemic.

Government Actions	
To foster multidisciplinary teams in mental health at a national, state-wide, and local level.	Monitoring and refute fake news. Even reporting them to remove them.
Training in stress management, trauma, depression, and risk behaviors (for example, mhGAP guide to managing emergencies from WHO)	To foster scientific investigation in universities and development centers.
Training healthcare personnel in pharmacological management in mental health.	To consider and to respect cultural factors when implementing public policies.
To ensure the availability of appropriate resources and infrastructure for mental health services.	To avoid blaming society irresponsibility as the main cause of the COVID-19 outbreak.
To ensure psycho-educative resources affordable to the general public and non-specialized personnel in mental health	Do not expose in social media or the news people violating social distancing measures.
Authorities must establish official channels to inform about COVID-19 and mental and physical self-care. Social media could be useful such as Facebook, Instagram, WhatsApp (bots).	To collect epidemiological data to support the prevention and development of mental health future policies.

Individual recommendations	
Social distancing and home isolation	To limit the exposure to stressful news related to COVID-19 even if they are true
To pay attention to the needs, feelings, and thoughts, especially those about anger, irritability, uneasiness, and sadness.	To maintain adequate patterns in sleep, nutrition, and exercise.
Do not publish non confirmed information by official channels or unreliable.	To understand that stress and fear are normal in unknown situations.
Considerar el posible impacto de las medidas individuales en la salud de las demás personas	Establecer una red de soporte (incluso si es virtual)
To maintain the use of drugs according to medical prescription.	To avoid mistaking confinement solitude with abandonment, depression, or rejection.

Special groups care	
Children: Top play in funny activities with the family (games and readings). To explain the COVID-19 situation clearly and easily. To try to keep a routine. To show the kids how to express their feelings even if they are negative. To control the amount of information on COVID-19 reaching the kids.	Populations in risk that require quarantine (immunosuppressed, older adults, kidney patients): To avoid transmission of COVID-19, to be in touch with them personally and if possible, or through phone calls or social media. To be available to give a hand in a task where there is some kind of risk (for example, to do the shopping at a supermarket). To help them adhere to the medical treatment regime and to provide emotional support.

Hospitals and clinics	
To establish a contingency plan and strategies to deal with the most severe psychiatric symptoms	To establish a transparent and trusting relationship with employees both administrative and clinicians and prioritize equality and wellbeing.
Bring medical and psychological assistance to risk exposed teams.	To guarantee mental health assistance to family members affected by the virus.

2.9. Preparing for Future Interventions

The World Health Organization has recommended strategies to all countries to slow the spread of the virus and decrease mortality due to COVID-19, until a safe and effective vaccine is ready, as well as mental health management and psychosocial support. These strategies cover the continued mobilization of all government sectors and society to prevent new cases; controlling sporadic and group cases; containing community transmission and reducing mortality through adequate healthcare provisions [64]. However, one of the primary short-term interventions is to develop the abovementioned safe and effective vaccine [92]. Regarding mental health, the coverage of basic needs to prevent potential mental health damage, risk communication, strengthening support networks, primary mental health care and the continuation of health services were postulated as the main actuations.

Possible scenarios of SARS-CoV-2 transmission with no pharmacological interventions during the post-pandemic period depend on factors that include a seasonal variation in transmission, length of immunity, and the level of cross-protected immunity between SARS-CoV-2 and other coronaviruses, as well as the intensity and duration of control strategies [93]. A resurgence of the virus is possible after the initial pandemic wave, which could cause prolonged or intermittent periods of social distancing in the coming years, increasing the psychological pressure on families, patients with a pre-existing medical or mental health condition, healthcare professionals and society in general [94].

Epidemics have individual and collective psychosocial impacts that could have a greater effect than the pandemic itself [86]. During the current COVID-19 pandemic, high levels of anxiety have been documented, as well as stress, depression, insomnia, anger, and fear in society, especially within the most vulnerable groups [3]. However, more research is required to generate sufficient and consistent evidence on the impact of the COVID-19 pandemic and future outbreaks of the disease to develop psychological interventions that could improve the mental health of the population [95].

It is important to prioritize mental health care according to the life cycle (children, older adult, adolescents), people with pre-existing mental pathologies, gender, ethnicity, migration, people in street condition, deprivation of liberty, hospitalized patients, and people with chronic pathologies. Interventions should be aimed at meeting needs according to each group at risk identified and within the framework of the public health strategies implemented by each country according to the stage of the pandemic in which it is located [96].

Risk communication should be one of the key axes in addressing future health events, as a basis for promoting inclusion and discouraging discrimination against infected people and frontline workers; by strengthening health communication campaigns, which will support medical interventions, such as vaccination. In addition, the preparation of health teams in post-pandemic interventions will be necessary due to the long-term disregard for the effects on mental health, resulting in contagion and isolation; it is also important to ensure the protection and training necessary for their work, as well as the care of their own mental health, avoiding additional overload in them [97–100].

The concertation and strengthening of Community support strategies, generating integration of community epidemiological surveillance with the benchmarks of services in general health and mental health. The updating of management protocols for pandemic mental health care, considering scientific evidence, as well as using the guidelines already established by WHO and different government bodies, considering that interventions must respect the adaptation of each guide according to the sociocultural context.

Government and society must continue to implement and improve actions to promote multidisciplinary mental health teams generating greater investment in mental health promotion and prevention, considering that this is not a secondary factor and that addressing it from prevention should be one of the main goals in public health policies, the use of technology (telepsychiatry) and the internet to provide sufficient resources and adequate facilities, create a service network or reinforce those already created for society mental healthcare, identify vulnerable groups within a population that are at high risk of suffering

from psychological morbidity, and encourage scientific research to provide evidence-based interventions and also strengthen the mental health policy [101–104]. This is how primary care in face-to-face or remote mental health must arrive to stay, adapting existing means to continue services, facilitating access to mental health care, as well as the continuation of pre-existing treatments, to avoid referrals for treatment continuity gaps and as one of the main strategies of health services. In addition, special attention must be paid to mental health professionals, since the first wave of COVID-19 showed a high degree of burnout in this collective [105–108].

3. Conclusions

We are currently in one of the crises requiring the most action in recent decades. This new stressor has a direct impact on the mental health of the population, provoking governments and health services to become more flexible, innovating and adapting to the changing situation. The use of technology and mass media could be an important tool in this aim. Independent of this, preparing the general population for possible future waves of the pandemic is currently the best measure to mitigate more serious effects on the mental health of the population.

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