Review Article

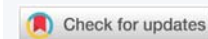# Implications on mental health by the coronavirus disease 2019 (COVID-19) pandemic: The role of general practitioner

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Abstract

Coronavirus disease 2019 (COVID-19) pandemic gives rise to a significant number of psychological consequences and health problems. The GP must recognize the feelings generated in their patients and address them. This task includes 4 areas: 1. Knowing and managing the epidemic of anxiety and fear in patients; 2. Assessing possible de-compensation of patients with previous mental problems; 3. Knowing and managing effects of quarantine and social distancing; and 4. Knowing and managing possible truncated mourning. The recommendations for GPs intervention are: 1) In the clinical interview (identify maladaptive thoughts and emotions; comprehensive health); 2) Health information (clear, evidence-based communication); 3) Health education (healthy behaviors); 4) Telecare (support, monitoring and attention over the phone, via WhatsApp or video calls); 5) Crisis interventions (psycho education, cognitive behavioral techniques or referral to specialist); 6) Bibliotherapy (free electronic copies for the public); 7) Special efforts directed at vulnerable populations (infected and sick patients, the elderly, with a compromised immune function and those living or receiving care in congregated settings and people with adverse medical, psychiatric or with substance use problems, their families and caregivers); 8) Psychosocial monitoring (stressors related to COVID-19: exposures to infected sources, infected family members, loss of loved ones and physical distancing, secondary adversities such as economic loss, psychosocial effects such as depression, anxiety, psychosomatic concerns, insomnia, increased use of substances and domestic violence, and vulnerability indicators such as pre-existing physical or psychological conditions); and 9) Follow-up of the "complicated" mourning ("accompaniment" and transmit compassion, love and affection).

"… There were innumerable such-like cases… that may well be called frighted to death. But besides those who were so frighted as to die upon the spot, there were great numbers frighted to other extremes, some frighted out of their senses, some out of their memory, and some out of their understanding…

… As the desolation was greater during those terrible times, so the amazement of the people increased, and a thousand unaccountable things they would do in the violence of their fright… Some went roaring and crying and wringing their hands along the street; some would go praying and lifting up their hands to heaven, calling upon God for mercy…

…I have heard also of some who, on the death of their relations, have grown stupid with the insupportable sorrow…"

A Journal of the Plague Year, by Daniel Defoe

The current outbreak of coronavirus disease 2019 (COVID-19), caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which was first detected in Wuhan, China, in December 2019, continues to spread affecting many countries and territories around the world, and WHO having declared it a pandemic on March 11, 2020 [1,2]. Its figures are rapidly changing, and when this is written, as of April 12, 2020, the pandemic has infected more than 1,800,000 people and killed more than 110,000 worldwide. But while in China it begins to normalize the movement of citizens, the pandemic strikes Europe and North America with particular virulence: the United States, Spain and Italy are the countries with the most diagnosed cases and the highest death toll. The United States has more than 530,000 cases, followed by more than 166,000 in Spain, and more than 152,000 in Italy, which have overtaken China in the total number of COVID-19 cases [3].

So, the COVID-19 epidemic is a public health emergency of international concern and poses a challenge to psychological resilience [4]. With the increasing number of infected cases and deaths, many patients experience physical suffering and great psychological distress [5]. The current health emergency situation and state of alarm derived from the pandemic declared by the COVID-19 outbreak, is significantly influencing the emotional state of the entire population, leading to alert behavior, fear, concern, etc. Although alertness can help to increase personal and group coping mechanisms, however if the fear is excessive, it generates negative psychological reactions, not very effective on a personal and social level, which can trigger anxiety disorders and depression, among others [6].

According to treatment guidelines, patients with COVID-19 should be treated in isolated infectious hospitals. In this way, due to social isolation, perceived danger, uncertainty, physical discomfort, drug side effects, fear of transmission of the virus to others, and overwhelming representation of negative news in media coverage, patients With COVID-19 they can experience loneliness, anger, anxiety, depression and insomnia and symptoms of post-traumatic stress that could negatively affect the social and occupational functioning of individuals and the quality of life [5]. Furthermore, in this entire context, psychological stress, especially indirect trauma caused by the COVID-19 pandemic, should not be ignored, all of which, together, strongly impacts global health and mental health [7,8].

In this situation, care providers, especially general practitioners (GPs) as a gateway to the healthcare system and responsible for initial diagnosis and continuity of care, should be aware of mental health disorders and symptoms, and particularly in individuals with previous psychiatric diagnoses. In COVID-19 pandemic, GPs working in the community are engaged in diagnosing and treating patients, educating the public and guiding the community in the fight against the outbreak. The main challenges for all healthcare providers, but for GPs in particular, are the overwhelming numbers of patients, the adverse working conditions — including exposure to infectious risks, the uncertainties and unknowns about the trajectory of the disease, and coping with fears and panic among the population. For GPs, the challenges do not end there: the continuity of care and treating the whole person rather than the single disease are essential inputs by GPs to lead the community to the path of recovery [9].

Research data and conceptual elements are needed to develop strategies to reduce adverse psychological impacts and psychiatric symptoms during the epidemic. In this scenario, this article, which is a personal vision, based on an unsystematic or opportunistic search for information and the author's experience, aims to summarize and systematize the impact of mental health as a consequence of the COVID-19 pandemic, the role of the GP and the possible interventions at its healthcare level.

Discussion

Although studies related to psycho-social effects and mental health in patients with COVID-19 are comparatively few compared to those related to strict biological effects and their treatment, several authors highlight that it is possible to more or less predict the expected consequences in the mental health of the most vulnerable parts of the population. And in any case, it is evident that COVID-19 gives rise to a significant number of psychological consequences [8,10].

What started as a small outbreak in Wuhan, China, quickly turned into a global pandemic, sending fear and panic across the globe and inciting world leaders to institute broader border bans, block entire countries, and restrict outdoor activities and institute a degree of social isolation preventing person-to-person contact. This is all part of extreme measures to control the spread of COVID-19. The larger the scale of the outbreak, the greater the impact and the greater the fear and imposition on the psyche, as has been shown in previous epidemics: since Ebola virus disease and avian influenza, epidemics were known to lead to behavioral and mental health disturbances [11]. So, this outbreak of COVID-19 is leading health problems such as stress, anxiety, depressive symptoms, insomnia, denial, anger and fear globally [8]. The effects of outbreaks of any significant magnitude can be multiple, but their effect on the psyche can be profound and durable. These include a potential to exacerbate existing illnesses or precipitate new mental illnesses [11,12]. Anxiety and fear are normal reactions to generalized infections like COVID-19 [13].

The following elements could be conceptualized regarding the effects of COVID-19 in relation to the GP's work:

1. New starting symptoms of mental illness: adjustment difficulties, depression y anxiety.

2. Increase in existing conditions: Exacerbation of existing mood and psychotic or addictive disorders.

3. Effect on caregivers and friends / family: Depression, anxiety, stigma, shame, etc.

These elements imply certain levels of GP performance. In any case, the GP must recognize the feelings generated in their patients by the COVID-19 epidemic and must address them. The GP should ask about the mental health of all patients as COVID-19 spreads and fear increases. Managing emotional health during crises will help people take better care of them and protect their loved ones from infection. Thus, there are four areas of involvement of the GP, which involve different approaches (Table 1):

1. Knowing and managing the epidemic of anxiety and fear in your patients

2. Assessing possible de-compensation of patients with previous mental problems

Table 1: Initiatives of the gp to promote an appropriate psychological address in COVID-19.

Initiatives	Content
1. Clinical interview	Identify maladaptive thoughts and emotions that interfere in the resolution and adequate coping of problematic situations and crises to improve their management; take into account the concerns and uncertainties of patients in the face of the pandemic; Acquire, develop and put into practice a concept of integral health, where the biopsychosocial components of it have a place; Show adequate interpersonal communication and emotion management skills for effective interaction with patients, relatives and caregivers in the processes of problem identification, evaluation, communication of diagnosis and psychological intervention and monitoring.
2. Health information	At first, people need explanations about what was happening, and hear messages of reassurance. Clear, evidence-based communication is critical to manage public fear. Uncontradictory messaging based on the best science will improve compliance and effectiveness of voluntary self-isolation, and other voluntary social distancing measures. Rumours can fuel fear and anxiety. Knowing the facts can help.
3. Health education	Means to reduce the effect of COVID-19 on mental health include persistent healthy behaviors and maintaining a strong support network. People should do enjoyable activities and only check for factual updates on COVID-19 at limited intervals. Daily routines that incorporate a healthy lifestyle, hobbies, virtual social interactions, and mindfulness are recommended. and maintain healthy behaviors, particularly sleep.
4.-Telecare	GPs can remotely monitor people at risk (those predisposed to mental illness and vulnerable groups) to provide additional support. Telephone and via WhatsApp support is one of the alternatives. In short, to continue caring for patients over the phone or video calls.
5. Mental health crisis interventions	Some patients will need a referral for formal mental health assessment and care, while others may benefit from supportive interventions designed to promote wellness and improve coping (such as psycho education or cognitive behavioral techniques). In light of the growing economic crisis and the many uncertainties surrounding this pandemic, suicidal ideation may arise and require immediate consultation with a mental health professional or a referral for possible emergency psychiatric hospitalization.
6. Bibliotherapy	Several COVID-19 books on mental health prevention, control, and education have been quickly published and free electronic copies can be provided to the public.
7. Special efforts directed at vulnerable populations (with are at higher risk of poor psychosocial outcomes)	Elderly, people with compromised immune function, and those living or receiving care in crowded settings and people with adverse medical, psychiatric, or substance use problems. This includes 1) infected and sick patients, their families and colleagues; and 2) individuals with pre-existing physical or mental conditions. Interventions and community psychological support may have some effect in reducing symptoms of posttraumatic stress disorder, depressive and anxiety symptoms in adults during these stressful events.
8. Psychosocial evaluation and monitoring	Stressors related to COVID-19 (such as exposures to infected sources, infected family members, loss of loved ones and physical distancing), secondary adversities (economic loss, for example), psychosocial effects (such as depression, anxiety, psychosomatic concerns, insomnia, increased substance use and domestic violence) and vulnerability indicators (such as pre-existing physical or psychological conditions).
9. Follow-up of the "complicated" mourning	Monitoring these people is important. The GP must be alert to the fact that the situation of isolation will create "complicated mourning" because farewells cannot be done correctly due to remoteness, the inability to hug the sick and, ultimately, the rituals that help family members, such as power celebrate a funeral. The first step for the patient is to accept that the situation is like this. In situations of agony or pre-agony, in which a single family member can accompany the patient, this familiar can represent all the others. One solution may be to establish a video call so that the rest of the family can carry out an "accompaniment" and transmit compassion, love and affection. The more funerary rituals, recognitions that help us to mature the mourning, will have to be done later.

3. Knowing and managing effects of quarantine and social distancing

4. Knowing and managing possible truncated mourning

Knowing and managing the epidemic of anxiety and fear in patients

Research shows the common association between virus outbreaks and mental health problems. Ebola virus disease and avian flu pandemics caused panic and hysteria worldwide and were significantly related with increased risks of anxiety and depression and post-traumatic stress disorder [14]. Interestingly, people tend to exaggerate with more familiar threats like the flu, where even though there is a significant death rate, mortality is lower compared to COVID-19. However, people become more anxious and fearful with unknown threats like COVID-19. And fear of the unknown leads to a higher level of anxiety in both healthy people and those with pre-existing mental health problems. People's emotional responses are likely to include extreme fear and uncertainty, and negative social behaviors will often be driven by fear and distorted perceptions of risk [8,11,15,16].

In recent months, following the outbreak of a new coronavirus infection (COVID-19) on December 31, 2019 among humans in Wuhan, China, an increasing amount of information and concerns are impacting global mental health.

The world media, local and international health organizations, epidemiologists, virologists, opinion makers, telephone text messages, social networks, etc. publish information, recommendations and minute-by-minute updates on the spread and lethality of COVID-19 [7].

Of course, anxiety can arise out of fear of contagion and around the patterns of social estrangement, but it is often worsened by the media, which increases confusion and fear-mongering. It is admitted that during each community crisis those subjects who received contradictory information present much higher levels of acute stress [17,18]. Other factors are concerns about exposure to the virus on public transport when going to or from work, concerns about reduced working time and subsequent deprivation of expected income, etc., which may explain the high level of stress. The levels of psychological distress are also influenced by the availability of local medical resources, the efficiency of the regional public health system and the prevention and control measures taken against the epidemic situation [19].

In Wuhan, China, after the first days of panic, the situation stabilized. But, the extension of strict confinement to the city's 11 million people transformed initial feelings of terror into the unknown into calls for help from people who declared themselves unable to control their anger, sadness, depression, or suicidal thoughts. A study found in February 2020 that 43%

of 18,000 Chinese citizens tested gave symptoms of COVID-19 related anxiety. And, 17% of 14,000 examinees showed signs of depression at different levels of severity [20]. Post-outbreak, negative emotions (for example, anxiety, depression, and outrage) and sensitivity to social risks have been reported to increase, while positive emotions (for example, happiness and life satisfaction) decreased. People were more concerned with their health and family, while less concerned with leisure and friends [10]. In this regard, a survey conducted March 25-30, 2020, 45% of Americans reported that the stress of the health crisis was hurting their mental health, compared to 32% just 2 weeks earlier [21].

Additionally, women are more likely than men to report a significant negative impact on their mental health, including post-traumatic stress disorder, as are blacks and Hispanics, compared to whites [22]. Furthermore, during the epidemic, it is not surprising that older people are more likely to experience a psychological impact. Similarly, people with higher education tend to have more anxiety, probably due to their great self-awareness of their health. It should also be noted that migrant workers experience a higher level of anxiety [19].

Following the outbreak of severe acute respiratory syndrome (SARS) in 2003, the prevalence of post-traumatic stress disorder (PTSD) in SARS survivors was 10% in their early recovery phase, but the majority of patients have been reported with COVID-19 they experience significant post-traumatic stress symptoms before discharge, and these symptoms can lead to negative outcomes, such as a lower quality of life and poor work performance [5]. During the initial phase of the COVID-19 outbreak in China, it was reported that 54% of respondents rated the psychological impact of the outbreak as moderate or severe; 16% reported moderate to severe depressive symptoms; 29% reported symptoms of moderate to severe anxiety; and 8% reported moderate to severe stress levels. Most respondents spent 20-24 hours per day at home (85%); they were concerned that their relatives would contract COVID-19 (75%); Up-to-date and accurate specific health information (for example, about treatment, local outbreak situation, etc., and the particular precautionary measures such as hand hygiene, wearing a mask, etc.) were associated with less psychological impact of the outbreak, as well as a lower levels of stress, anxiety, and depression [23].

Also, all people are very nervous during COVID-19 outbreak coronavirus. Thus, there may be acts of violence and stigmatization by accusing people from outside the community of having introduced the coronavirus in the neighborhood or town. Neighbours can turn a resident "into a plague" and stigmatize his entire family, raising social alarm throughout the local community. In the context of COVID-19, certain groups, such as Chinese and other Asian, Italian, or people from the areas with the highest incidence within the same country or city, are stigmatized. According to

this reaction, some communities have already begun to face attacks on individuals, linked to fears about the virus [24]. On the other hand, in many places guidelines of not carrying out the diagnostic test for COVID-19 in people with a clinical picture of mild acute respiratory infection in the community, as happens on this date of April 14, 2020 in Spain, is cause of an "epidemic of anxiety" in the community [25]. Finally, it must be borne in mind that the emerging mental health problems related to this global event, not only imply a higher incidence, but can evolve towards lasting health problems, increasing the prevalence of psychiatric diseases [8].

De-compensation of patients with previous mental problems

The number of people dealing with mental illness during confinement is no less. For example, in Spain, one in 10 people suffer from a mental health problem and one in four will have it at some point in their life. And the World Health Organization (WHO) points out that mental health problems will be the main cause of disability in the world in 2030 [26]. People with mental health conditions could be more substantially influenced by the emotional responses elicited by the COVID-19 epidemic, resulting in relapses or worsening of an existing mental health condition due to the high susceptibility to stress in comparison with the general population. Furthermore, people with mental disorders may be exposed to more barriers to accessing timely health services, due to discrimination associated with mental illness in healthcare settings, cognitive decline, and little awareness of risk [27,28].

People with pre-existing mental illness may experience limiting interpersonal interactions that are critical to their management, as well as reduced access to useful but "non-essential" psychiatric services (and therefore often cancelled during the COVID-19 outbreak) [18]. Having a mental illness prior to confinement is a risk factor for anxiety symptoms and episodes of anger when the quarantine period ends. There is also a greater susceptibility of the mentally ill to COVID-19 infection due to issues such as the high smoking rates that occur in this group of patients and that cause a worse prognosis in case of illness. It is also noteworthy that within the homeless population, where there is much mental pathology, the control of COVID-19 is difficult, because the identification of the infection, its follow-up and the appropriate treatment are more difficult [26].

However, some experts argue that people with mental health problems in confinement, to the surprise of most, deal with seclusion with integrity, sometimes even experiencing some improvement. This evolution is not so infrequent, since it has been seen to occur in wars: the survival instinct masks psychological problems. Therefore, it is to be hoped that most people with pre-existing mental illness will manage well; even some can improve in the face of the challenges and needs of others. In this sense, after days of confinement, the pictures

that occurred in the AIDS epidemic, with many paranoid behaviors, do not seem to be seen witn the COVID-19 [26].

Effects of quarantine and social distancing

The COVID-19 disease outbreak has seen many countries ask people who have potentially come in contact with the infection to isolate them at home or in a quarantine facility. Social isolation among older adults is a serious public health problem due to their increased risk of cardiovascular, autoimmune, neurocognitive, and mental health problems; social disconnection puts older adults at higher risk for depression and anxiety [28]. In recent pandemics, isolation and quarantine (more extreme forms of social estrangement) have precipitated depression and anxiety. We might expect to see similar effects as confined people separate from loved ones, are deprived of personal liberties, and are purposeless due to routine and altered livelihoods. This can contribute to frustration, boredom, low mood, and potentially depression [18].

An example is the implementation of unprecedented strict quarantine measures in China by the COVID-19 epidemic has kept a large number of people in isolation and affected many aspects of people's lives. This situation has triggered a wide variety of psychological problems, such as panic disorder, anxiety and depression. In one study, almost 35% of the respondents experienced psychological distress [19]. Other researchers have reported negative psychological effects, including symptoms of post-traumatic stress, confusion, and anger. Stressors included increased quarantine duration, fears of infection, frustration, boredom, inadequate supplies, inadequate information, financial losses, and stigma. Some experts have suggested long-lasting effects, and even three years after isolation episodes of post-traumatic stress have been reported [20,29].

In any case, it must be taken into account that 85% of people live with their families and the reactions to social isolation and quarantine are very diverse, from fear to the need to leave, going through instability in the face of an uncertain future. In reality, it is a vulnerability that adds to many others that people can have. In any case, it seems that confinement will take a psychological toll on the entire population, regardless of their prior mental health status [6].

Truncated mourning

The COVID-19 pandemic is a never-before-seen situation: In a month, an unknown new disease has appeared, spreading exponentially, generating high mortality. Besides, palliative teams have great difficulty accessing patients. This situation involves unprecedented grief processes: having to say goodbye to a family member over the phone generates guilt and frustration. Families cannot be present even in very difficult moments, such as agony, and this generates very complicated situations of grief and family support. The support that these patients would have in a normal situation is truncated and very difficult situations are experienced. It is possible that

these experiences have some impact in the medium and long term. Therefore, this underscores the importance of following up on people who will suffer injuries that the GP will have to take care of [30].

The GPs approach to mental health in COVID-19

GPs must develop different initiatives, aimed at promoting adequate psychological coping in the four problem areas described above. As a result of the Chinese experience, recommendations and proposals for a psychological intervention in crisis have been published [31], which can serve as a model for the development of these interventions, based in turn on the response to Ebola in Africa [32]. These possible guidelines for approach and intervention are summarized in table 1 [6,11,14,18,20,24,26,30,33,34].

Conclusion

The COVID-18 pandemic presents a new, unexpected and tremendous challenge to people's mental health, and an increase in incidence is expected during the most acute phase of the outbreak, and an increase in the prevalence of mental health problems when society returns to social normality. Studies are needed to illuminate the recommendations for future interventions, but with the current information, from the general medicine healthcare level, the following areas of work are suggested: 1) Knowing and managing the epidemic of anxiety and fear in your patients; 2) Assessing possible de-compensation of patients with previous mental problems; 3) Knowing and managing effects of quarantine and social distancing; and 4) Knowing and managing possible truncated mourning. And the following recommendations for GPs intervention that are inserted into those areas: 1. Clinical interview; 2. Health information; 3. Health education; 4.-Telecare; 5. Crisis interventions; 6-Bibliotherapy; 7. Special efforts directed at vulnerable populations; 8. Psychosocial monitoring; and 9.-Follow-up of the "complicated" mourning.

After the COVID-19 pandemic "earthquake", GPs must wait for a "wave or epidemic" of mental health problems. GP's strategic role allows him to observe the appearance of new symptoms of mental illness, the exacerbation or decompensation of previous mental problems, and its cause-effect feedback in the matrix of relationships of patients (family, friends, caregivers, community). In this scenario, the GP should be able to carry out, based on a multi-disciplinary work, screening strategies, prevention, comprehensive biopsychosocial diagnosis, longitudinal follow-up, treatment and referral if necessary, of their patients with mental problems in the context of COVID-19.

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