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Mental Health and Protective Measures of Community and Healthcare Workers in the Covid-19 Pandemic

COVID-19 Pandemisinde Toplum ve Sağlık Çalışanlarının Ruh Sağlığı ve Koruyucu Önlemler

Filiz İzci [1], Filiz Kulacaoğlu [2], Engin Emrem Beştepe [3]

Abstract

Pandemic is an epidemic that exceeds international borders and generally affects people around the world. In addition to economic and psychosocial problems, pandemic causes additional mental health problems such as anxiety, depressive symptoms, insomnia, anger, fear and denial. A pandemic is an epidemic occuring on a scale that crosses international boundaries, usually affecting people on a worldwide scale. The pandemic causes additional mental health problems such as anxiety, depressive symptoms, insomnia, anger, fear, and denial besides economic and psychosocial problems. However physical and mental health of medical staff is affected, who carry major responsibilities both socially and professionally. With this compilation, we aimed to emphasize the importance of the psychological needs of both healthcare workers and the community these days that the COVID-19 pandemic has affected all of the world.

Keywords: Community mental health, covid-19, health workers, pandemic, preventive measures

Öz

Pandemi gibi tüm dünyayı etkileyen ölümlere neden olan salgınlarda, toplumun psikososyal, ekonomik ve fiziksel kayıplardan etkilenmesinin yanısıra; topluma en önde ruhsal ve fiziksel hizmet sunan sağlık çalışanları en cok etkilenen grup olmaktadır. Küresel tehdit oluşturan bu tür salgınlar; toplumda endişe, depresyon, ölüm kaygısı, yakınlarını kaybetme endişesi, belirsizliğe tahammülsüzlik gibi psikiyatrik belirtilere, salgın nedeniyle karantina uygulamalarının oluşturduğu psikososyal ve ekonomik güçlüklere neden olmaktadır. Toplumun yanısıra, tüm toplumu sosyoekonomik ve ruhsal yönden etkileyen pandemilerde; büyük ölçüde sosyal ve iş sorumluluğu yüklenen sağlık çalışanlarının ruhsal sağlığı da etkilenmektedir. Bu nedenle yazımızda; 2020 yılında tüm dünyayı etkisi altına alan COVİD-19 pandemisininin, toplum ve sağlık çalışanları üzerindeki ruhsal etkisini ve alınabilecek koruyucu önlemleri derlemeyi planladık.

Anahtar sözcükler: Covid-19, koruyucu önlemler, pandemi, sağlık çalışanları, toplum ruh sağlığı

[1] İstanbul Erenköy Mental Health Neurological Diseases Training and Research Hospital, İstanbul, Turkey

✉ Filiz İzci, İstanbul Erenköy Mental Health Neurological Diseases Training and Research Hospital, Department of Psychiatry, İstanbul, Turkey
filizizci@yahoo.com | 0000-0003-0576-9487

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COVID-19 (Coronavirus Disease 2019) is a very contagious respiratory illness caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) (Huang et al. 2020). The uncertainty and unpredictability of Covid-19 do not only threaten the physical health of an individual, it leads to mental health problems as well. The individual may experience different moods during the outbreak such as a state of deep fear, fatalism, or indifference (Honigsbaum 2016).

According to the behavioral immunity theory; individuals may develop negative emotions and cognitive evaluations to protect themselves (Schaller 2008, Ackerman et al. 2009). Those who are facing a potential disease tend to develop avoidance behaviors such as avoiding contact with people who present symptoms similar to pneumonia (Houston 1994).

Risk perception and stress theories suggested that situations threatening public health may trigger negative emotions while affecting cognitive assessment. These negative emotions may help people to avoid pathogens. On the other hand, long-term negative emotions may weaken the immune system and disrupt physiological systems (Slovic 1987, Norris et al. 2002). Furthermore, individuals who do not receive adequate counseling may overreact to any other disease which may lead to adjustment problems (Schaller M, Murray DR 2015). Psychiatric counseling should be done to the people who have higher anxiety symptoms and lower functional levels (Wheaton et al. 2012). Thus, it is very important to evaluate the psychiatric problems that are caused by the COVID-19 outbreak.

Worldwide; the pandemic causes additional mental health problems such as anxiety, depressive symptoms, insomnia, anger, fear, and denial. These worries impact strategies for controlling the COVID-19 outbreak, daily behaviors, cause mental and physical illnesses in both health care units, and public (Torales et al. 2020). With this compilation, we aimed to emphasize the importance of the psychological needs of both healthcare workers and the community in these days that the COVID-19 pandemic has affected all of the world.

COVID-19 pandemic

A pandemic is an epidemic occuring on a scale that crosses international boundaries, usually affecting people on a worldwide scale (WHO 2010). Throughout history, there have been many pandemics of diseases that resulted in dramatic mortality. In human history, the most fatal pandemic was the Plague, also known as the Black Death caused by Yersinia Pestis, resulting in the deaths of up to 75–200 million people in 14. Century (Cohn Jr 2002). A novel coronavirus that causes viral pneumonia was first identified in Wuhan city, China in December 2019. A novel coronavirus was named with Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and was a new strain that had not been previously identified in humans had become a severe risk factor for global health very rapidly. World Health Organisation (WHO) declared the outbreak as a Public Health Emergency of International Concern on 30 January 2020. On 11 February 2020, WHO announced a name for the new coronavirus disease: COVID-19. On 11 March 2020 due to a rapid increase in the number of cases outside China WHO declared COVID-19 a pandemic (Li et al. 2019).

The SARS-CoV-2 virus which is an enveloped and single-stranded RNA virus belonging to Coronaviridea family causes several diseases including respiratory, gastrointestinal, hepatic,

and neurological illnesses by infecting animals and people (Weiss and Leibowitz 2011). COVID-19 symptoms can range from an asymptomatic clinical course to severe respiratory failure and can end up with death. The most common symptoms are fever, cough, myalgia, fatigue, dyspnea, headache, hemoptysis, and diarrhea (Huang et al. 2019). This new virus spreads mostly by direct contact with infected people and respiratory droplets. Symptoms may develop 2 days to 2 weeks following exposure to the virus. Severe complications such as Acute Respiratory Distress Syndrome (ARDS) and multiple organ failure may occur during the illness. Besides the supportive care no specific treatment for COVID-19 has been developed yet. No vaccine is currently available for SARS-CoV-2. More researches need to evaluate the effectiveness of promising treatments such as antivirals, immunotherapies, and monoclonal therapies (tocilizumab) (Huang et al. 2020). According to the latest data, the number of covid cases in the world has exceeded 10 million and 506 thousand deaths have occurred. In our country; More than 198 thousand cases and 5.115 deaths were detected (WHO 2020).

Community mental health during pandemic

As the COVID-19 pandemic is spreading rapidly and has a high morbidity ratio, besides the physical illnesses it has brought unbearable psychological pressure on communities. Many precautions have been taken so far to control the spreading of COVID-19 pandemic in all over the world. In 2002, the outbreak of Severe Acute Respiratory Syndrome (Sars-CoV) was seen as a 'mental health catastrophe' and it was reported that comorbid incidence of psychiatric disorders was up to 58.9%. The most common psychiatric complaints were depression, anxiety, fatigue, pain, weakness. Post-traumatic stress disorder (PTSD) and major depression were the most prevalent long-term psychiatric conditions after the SARS outbreak, respectively (Mak et al. 2009). Persistent depression, anxiety, panic attacks, psychomotor excitement, psychotic symptoms, delirium, and suicidality were also reported in the early phase of the SARS outbreak (Xiang et al. 2009). Thus, besides the infectious treatments of COVID-19, clinicians should focus on the mental health issues of COVID-19 patients and survivors.

According to a recent study that investigated the psychological impacts of COVID-19 on college school students in China, 24.9% of the participants have experienced anxiety because of the COVID-19 pandemic. Having a relative or friend infected with COVID-19 was reported as an important risk factor for the development of anxiety symptoms and living in town, having a steady income and social support, and living with the family were found as protective factors (Cao et al. 2020). According to a recent study that investigated post-traumatic stress symptoms (PTSS) in China, the prevalence of PTSS was 7% a month after the COVID-19 outbreak. Moreover, women reported higher PTSS especially in the domains of re-experiencing, hyperarousal, and negative alterations in mood and cognition (Liu et al. 2020). Sijia et al. reported that, after the COVID-19 outbreak, negative emotions (e.g., anxiety, depression) and sensitivity to social risks increased, while the scores of positive emotions and life satisfaction decreased (Li et al. 2020).

In a recent study made in China, knowledge, attitudes, and practices (KAP) of Chinese

residents' towards C0VID-19 have been investigated. The participants completed online the KAP questionnaire which includes 12 questions regarding the clinical characteristics and prevention (for example wearing masks when going out in recent days or confidence in winning the battle against pandemic) of COVID-19. The results showed that 98% of the participants wore masks when going out in recent days and 97.1% of the participants had confidence that China can win the battle against COVID-19. According to logistic regression analyses the COVID-19 knowledge score was found significantly associated with negative attitudes and preventive practices. The majority of the participants were women and had a relatively higher socioeconomic status. These results can be interpreted that higher COVID-19 knowledge is associated with more optimistic attitudes and appropriate prevention practices towards the COVID-19 pandemic. Due to the majority of the participants had relatively higher socioeconomic levels, the representativeness of the sample was the limitation of this study (Zhong et al. 2020).

Mental health of health care workers during pandemic

Healthcare systems are amongst the hardest working organizations during pandemics which cause worldwide deaths. The physical and mental health of medical staff is affected, who carry major responsibilities both socially and professionally. All over the world doctors, nurses, and other frontlines, medical staff perform heroic and life-saving acts daily. Medical workers encounter various sources of stress lead by structural changes in medicine, not only limited to epidemics, wars, and other public health crises (Thomas et al. 2020).

The first study that investigated the impact on mental health and perceptions of psychological care among health care providers in Wuhan, where the COVID-19 outbreak began, reported direct and indirect exposure to COVID-19 affected mental health. According to this study, 71.3% of the participants had subthreshold mental health disturbances and mild disturbances, 22.4% had moderate disturbances and 6.2% had severe disturbances. Women had higher mental health disturbances. The majority of the participants had accessed psychological support through media and they saw these services as important resources to improve their psychological and physical health problems. Thus, providing psychological materials and resources for medical staff is very important during a pandemic (Kang et al. 2020a)

For reducing psychological damages of COVID-19 among health care providers in Wuhan, psychological intervention teams had been set up and provided psychological interventions for health-care workers and patients by telephone guidance (Kang et al. 2020b). In Italy, many hospitals provided individual psychological support especially for those that were working in COVID-19 units. Sessions were delivered by phone calls or video calls. However, group programs that were dedicated to helping a larger number of hospital workers by communication, talking, sharing experiences, expressing fears and hopes at the end of a day, were provided (Fagiolini et al. 2020). In France, where mortality ratio was high; psychiatry teleconsultation was provided to address the mental health issues of the medical and nonmedical hospital workers who exposed to overwork, stress, multiple deaths (Corruble 2020).

An earlier study showed that during the SARS outbreak in 2003, frontline healthcare workers suffered from significant stress and psychological morbidity was affected by perceptions of personal vulnerability, stress, and support in the workplace (Tam 2004). Another study observed 19 patients with SARS for 4 weeks. 11 of the participants were health care workers. Health care workers were affected by fear of contagion and anxiety about the risk of infecting their family, friends, and colleagues. The patients with SARS reported fear, loneliness, anger, and experienced anxiety about fever and insomnia. They reported uncertainty and stigmatization were prominent themes during the outbreak (Maunder et al. 2003). In this study the authors emphasized the importance of 3 clinical topics; first, staff and patients should be educated about the results of sleep deprivation, and insomnia should be treated. Second, the coping mechanisms are individual, and sharing the strategies may be supportive and beneficial. Third, feeling not alone is very important to be able to face such a crisis (Maunder et al. 2003). Also, healthcare workers have a fear of transmitting the disease to their relatives. This fear seriously affects healthcare workers.

In sum, the risk of getting infected during pandemics is very high among health care workers. Besides getting infected; facing several deaths, long work hours, staying away from family for long periods may increase the anxiety levels of health care workers. Thus, steady sessions should be provided by psychiatrists or psychologists to decrease psychological disturbances. However, providing flexible working hours, personal supports, and taking regular breaks are also recommended during pandemics (Shultz et al. 2007).

Effects of quarantine during pandemic

Quarantine is the separation and restriction on the movement of people who have potentially been exposed to a contagious disease. People in quarantine are those who are thought to have been exposed to the disease but currently do not show symptoms of the disease. These people are possible illness carrier and their disease status is unknown. The aim of the quarantine is to prevent the spreading of the illness by stopping the contact of a person who is probably sick (Huremović 2019). People may have unpleasant experiences during the quarantine. Being separated from loved ones, the loss of freedom, boredom and, uncertainty over disease may cause dramatic effects. Anger bursts, suicidal ideations, suicide attempts were reported in previous outbreaks (Brooks et al. 2020). According to the literature frequent psychiatric disorders during quarantine are acute stress disorder, PTSD, depression, general anxiety disorder, adjustment disorder. The risky groups for mental health problems during quarantine are; people with a history of psychiatric illnesses, health care workers, people with alcohol and substance use disorder, pregnants, people with the cognitive deficit, minority groups, and elder people (Yıldız et al. 2020). Longer quarantine duration, fear of infection, stigma, financial loss, insufficient supplies, inadequate information were reported as stressors. Thus, besides the potential benefits of mandatory quarantine, possible psychological costs should be considered.

It's thought that healthcare workers are one of the highest risk groups for the mental effects of the quarantine. After the SARS outbreak in 2003, many health care workers who were quarantined, reported avoidance behaviors such as minimizing direct contact with patients,

avoidance of crowds, severe burnout symptoms, insomnia, fatigue, lower concentration, unwillingness, and low motivation for work (Brooks et al. 2020). According to an earlier study; quarantine was found to be predictive of a high level of depressive symptoms, even 3 years after the outbreak (Liu et al. 2012).

After the SARS outbreak, health care workers who were quarantined reported severe PTSS than members of the community who were quarantined (Reynolds et al. 2008). Moreover, health care workers felt greater stigmatization than the public and showed avoidance behaviors after quarantine. They experienced severe emotional disturbances such as anger, annoyance, frustration, guilt, helplessness, loneliness, nervousness.

Stigmatization toward individuals who have contagious disease occurs during the quarantine period and may continue after quarantine. Infected people are getting exposed to stigmatization, and rejection from their colleagues, people in their local neighborhood even when they are treated. This situation may lead to provoke depressive symptoms in those people (Brooks et al. 2020). For reducing the stigmatization the rationale of the quarantine and education about the disease should be provided and more detailed information at schools and workplaces might be beneficial. Conferences, visitations, mutual activities, television programs are supportive and beneficial to deal with loss and grief. The volunteer activities that encourage social integrity may help to cope with mourning and improvement of mental health (Brooks et al. 2020).

In conclusion, quarantine is a necessary and effective strategy to deal with major infectious outbreaks. However, it has been reported that quarantine is associated with negative psychiatric outcomes and the psychological effects of quarantine can be detected months or years later. For this reason, psychological precautions should be taken into account as a part of the quarantine process (Yıldız et al. 2020).

Psychosocial care and protective precautions in pandemis

Psychosocial care

"Psychosocial" term is related to the interrelation of social factors and individual thoughts and behaviors (Ogden 1995). During disasters such as earthquakes, floods, wars, outbreaks; psychosocial support is essential to improve the community's mental health. Providing psychosocial care immediately after the crisis is accepted healthier. Psychosocial care is a multidisciplinary service that helps the community to return normalcy by relaxing and guiding individuals and teaching coping strategies for negative consequences.

After the Pakistan earthquake, in 2005, teachers were provided the get educated for psychosocial care. Group studies were done for treating PTSD and depression. During these studies expressing the mental effects of trauma caused by the disaster and relaxing techniques, coping strategies were used (Aydın 2012). After the hurricane disaster in the U.S.A, in 2005, hypertension, feeling chronic sick, severe anxiety disorders, and depression were reported due to the psychological effects of the disaster. PTSD was observed among

20% of the rescue team members such as policemen and fire workers. Thus, psychosocial care was paid attention (Parker 2008).

Today, during the COVID-19 pandemic, it is more difficult to control the crisis and psychosocial care. Because COVID-19 has been spread all over the world very quickly and none of the countries have been prepared enough for the outbreak. Due to no specific treatment for COVID-19 has been developed yet, preparing treatment algorithms and urgent interventions are essential during this period. It is very important to think outbreak crisis as a disaster crisis and bringing psychosocial care systems to life immediately

Protective precautions for community

during the pandemic, the anxiety symptoms may be reduced without steady sessions. Especially coping strategies may be useful for individuals with mild or moderate anxiety levels. These strategies (Rubin et al. 2009, Yıldız et al. 2020);

1. Following the sources of WHO and getting true information, avoiding unfounded information will help you to feel confident.
2. Similar disasters happened in the past period and humans were able to adapt more than predicted.
3. Try to do exercises, eat healthier, and sleep well. Avoid addictive substances.
4. Try to use the skills that you did in previous difficulties during the outbreak.
5. Make alternative plans for unpredictable situations. For example; plan how you can work at home, what you should do if you are sick or one of the family members is sick
6. Keep communication with your children. Try to speak with them about outbreaks with appropriate, understandable language. Try to do your routine with kids.
7. Try to keep your social relations, and share your experiences and emotions.
8. Take counseling if you have thought that you have functional disruption and anxiety for that.

Protective precautions for health care workers

Coping strategies for health care workers during a pandemic are listed below;

1. It is a normal process to be anxious for yourself and your family if you are in quarantine or not.
2. Uncertainty about the period may increase anxiety and tension levels, which may decrease the functionality.
3. Roles within the work environment and cooperation should be determined. Thus, individuals should be in clear communication with his/her colleagues and managers.
4. Sharing experiences, emotions, common problems with colleagues increase the solidarity felling.
5. Psychological counseling should be requested for depressive and post-traumatic stress symptoms during the quarantine period.

Conclusion

Considering predictions and precautions; physical, mental, social, and economic burdens of pandemics should be researched both during and after the outbreak. Protective measures for public mental health, and the crisis period which itself is traumatic should be managed in a way that would minimize the public impact. While most of the responsibility falls to government authorities, both healthcare workers and the public should be seen as essential parts of this process. Hence, foreseeable precautions should be taken which are required for both public health and that of healthcare workers in addition to a systematic application of psychosocial support.

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