



www.ijpes.com



ISSN: 2148-9378

The Psychological Impact of Covid-19 on University Students: Their Expectations of Mental Health Professionals

M. Siyabend KAYA¹, Yavuz KOŞAN²

¹ University of Reading, School of Psychology and Clinical Language Sciences, Reading, United Kingdom 0000-0001-9614-249X

² Muş Alparslan University, Department of Psychology, Muş, Turkey 0000-0003-4118-4777

ARTICLE INFO

Article History:

Received 05.03.2021

Received in revised form
21.07.2021

Accepted 05.09.2021

Available online

30.09.2021

Article Type: Research
Article

ABSTRACT

The current study focused on exploring the psychological impact of the COVID -19 outbreak on university students and participants' expectations of mental health professionals. Semi-structured interviews were conducted with 80 university students aged 18 to 33 years from 19 cities in Turkey. Qualitative content analysis was used to identify important aspects of the students' experiences. According to the results, the main effects of the epidemic COVID -19 on the participants were depression and anxiety. We found that participants used various ways to cope with COVID -19 such as reading books and paying attention to hygiene. Participants also indicated that they perceived some positive situations, such as the value of nature and humanity, the importance of family, and various negative situations, such as mental exhaustion. Finally, participants stressed that they had different expectations regarding psychosocial support and the planning of individual activities by mental health professionals

© 2021 IJPES. All rights reserved

Keywords:

Covid-19 psychological effects, university students, mental health professionals.

1. Introduction

Considering the 2020s, there was a dream of flying cars (NASA, 2014) and an opportunity to live on the Moon and Mars (NASA, 2020). Last year, however, almost all countries were busy teaching humanity how to wash their hands (HSGM, 2020; NHS, 2020; WHO, 2020a). On December 12, 2019, it was announced that a novel coronavirus (COVID -19) causing acute respiratory syndrome had been found in Wuhan. In the first three months, this virus reached about 120,000 cases and caused 4,300 deaths in 114 countries around the globe (Van Bavel et al., 2020). As a result, the World Health Organization (WHO) declared an international state of emergency on January 30, 2020 (WHO, 2020b). This situation was called a 'pandemic' on March 11, 2020 (WHO, 2020c). Like the whole world, Turkey has also declared this situation as a pandemic. In accordance with the recommendations of Scientific Committee of Turkey, a precautionary strategy was followed during this process by banning flights to different countries and closing borders (Çobanoğlu, 2020). The Ministry of Health (2020) announced the first case of the novel coronavirus in Turkey on March 13, 2020 and emphasized Turkey's success in coping with the process. On the other hand, the world press (Guardian, 2020) stated that Turkey is the fastest growing country considering the outbreak rate COVID -19. According to the database developed by John Hopkins University for COVID -19, the situation did not seem to be much different in other countries around the world, and even in countries like the US, Spain, Italy, France, the situation was much more serious (CCSE, 2020).

²Corresponding author: Muş Alparslan University, Department of Psychology, Muş, Turkey.

e-mail: kosan.y@gmail.com

Citation: Kaya, M. S. & Koşan, Y. (2021). The psychological impact of Covid-19 on university students: Their expectations of mental health professionals. *International Journal of Psychology and Educational Studies*, 8(Special Issue), 1-20. <https://dx.doi.org/10.52380/ijpes.2021.8.4.461>

The Impact of Covid-19

Although the mortality rate caused by COVID-19 is claimed to be not very high (Lau & Xiong, 2020) and vaccination processes are started rapidly (Ball, 2021), the constant mutation of the virus (Shariare et al., 2020) drives people into fear and panic situations (Mukhtar & Mukhtar, 2020). Also, the separation of individuals from their loved ones, thinking that they are not as free as they used to be, uncertainties about the disease, and boredom can sometimes have dramatic effects (Brooks et al., 2020). In particular, the uncertainty and low predictability of this virus threaten the physical health of people and affect their mental health, especially emotionally and cognitively (Li et al., 2020). Long-term stress and negative emotions can adversely affect the immune system of people and disrupt the balance of physiological mechanisms that progress in its course (Reed & Raison, 2016). As a result, a psychological situation may make this process much more dangerous for individuals with a possible risk of infection.

What has been done so far and Significance of the Study

Many scientists have made an intense effort to reduce and eliminate the effect of this process. Regarding the studies on COVID-19, both in Turkey and in the world, research has focused on the treatment dimension of the disease (Cascella et al., 2020; Kamer & Çolak, 2020), psychological (Arslan et al., 2021; Yıldırım et al., 2021) statistical (Roser et al., 2020) and economic interpretations (Atkeson, 2020), the investigation of ethical problems and values system caused by the process (Çobanoğlu, 2020). Conducting the current study becomes a must as there is a shortage of research examining the responsibilities of mental health professionals on this issue. Therefore, studies should be conducted immediately to identify the psychological effects of COVID-19 (Arden & Chilcot, 2020) and, in particular, the expectations from mental health professionals in this regard.

The whole world tries to take some precautions to overcome this fear, with the inner urge to survive and the will to live, and Turkey is no exception. These measures are maintaining social distance, suspending all kinds of scientific, artistic, cultural (ResmiGazete, 2020), religious activities (DİB, 2020), and ordering partial curfew. Given that man is a social being, his escape from his kind is considered far more painful than other fears. In this sense, mental health professionals should undertake important duties and responsibilities in this regard. This is because preventing the biopsychosocial development of individuals is regarded as one of the most basic requirements for a healthy developing world (Yıldırım, 2006). Thus, examining how this chaotic environment created by COVID 19 affects individuals and determining the resources to cope with this crisis process, and investigating the expectations of mental health professionals are among the aims of this study.

Purpose of the Study

- This study is one of the few studies to address the process of the pandemic from a "psychosocial" perspective and has a well-populated dataset (420 pages from 80 students) compared to qualitative research, revealing society's expectations of mental health professionals in such a chaotic environment. Although few of the psychological findings of the study have been taken up by other researchers, it is clear that there is a need for studies that examine the pandemic effect from a psychosocial perspective and in which this problem is comprehensively interrogated among university students. In this regard, this study aims to contribute:1. for the "staff in the field" to understand the difficulties experienced by society during such epidemic periods and the type of coping styles developed in the process.
- For the "society" to learn what is expected of mental health professionals and to increase the effectiveness of the rehabilitation and treatment process.
- For the "literature" to understand the psychosocial impact caused by the pandemic and to uncover what university students, who represent the future of society, have to say on the subject.

2. Method

2.1. Research Design

The phenomenology design, one of the qualitative research methods, was used to reveal the chaotic effects of Covid-19 on university students, their coping style with this situation, and their expectations from mental health professionals. Phenomenology research focuses on phenomena that we are aware of but do not have an

in-depth and detailed understanding (Yıldırım & Şimşek, 2016). In this design, individuals' experiences regarding a phenomenon and their meanings to these experiences are examined (Creswell, 2012).

2.2. Study Group and Data Collection

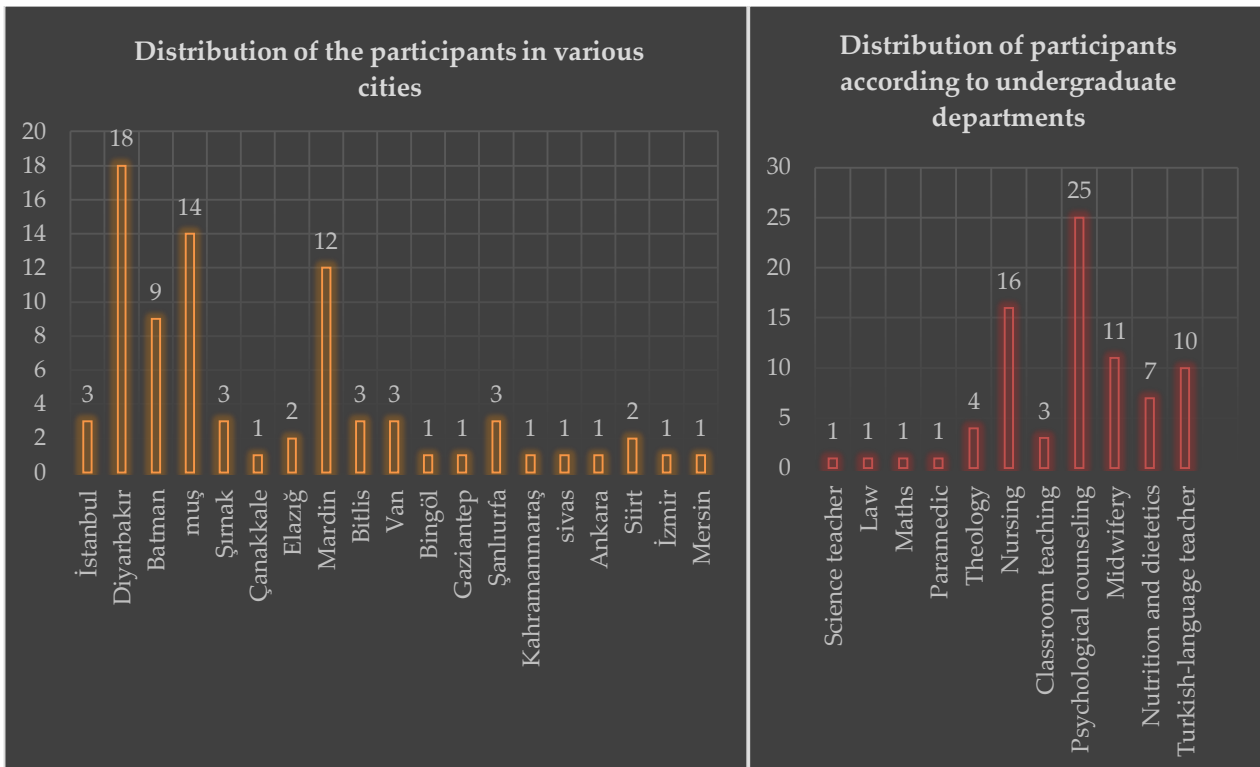
The study group consisted of 80 (16 males, 64 females) university students studying in different provinces of Turkey, aged between 18 and 33 years old (mean age = 21.26). Data were collected through a semi-structured online form prepared by the researchers. Two participants were diagnosed with COVID-19, and 11 participants stated that they had relatives diagnosed with COVID-19. Considering the infection risk of COVID-19, data were collected from university students by creating a semi-structured online (google form) document. Participants could write their ideas since it was impossible to collect data from the participants face to face. Below are some of the sample questions that we prepared to determine the psychological effects of the pandemic, the coping strategies of individuals and their expectations from mental health professionals in this chaotic process:

“What kind of psychological effects has Covid-19 had on you? How has it affected your psychological health? What changes have you observed in your environment (from a psychological point of view)?

What did you do to reduce the tension created by this process (coping strategies)? When you observe society, what are your thoughts on how they deal with this tension?

If you were an active mental health professional, what would you think society needs most right now? And what would you do/want to do about it? If I asked you about your expectations from mental health professionals during this process, what would you say?”

Demographic information regarding the departments of the participants and the cities they live in were given below.



Graphic 1. Demographic Information Regarding the Place Where the Participants Live and The Departments they Studied

There are 11 different departments, such as Psychological Counseling, Nursing, and Midwifery, and data were obtained from 19 different cities, mainly in eastern provinces.

2.3. Data Analysis

NVivo 12.0 was applied for analyzing the data. Themes and sub-themes were created by using both descriptive and content analysis. Despite the possibility that some expressions cannot be noticed with descriptive analysis and this analysis may remain superficial, content analysis enables these concepts to be discovered. The most fundamental process in this analysis is to combine concepts that are similar to each other under certain themes and sub-themes (Yıldırım & Şimşek, 2016). Accordingly, the authors read the entire data set to become familiar with them before any coding and then coded all of them. They coded and combined them under deeper and inclusive themes. In the last stage, they controlled data by deleting repetitiveness and combining close themes.

Responses from participants were sometimes shown in the text with direct quotations. Participant number and gender and the first letter of the department were included without giving the participants' identity (only PA was used for the Paramedic department). For example, considering 2MP, 2 referred to participant number; M (male) refers to gender; P (psychological counselling) indicated department.

3. Findings

3.1. The Impact of COVID-19 on Individuals and Community Psychology

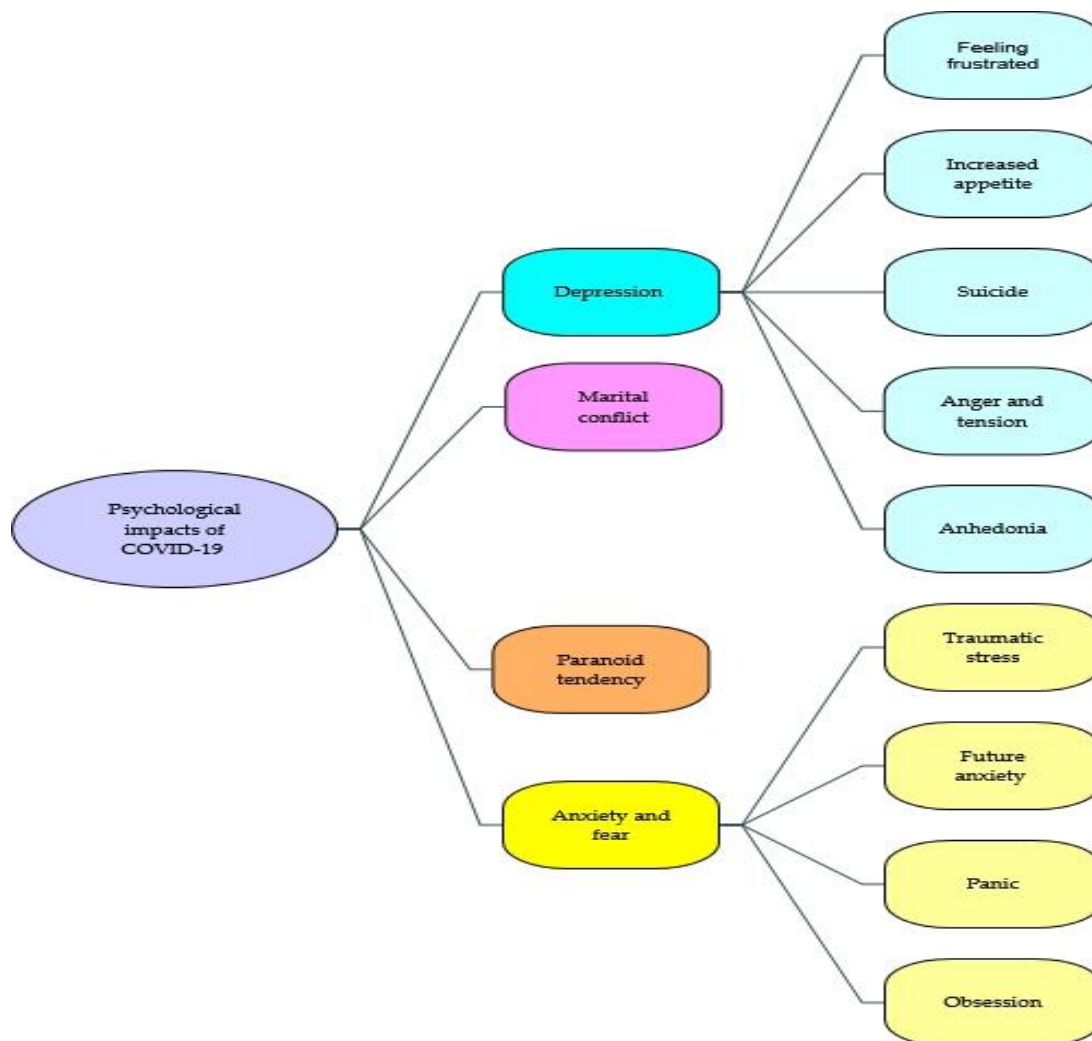


Figure 1. Themes and Sub-Themes Regarding the Impacts of COVID-19 on Individual and Community Psychology

Participants' statements about the impact of COVID -19 on individual and community psychology are shown in Figure 1. The greatest impact of COVID -19 on participants caused 'anxiety and fear' and 'depression' for both the individual and the community. In addition, 'paranoid tendencies' and 'marital conflict' were other themes mentioned by participants. One of the participants expressed the impact of this process as follows: *I did not imagine this time to be like this... Unable to maintain my normal life, I am finding it difficult to settle in at home... I am unfocused and can not concentrate on my lessons. I have to talk face to face with different people which makes me*

aggressive. I have a sleeping disorder and an eating disorder. I spend my time eating all the time. I sleep too late and wake up too late. I worry a lot, not about myself, but about my family...He expressed the effect on the community as follows:

'We are going through a difficult process. Based on my observation, I can say: There is an increase in people's anxiety levels. This is much more difficult for people with psychological disorders. Obsessive-compulsive disorders proliferated. Disconnection with people caused social media use. Hygiene obsession occurred. People need frequent hand washing. Sleep disorder occurred. People started to get angrier. I saw that people with financial problems and students preparing for the exam were very stressful (23FP)'

Finally, the following statement summarizes the psychological impact of the process:

'I think people's sense of confidence has been shaken... In normal life, there were dangers around us, but it was not so deadly. The possibility of carrying this disease and causing someone else's death caused a general feeling of panic and suspicion. People worry more due to the lack of clear information about when this unusual danger situation will end. Most people feel aggressive because they feel that they will not reach enough food and money after a while. Considering hygiene, we used to eat and drink very comfortably in the restaurant or anywhere outside, but now we started to think about whether it is hygienic. Hygiene issues caused an increase in obsessions and compulsions in people who were a bit obsessive. There has also been an increase in anxiety disorder because the state of uncertainty brings along high anxiety. The insufficiency of the intensive care units in the hospital and respiratory equipment caused high stress and sleep problems (26FP).'

3.2. The Coping Styles with the Psychological Tension Caused by COVID-19

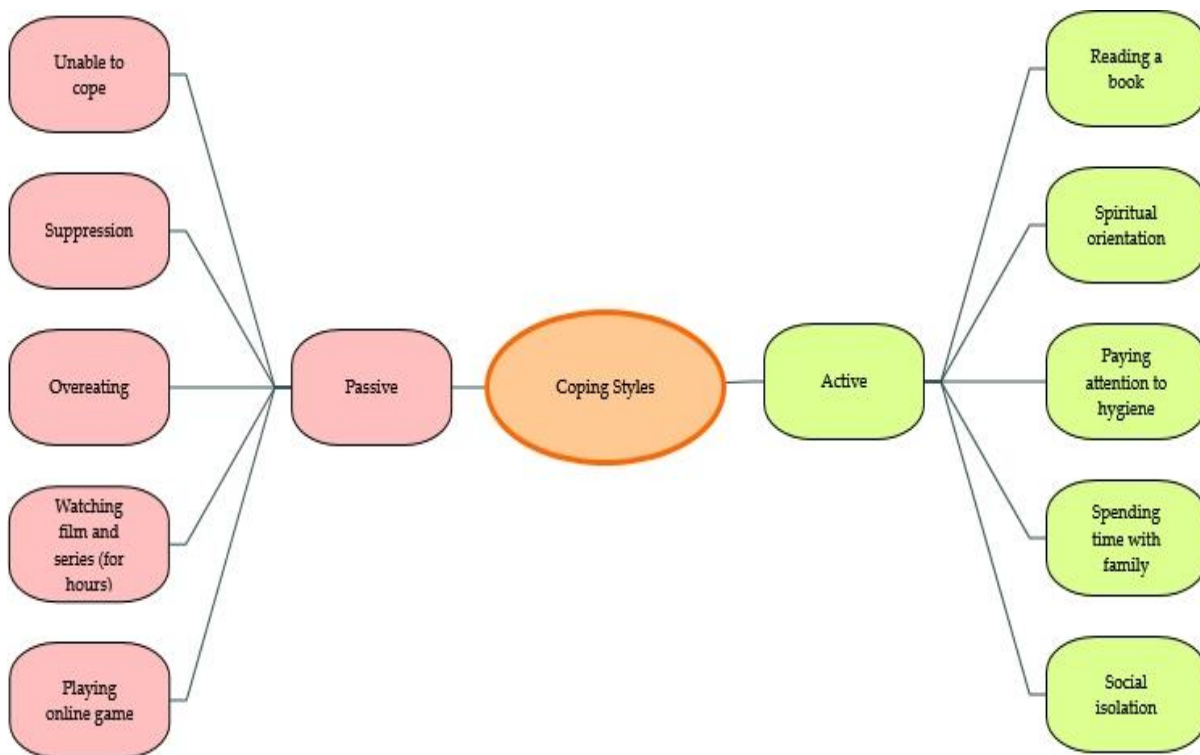


Figure 2. Themes and Sub-themes Regarding the Coping Styles with the Psychological Tension Caused by COVID-19.

While the active coping styles most frequently used by individuals in this process were generally "reading a book", "spiritual orientations", and "paying attention to hygiene", some participants stated that society could not healthily cope with this process. Finally, "suppression", "overeating", and "watching TV for hours" are among the other passive strategies expressed by the participants. Here is a representative statement:

'I am doing many things to relieve the tension of this process. Now, we have a lot of time that we normally do not have. For example, when I stay at home, I read books, watch movies, try to do sports as much as possible, and find

separate time for all of them. Besides, we play games with our family. I try to benefit from all resources I can find, including music, songs, videos, education. I think these lowered the tension a bit. (52MP).'

One participant expressed how she coped with his fears as follows:

'I had a terrible fear in the first days, but now I am not. Prayer reduces fear. I try to cope with the tension created by this process by reading books, studying, reading the Quran and its meaning' (22FE).

Regarding coping methods of community, a participant stated that:

'Previously, people weren't that sensitive about hygiene, but now everyone cares a lot about it. Since the virus has no cure, many people take refuge in Allah, pray and spend most of their time in worship. Many unbelievers also started to pray' (67FP).

3.3. The Personal Awareness that Emerged with the COVID-19 Process

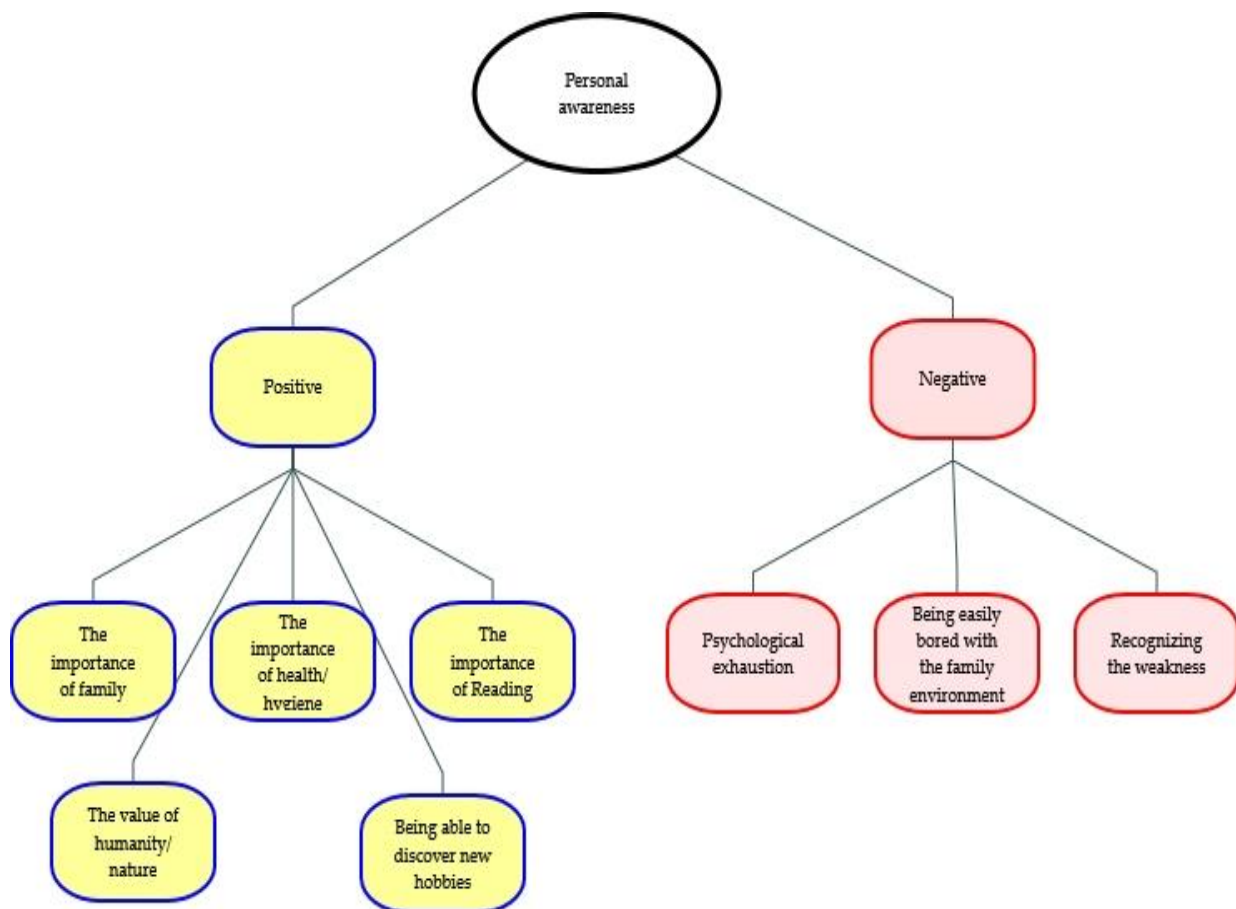


Figure 3. Themes and Sub-themes Regarding the Personal Awareness Caused by the Impact of COVID-19 on Individuals and The Community

When considering the personal awareness evoked by the impact of COVID -19 on the individual and the community, two main themes emerged: 'positive' and 'negative'. In addition, the themes were created in accordance with what the participants said. One of the positive themes is an understanding of the importance of 'nature/humanity', 'family' and 'health'. For example, one participant said, 'I realized that I am a conscious individual and my family members are also selfless. I realized that health is more important than anything else and that this outbreak required a vaccine. I have become aware of the value of my loved ones" (29FP). On the other hand, problems arose due to the tension caused by the process, such as mental exhaustion, weariness with the home environment, and recognition of one's weakness in the face of the virus.

Another excerpt is as follows:

Thanks to the call 'Do not go out, stay home', I have come to realize how valuable and necessary the time I spend at home is. I came to believe that people have the power to contribute to their own development in many ways. When I realized that death was not far away, I realized that it was time for me to stop my personal procrastination. I make little plans to overcome my inadequacies and laziness. I have once again encountered the fact that success must be continuous. Therefore, I have decided not to compromise and take steps to ensure that my actions reflect my consciousness as soon as possible" (46FP).

Here is another statement:

'People have realized the importance of collaboration as well as health. Parents have learned the difficulties that teachers had while teaching and they have respected and appreciated the teachers. The importance and necessity of hygiene come into prominence. People have started to pay attention to having a talk and communication. They have learned the necessity of patience. Since people who harm animals stay at home, the animals will be able to walk around comfortably for a while' (74FP).

3.4. Events that Being Witnessed

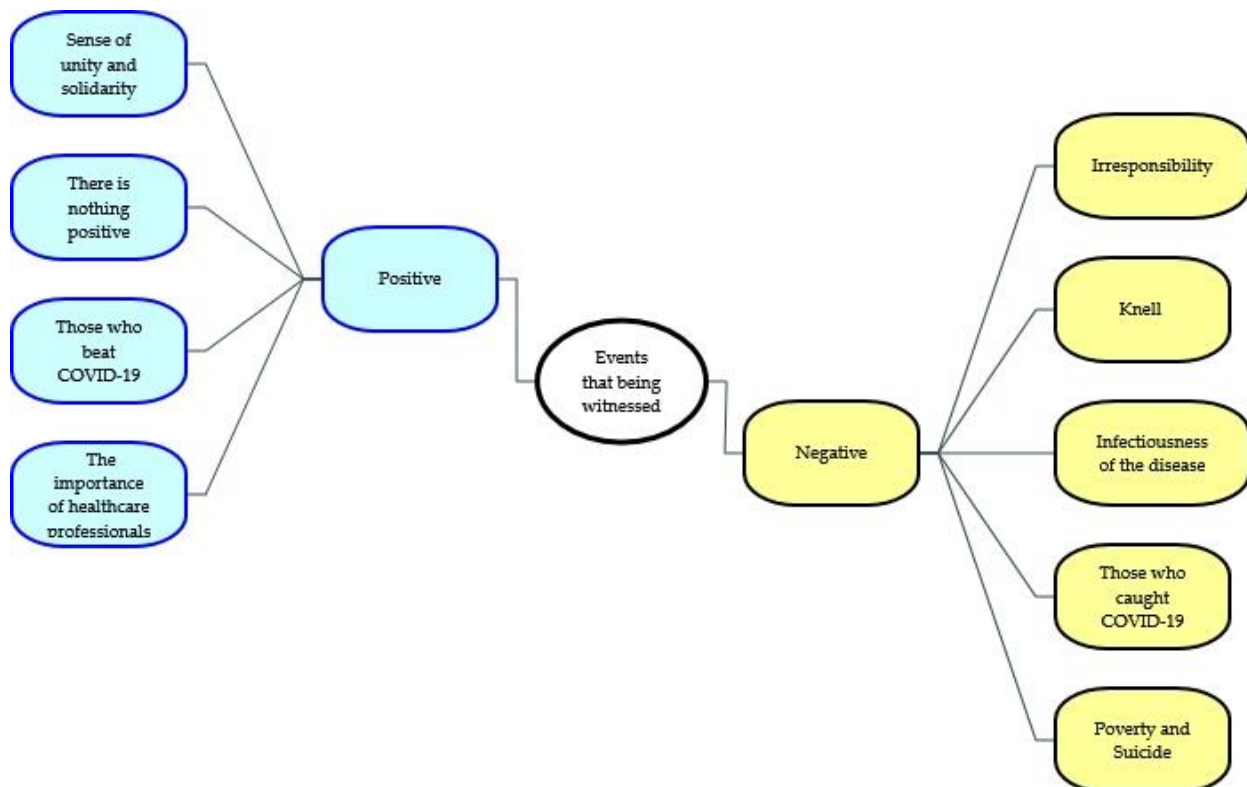


Figure 4. Themes and Sub-themes Created from those that were Monitored, Read, Experienced, and Witnessed During the COVID-19 Process

Participants' statements were divided into two separate themes: positive and negative statements. Positive statements were highlighted much less than negative statements. Looking at Figure 4, the most frequently expressed themes under the 'positive testimonies' theme were 'sense of unity and solidarity and 'those who beat COVID -19'. Those saying that there was nothing positive were also in the majority. On the other hand, the most noticeable theme in the 'negative testimonies' related to the 'irresponsibility' of individuals in society as well as the 'bell' and the 'contagiousness of the disease'. Below is the testimony of one of the participants on the positive theme: *'The number of people who have recovered, the unity of the people, the perfect manifestation of nature's existence without human touch, and the hope that everything will be alright...'* (29FP)

The following participant slammed the negativities:

'Unfortunately, food is stored in households because of the stress caused by uncertainty and the desire to protect ... Some young people say my immunity is already good and selfishly walk the streets ... There are politicians still trying to play politics ... Loss of confidence in the state ... Why does the state exist and why do we pay taxes? This is a big question I have. This is a question we will try to answer during the quarantine.. Living in their luxury houses, those who are in a good financial situation say, "stay at home!" and make judgments on those who live on minimum wage ... I think this rate is 50% in the world. We are confronted once again that the vast majority of capital in the world belongs to some individuals.... Some people make fun of even this situation' (26FP)

Finally, a participant stated that the process would be remembered negatively due to the following reasons:

I realized that we need to understand those who are starving, those who cannot do as they wish (e.g., those who are in a war zone and cannot go out), those who are sick and bedridden. I realized that we should know the value of health and time, because they show that the virus has the danger to infect and kill everyone, without making a difference between rich, poor, young and old. This process will be remembered with its negative aspects as long as the capitalists do this business. For example, those who sell a 3 lira mask for 30 lira and produce fake disinfectants and threaten human health...' (47FP).

3.5. The Expectations from Mental Health Professionals

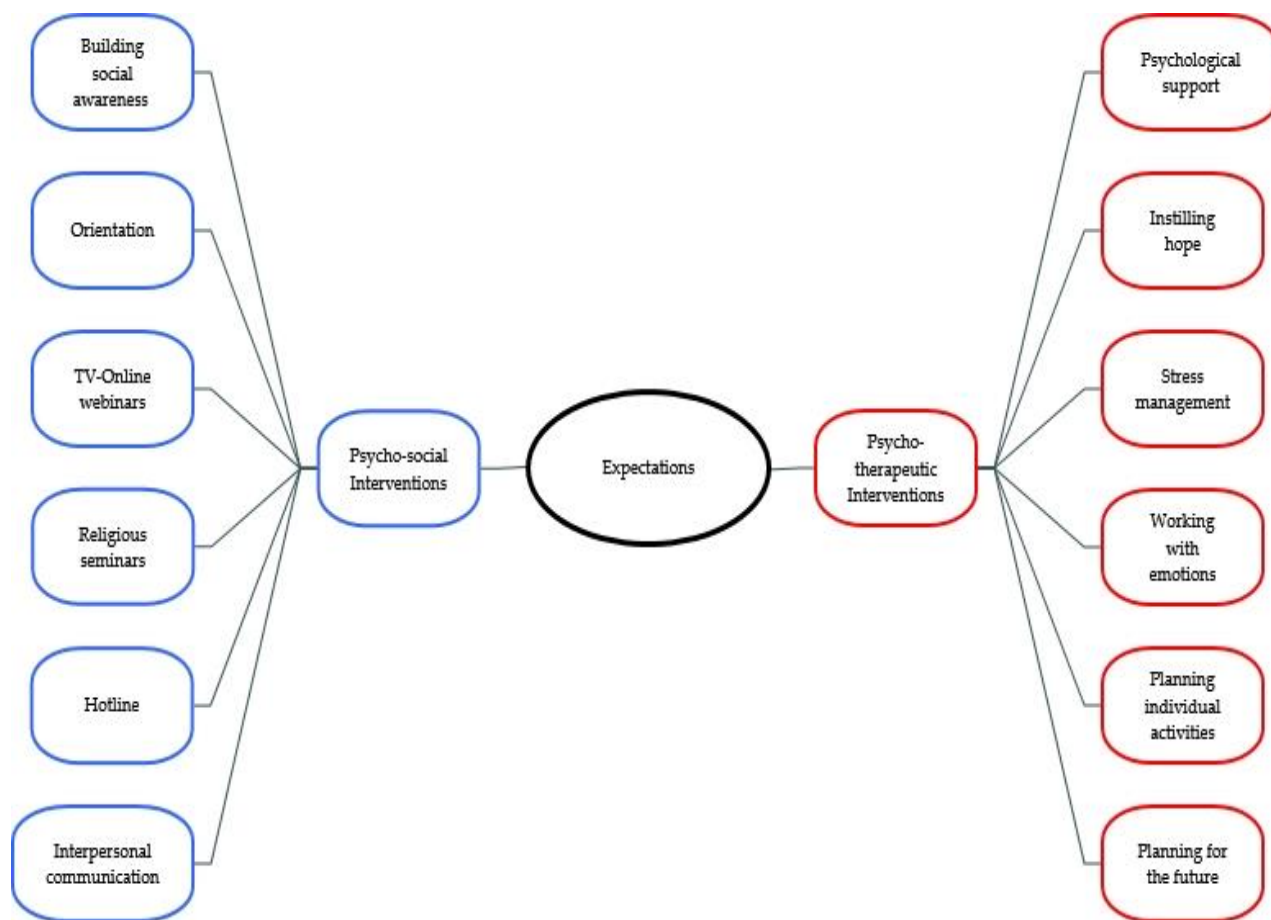


Figure 5. Themes and Sub-themes Regarding the Expectations from Mental Health Professionals

Participants' statements regarding the expectations from mental health professionals were examined and gathered under two main themes: the application of psychosocial and psychotherapeutic interventions. Considering the expectations, the most emphasized themes were “instilling hope”, “stress management”, “building social awareness”, “orientation”, and “giving seminars or webinars” through TV or online system. Although all themes of the 'expectations' sub-theme contain 'psychological support', the only reason for creating such a theme is that the participants directly used this expression. Here is a representative excerpt:

'What society needs most right now is healthy psychology. The news related to disease published every night creates depression. The authorities explain the situation calmly, appropriately, and without a doubt. However,

after a while, society becomes aware of the reality. People experience panic, stress, and sadness affects psychology. I expect from the authorities to be informed about how to get used to staying at home all time and what to do during our stay at home. Also, it seems very logical and helpful to find out what society thinks by doing this kind of survey. I believe such surveys should be done more '(20FH).

One participant underlined the need for mental health professionals:

'Mental health professionals should be as active as doctors. In Turkey, unfortunately, people get psychological advice from so-called YouTubers or phenomena. Therefore, mental health professionals should be active in every field, should conduct studies to gain skills about well-being and how to cope with stress and should give recommendations that can be applied by everyone' (26FP)

Another participant stated as follows:

'If I were the authority, I would organize TV programs (as therapy) on a few days a week to reduce our stress management and anxiety. It should be done with government assistance to reach the majority. The TV programs can be run as a live broadcast, and they can provide the opportunity to ask questions. In this period, mental health professionals have a great responsibility. They should appeal to people and take control of stress management. This is what I expect from them' (65MP).

4. Conclusion, Discussion, and Recommendations

Pandemics, various infections, and bioterrorism have become an international health problem (Ursano, 2005). Severe Acute Respiratory Syndrome (SARS) was an example of future pandemics and has helped prepare people for future outbreaks (Bonanno et al., 2008). The current study was conducted to examine the psychological impact of the COVID -19 outbreak on individuals. It found that COVID -19 has similar effects on individual and community psychology. Looking at the psychological effects of COVID -19 on the individual and community, various effects such as "fear and anxiety", "depressive symptoms", "paranoid tendency" and "marital conflict" are found. The results showed that most participants felt anxiety and fear. Anxiety refers to the future, not the 'here and now' as it is called in a psychotherapeutic concept, and warns us that we might be in danger (Tompkins, 2013). When we feel anxious, our mind and body go into a waking state and prepare us for the worst. Therefore, it will continue to be an inevitable part of life as long as there are threats and dangers in life. Fear is evidence of our willingness to experience, enrich, and overcome the things that threaten us (Steimer, 2002). In short, fear is a life force. Anxiety is a concept related to the 'here and now' and when the individual is in danger, it sounds the alarm. In a state of anxiety, there is no need to think about whether one is in danger or what that danger might be. For example, when we feel fear, we do not think about running away, we just do and it happens so quickly that we do not have to make the connection that we are in danger (Tompkins, 2013). Ultimately, anxiety and fear, although perceived as negative, can be expressed as the two most basic reactions that are vital for individuals to protect themselves from life, hold on to life, and protect themselves when in danger (American Psychiatric Association [APA], 2013). Accordingly, anxiety and fear reactions can be considered as natural reactions of individuals to overcome the COVID -19 outbreak. Research indicates that both citizens and healthcare workers experienced high levels of anxiety during the SARS outbreak that occurred in China (Yueqin et al., 2003; Tam et al., 2004; Cheng et al., 2004; Ho et al., 2005; Yu et al., 2005; Bonanno et al., 2008). Like the previous SARS virus, Wuhan originated coronavirus disease (COVID-19) in China's Hubei province spread throughout China at the beginning of 2020. As a result of the rapidly increasing number of confirmed cases and deaths, healthcare professionals and the public have been reported to experience intense anxiety and fear problems (Xiang et al., 2020; Kang et al., 2020). Limited information and negative news about COVID-19 can cause anxiety and fear in the community (Bao et al., 2020; Shigemura et al., 2020). Many studies have also determined that pandemics cause anxiety and fear among people. Even so, the fear of COVID-19 has been called coronaphobia (Ahorsu et al., 2020; Asmundson & Taylor, 2020; Lee, 2020; Lee et al., 2020; Qiu et al., 2020; Roy et al., 2020; Wang et al., 2020a). The current study's findings are in line with the literature, showing that participants experienced anxiety and fear.

Depressive symptoms were observed in some of the participants in the current study. Similarly, a study conducted to investigate SARS at Hong Kong compared the psychological adjustment of participants before and after the outbreak. It was found that the outbreak of SARS led to an increase in depression and emotional

distress (Yu et al., 2005). In various studies conducted to investigate the SARS outbreak, participants' depression scores were high (Cheng et al., 2004; Fang et al., 2004). Also, in studies conducted on COVID -19, it was found that such crises can cause various problems such as depression in individuals (Kang et al., 2020; Xiang et al., 2020). From the literature, the onset of COVID -19 increases the depressive symptoms of individuals (Kendler et al., 2020; Shevlin et al., 2020; Qiu et al., 2020; Wang et al., 2020b). Although depression has many symptoms, it is a depressive disorder characterized by generally depressed mood, apathy toward activities, disturbances in eating and sleeping patterns, and sadness. In general, depression can be viewed as a reaction to negative experiences. The onset of COVID -19 is a sudden and rapidly developing life event. It is normal for people to exhibit depressive reactions such as low mood, anhedonia, insomnia, sleepiness, and increased appetite. To put it more clearly, depressive symptoms are reactions to restore harmony lost in life. Another finding is that participants felt angry and nervous. Anger is an effective response to life-threatening situations or stressful events. Anger is an emotion directly related to survival response and threat perception (Anderson & Bushman, 2002). Anger is not only an emotion that stems from helplessness, weakness, and inadequacy, but it is also a healthy emotion that alerts individuals to potential danger and trauma. A study conducted with users of Weibo (a social networking site in China) found that people's emotional indicators were negative, and in particular, their anger levels increased significantly during the outbreak of COVID -19. The reason for the increase in anger level is that people did not find the strategies and measures taken satisfactory, and sharing false information about the outbreak is another factor that increases anger (Li et al., 2020a). In addition, individuals under isolation measures may experience boredom, disappointment and anger (Li et al., 2020b). According to another finding of the study, some of the participants developed obsessions. Obsessions do not occur randomly, and they are generally triggered by various external events (Banerjee, 2020a; Fineberg et al., 2020; Shafran et al., 2020). Obsessions are repetitive and persistent thoughts, impulses, or fantasies that sometimes arise unintentionally, are experienced inappropriately, and cause significant anxiety and distress. Compulsion, on the other hand, is repetitive behaviors (e.g. washing hands, organizing, checking) or mental actions (e.g. praying, counting, repeating words quietly) that appear as a reaction to obsession and must be applied strictly (APA, 2013). Health hazards and outbreaks lead to the development of obsessions. Especially those with obsessive-compulsive disorder are more affected by these conditions (Banerjee, 2020b; Fineberg et al., 2020; Shafran et al., 2020). Hand and respiratory hygiene and social distance are the main strategies recommended by WHO for the COVID-19 outbreak. Hand washing, which is considered as one of the safest measures against the outbreak, has increased the demand for disinfectants, soaps, and disposable gloves. Almost all media sources draw attention to hygiene (Banerjee, 2020a). The threat of virus-related contagion may trigger individuals' obsessions, and it is appropriate to provide specific information about the outbreak to people prone to obsessive-compulsive disorder (Fineberg et al., 2020).

Research shows the increase in obsessions during outbreaks of SARS and MERS. When strategies developed to counter outbreaks involve repetitive behaviors, they risk reinforcing obsessive-compulsive disorders (Mak et al., 2009). During the COVID -19 outbreak, several common factors may have contributed to the increase in OCD. Situations such as increased hand washing, suggesting a specific time to wash hands, and being advised to wash hands properly lead to this behavior being viewed as a ritual. Various situations can trigger and reinforce obsessions and compulsions, such as distrust when coming home from outside, the need to keep hands clean, the family's strict hygiene measures, constantly emerging information about the virus and triggering thoughts of infection, increased repetitive behaviors and exaggerated measures, and stockpiles of masks, soaps, disinfectants that can lead to piling and panic (Shafran et al., 2020). Because of the uncertainties surrounding obsessions, a clinical guide to managing obsessions in the pandemic COVID -19 has even been published (Fineberg et al., 2020). According to learning principles, obsessions are conditioned stimuli and produce anxiety. Compensatory strategies such as avoidance and repetition are used to reduce this generated anxiety. These strategies constrict the individual's living space and negatively affect his or her functionality (Salzman & Thaler, 1981; Sungur, 2006). Findings indicate that obsessive-compulsive behaviors are on the rise. The news about hygiene may have contributed to the development of the obsessions by causing individuals to take excessive hygiene measures, as there was no vaccine available at the time of data collection.

Some of the participants in the study expressed the COVID-19 outbreak as a traumatic experience. Traumatic experiences are a highly compelling experience that renders individuals' coping mechanisms dysfunctional, causes feelings of helplessness, and creates a shock effect on their perception of themselves and their environment (Ruppert, 2008). People are highly affected by loss, violence, war, repression, and disasters

(Horesh & Brown, 2020). Although the COVID-19 outbreak is stated not to meet some criteria of the ICD 11 regarding a traumatic event, some studies show that the risk of post-traumatic stress symptoms increases after traumatic events such as COVID-19 (Galovski & Lyons 2004; Shevlin et al., 2020). A study on the SARS outbreak indicates that 35% of hospitalized patients experienced moderate anxiety and depression, and post-traumatic stress disorder (Cheng et al., 2020). In addition, it is argued that COVID-19 is a new mass trauma, and various types of trauma (sexual assault, war, natural disaster, etc.) should be handled comprehensively. Therefore, it is reported that the definition and consequences of trauma need to be reconstructed (Horesh & Brown, 2020). Covid-19 may cause traumatic experiences in individuals due to inadequacy, feelings of helplessness, and stress. These experiences need to be handled and evaluated with a different methodology.

Data exhibited some symptoms of panic. Panic is defined as a sudden, "very intense fear" accompanied by increasing or hasty attempts to ensure the person's safety (Beck et al., 2005). Stressful life events may occur prior to the development of panic disorder. An increasing number of cases day by day and their rapid spread can increase panic, especially in vulnerable people (Islam et al., 2020). COVID -19 outbreak poses a serious threat to people's physical health and life. It also triggers a variety of psychological problems such as panic disorder, anxiety and depression (Qiu et al., 2020). A study conducted in Bangladesh found that 79.6% of the participants suffered from panic symptoms. The research highlights that individuals with low levels of education may show less panic due to their limited knowledge about the pandemic, which should be further investigated (Islam et al., 2020). Participants might show panic symptoms due to the sudden onset and spread of the outbreak, uncertainty about precautions to be taken and treatment methods.

The pandemic COVID -19 affects the mental health of all segments of society. It causes anxiety in both infected and uninfected people and sometimes requires advanced psychological interventions (Duan & Zhu, 2020). Reaction to a pandemic is equated with paranoia, causing many people to question their mental health and resilience (Ho et al., 2020). In a study conducted in the UK, participants indicated that fear of COVID -19 also plays a role in the development and maintenance of paranoia. Specifically, it is hypothesised that COVID-19 induced stress may trigger paranoia. Therefore, the response to paranoia will increase when individuals are exposed to news related to the topic. In addition, social factors such as low political confidence, isolation, and decreased social support are associated with COVID -19 anxiety and may increase paranoia (Lopes et al., 2020). In a case of schizophrenia in Germany, it was reported that COVID -19 induces a psychotic phase by reinforcing paranoid experiences, unrealistic expectations, and fears (Fischer et al., 2020). In another study conducted in India, 37% of participants reported experiencing the paranoia of COVID -19 (Roy et al., 2020). In the present study, it was found that the participants had paranoid thoughts, which suggests that this unsafe environment where the participants were in severe anxiety and fear could trigger this situation.

Another finding of the study was that participants were concerned about the future. The personal future is the area of planning, goal setting, and implementation. Generally, people have a positive or negative attitude when they think about the future. Therefore, thinking about the future triggers either hope or fear in the individual. The perspective of the future creates an open space for different cognitive processes and emotional attitudes, depending on how many positive or more negative events are expected in this area. When negative experiences occur in the individual's environment (such as global conflict, pollution, death of family members, social alienation, sociopolitical events, war, and terminal illness), this can contribute to the individual's anxiety about the future (Zaleski, 1996). Anxiety is a state of mental tension and creates future anxiety in the individual (Taylor, 2019). In a study conducted with university students in Bangladesh, it was found that COVID -19 anxiety had a significant effect on the future work force and career anxiety of university students. Due to the occurrence of an uncertain situation like COVID -19 people tend to worry about their future. This level of anxiety increases further when the fear of death and livelihood is added to it. Outbursts such as COVID -19 discourage university students who are preparing to enter the job market soon (Mahmud et al., 2020). In the present study, all participants were university students. The data of the study were collected in the first week of April when anxiety was high and uncertainty and isolation measures were highest. The uncertainty of how long the pandemic would last and the many unknowns could cause university students to be fearful of the future.

Participants pointed to the increase in domestic violence and marital conflict. One of the effects of the new coronavirus is the increase in domestic violence, which can be described as a new public health crisis. According to the literature, domestic violence increases during times when families spend more time together,

such as New Year's Eve and summer vacations. During the pandemic, people called for a lot of help for marital conflicts and violence. Even the United Nations called for action to combat domestic violence worldwide (Taub, 2020). The world is under a lot of stress because of the outbreak of COVID -19. The impact on individual and family life is evident (Lebow, 2020a). It has also been speculated that COVID -19 will trigger a baby boom, or conversely, that divorces will increase (Lebow, 2020b; Matchan, 2020). The COVID -19 pandemic has many undesirable consequences. One of them is that children and women are more exposed to the risk of domestic violence (End Violence against Children, 2020). Research shows that homicides increase in several countries during periods of severe restraint (Ingala Smith, 2020). However, it does not seem possible to distinguish whether the increase in domestic violence and homicide is a real increase or an increase due to media attention. It is also important to note that violent incidents are a very small percentage of actual incidents (Bradbury-Jones & Isham, 2020). Previous experience shows that spousal violence and sexual violence can increase during major disasters and crises (New Zealand Family Violence Clearinghouse [NZFVC], 2020). Domestic violence in Australia has been found to increase by 5% and searches for help with domestic violence in Google searches have increased by 75% (Kagi, 2020; Poate, 2020). Reports show that domestic violence has increased significantly in America, China, Italy, France, Spain and Brazil (Campbell, 2020). Domestic violence has increased especially after natural disasters. The rapid increase in stress, changes in daily routines, controlling behaviors, unemployment, and decreased social support are cited as risk factors for the increase in domestic violence (Zahran et al., 2009). During the pandemic COVID -19, family members spent more time together, which caused previously repressed issues to surface and trigger family conflict. In addition, the stressful environment created by the pandemic may have led to the emergence of these problems in the family by triggering them.

Participants of the study stated that they had experienced feelings of frustration. Due to traumatic and stressful experiences, individuals may experience frustration, hurt, and disappointment (Mooney, 2007). The pandemic process is a period of intense restrictions. The study data were collected in the first week of April when there was a severe restriction. Especially, supplying only essential needs, closure of universities, the transition to online education, and a decrease in social activities and interaction may increase the feelings of possible frustration in individuals.

People are exposed to various physical and mental stimuli during their lives. These stimuli can, of course, affect the individual's adaptation. Individuals also often struggle to cope and relax with these difficult events (Werden, 2002). During the COVID -19 pandemic, individuals used various coping strategies to reduce the stress caused by the outbreak. Those affected indicated that they primarily engaged in physical activity, exercise, speech therapy, virtual support groups, and religious and spiritual practices (Shechter, 2020). One study showed that participants used various coping strategies to reduce the stress caused by the onset of the disease, such as reading and writing, interacting with people on the Internet, TV -watching movies, playing video games, cooking, paying attention to hygiene and cleaning, talking on the phone, exercising and meditating, eating more, and drinking more alcohol (Asmundson et al., 2020). Coping represents behavioral, cognitive, and emotional efforts to cope with stressful situations (Lazarus, 1999; Folkman & Lazarus, 1984; Terry, 1994). In the study, people were found to use different coping methods to reduce the emotional impact of COVID -19. Life events, especially outbursts such as COVID -19, can often be stressful. Individuals develop different responses to cope with stressful situations. In order to reduce the stress caused by COVID -19, participants will access various coping strategies with an emotional, cognitive, and behavioral focus.

As a result of the measures and restrictions imposed COVID -19 , individuals have more time for themselves and their families. Participants indicated that the pandemic process helped them to become aware of some positive (importance of humanity/nature, family and health) and negative (mental exhaustion, boredom) situations. Consciousness, as a concept associated with 'awareness', is generally associated with human beings (especially those who are psychologically developed and mature) (Appelbaum, 1973). Psychological Mindedness broadly encompasses awareness and understanding of psychological processes such as thoughts, emotions, and behaviors. Some definitions of psychological consciousness focus on self-awareness. Consciousness encompasses an individual's thoughts, feelings, and behaviors toward themselves and their environment (Beitel, Ferrer & Cecero, 2005). Since the pandemic, the too much uncertainty and restrictions imposed have caused various negative feelings, thoughts, and behaviors. People find more time to think about certain situations (family, health, environment, etc.) that individuals hardly care about in their daily routine.

During crises and disasters, the media plays a crucial role in informing the public. Social media is a very effective tool to influence people's perceptions (Eisenman et al., 2007; Rossmann et al., 2018). They provide an opportunity to quickly disseminate information to both experts and the general public (Ophir, 2018). In a study conducted with physicians and medical students, 61% of participants reported learning about COVID -19 through social media (Malecki et al., 2020). According to a study conducted in China, the use of social media and TV increased during the outbreak and they were the main sources of information. However, some individuals indicated that they did not want to hear negative news about the coronavirus. WHO uses the COVID -19 infodemic to define the spread of information about the virus, and this step was a good attempt to help spread accurate information about the virus and reduce the spread of panic (Hua & Shaw, 2020). Participants in this study indicated that most of the information they received through social media, TV, and other means of communication remained negative in their minds. In line with the current findings, it can be said that measures should be taken to properly inform people and reduce the panic situation during this type of outbreak.

The last finding is that people had different expectations from mental health professionals. Seeking help and support from professional (formal resource) or non-professional (informal resource) people to get rid of problems they cannot cope with. The ability of individuals to seek professional help when needed plays an important role in improving their mental health (Husaini et al., 1994). Health emergencies in the community can affect the health, safety and welfare of both the individual and the community. The outbreak of COVID -19 has alarming effects on the health, emotional and social functioning of individuals and communities (Pfefferbaum & North, 2020). Most people are quite resilient and do not succumb to psychopathology during sudden natural disasters and crises. However, some may develop psychopathology when exposed to life-threatening situations such as natural disasters, technological accidents, weapons of mass destruction, or viral infections (APA, 2013). Considering that most COVID -19 cases involve health workers with little or no mental health training, assessment and intervention for psychosocial problems in such settings are imperative (Pfefferbaum et al., 2012). It can be said that during the outbreak affecting the entire society, people have been severely affected psychologically and their expectations from mental health professionals have increased as a natural consequence.

5. Strength, Limitation, Implications and Future Research

This study provides some important insights into the psychological problems faced by university students during the pandemic, their strategies for coping with these problems, and their expectations of mental health professionals in this process. On the other hand, the results of this study may not be applicable to all university students in Turkey due to the methodology used. In this sense, it is recommended that more comprehensive quantitative and mixed methods studies be conducted for mental health professionals in order to develop more effective intervention strategies, especially in such epidemics that affect society. For example, some researchers (Tanhan et al., 2021; Doyumğaç et al, 2021) have recently used the 'Online Photovoice (OPV) method', an effective and rich research method that reaches diverse participants and achieves meaningful and significant results by reducing the amount of researcher and participant time (Tanhan & Strack, 2020) to understand the psychological impact of COVID -19. Therefore, we strongly recommend that future researchers use innovative qualitative research methods such as OPV to investigate the same or similar topics compared to traditional quantitative methods, as OPV allows participants to express their own experiences with as little manipulation as possible. Finally, mental health professionals are expected to address the religious, spiritual, and social aspects of people in addition to the issues that require direct psychotherapeutic intervention. Therefore, in such crises where existential goals tend to be challenged, they should not hesitate to use the individual's religious/spiritual/social values for their well-being. These can even be discussed in a therapeutic setting if clients are willing to bring such issues there. In summary, we recommend that they continue to develop as culturally attentive professionals in these areas.

6. References

Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The fear of COVID-19 scale: Development and initial validation. *International Journal of Mental Health and Addiction*. doi: [10.1007/s11469-020-00270-8](https://doi.org/10.1007/s11469-020-00270-8)

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC. <https://doi.org/10.1176/appi.books.9780890425596>
- Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology*, 53(1), 27-51. doi: <https://doi.org/10.1146/annurev.psych.53.100901.135231>
- Appelbaum S. A. (1973). Psychological-mindedness: word, concept and essence. *The International Journal of Psycho-analysis*, 54(1), 35–46. Retrieved from: <https://www.pep-web.org/document.php?id=ijp.054.0035a>
- Arden, M. A., & Chilcot, J. (2020). Health psychology and the coronavirus (COVID-19) global pandemic: A call for research. *British Journal of Health Psychology*, 25(2), 231–232. <https://doi.org/10.1111/bjhp.12414>
- Arslan, G., Yildirim, M., & Zangeneh, M. (2021). Coronavirus anxiety and psychological adjustment in college students: Exploring the role of college belongingness and social media addiction. *International Journal of Mental Health and Addiction*, 1-14. <https://doi.org/10.1007/s11469-020-00460-4>
- Asmundson, G. J., Paluszek, M. M., Landry, C. A., Rachor, G. S., McKay, D., & Taylor, S. (2020). Do pre-existing anxiety-related and mood disorders differentially impact COVID-19 stress responses and coping?. *Journal of Anxiety Disorders*, 74, 102271. doi: <https://doi.org/10.1016/j.janxdis.2020.102271>
- Asmundson, G., & Taylor, S. (2020). Coronaphobia: Fear and the 2019-nCoV outbreak. *Journal of Anxiety Disorders*, 70, 102196. <https://doi.org/10.1016/j.janxdis.2020.102196>
- Atkeson, A. (2020). *What will be the economic impact of covid-19 in the us? rough estimates of disease scenarios* (No. w26867). National Bureau of Economic Research. Retrieved from: <http://acdc2007.free.fr/nber26867.pdf>
- Ball, P. (2021). The lightning-fast quest for COVID vaccines-and what it means for other diseases. *Nature*, 589(7840), 16-18.
- Banerjee D. (2020a). The COVID-19 outbreak: Crucial role the psychiatrists can play. *Asian Journal of Psychiatry*, 50, 102014. <https://doi.org/10.1016/j.ajp.2020.102014>
- Banerjee D. D. (2020b). The other side of COVID-19: Impact on obsessive compulsive disorder (OCD) and hoarding. *Psychiatry Research*, 288, 112966. <https://doi.org/10.1016/j.psychres.2020.112966>
- Bao, Y., Sun, Y., Meng, S., Shi, J., & Lu, L. (2020). 2019-nCoV epidemic: Address mental health care to empower society. *The Lancet*, 395(10224), e37-e38. doi: [https://doi.org/10.1016/S0140-6736\(20\)30309-3](https://doi.org/10.1016/S0140-6736(20)30309-3)
- Beck, A. T., Emery, G., & Greenberg, R. L. (2005). *Anxiety disorders and phobias: A cognitive perspective*. Basic Books.
- Beitel, M., Ferrer, E., & Cecero, J. J. (2005). Psychological mindedness and awareness of Self and Others. *Journal of Clinical Psychology*, 61(6), 739–750. <https://doi.org/10.1002/jclp.20095>
- Betsch C. (2020). How behavioural science data helps mitigate the COVID-19 crisis. *Nature Human Behaviour*, 4(5), 438. <https://doi.org/10.1038/s41562-020-0866-1>
- Bonanno, G. A., Ho, S. M. Y., Chan, J. C. K., Kwong, R. S. Y., Cheung, C. K. Y., Wong, C. P. Y., & Wong, V. C. W. (2008). Psychological resilience and dysfunction among hospitalized survivors of the SARS epidemic in Hong Kong: A latent class approach. *Health Psychology*, 27(5), 659–667. <https://doi.org/10.1037/0278-6133.27.5.659>
- Bradbury-Jones, C., & Isham, L. (2020). The pandemic paradox: The consequences of COVID-19 on domestic violence. *Journal of clinical nursing*, 29(13-14), 2047–2049. <https://doi.org/10.1111/jocn.15296>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet (London, England)*, 395(10227), 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Campbell A. M. (2020). An increasing risk of family violence during the Covid-19 pandemic: Strengthening community collaborations to save lives. *Forensic Science International: Reports*, 2, 100089. <https://doi.org/10.1016/j.fsir.2020.100089>

- Cascella, M., Rajnik, M., Cuomo, A., Dulebohn, S. C., & Di Napoli, R. (2020). Features, evaluation and treatment coronavirus (COVID-19). In *Statpearls [internet]*. StatPearls Publishing.
- CCSE. (2020). Coronavirus COVID-19 Global Cases by the Center for Systems Science and Engineering (CSSE)-Covid Map. Retrieved from: 9.04.2020 <https://coronavirus.jhu.edu/map.html>
- Cheng, S., Wong, C., Tsang, J., & Wong, K. (2004). Psychological distress and negative appraisals in survivors of severe acute respiratory syndrome (SARS). *Psychological Medicine*, 34(7), 1187-1195. doi:[10.1017/S0033291704002272](https://doi.org/10.1017/S0033291704002272)
- Çobanoğlu, N. (2020). Bireysel, profesyonel, toplumsal, bilimsel ve siyasi etiği yeniden sorgulatan COVID-19 pandemisi [Ethics of individual, professional, social, scientific and politic is questioned by COVID-19 pandemi]. *Anadolu Kliniği Tıp Bilimleri Dergisi*, 25(Supplement 1), 36-42. <https://doi.org/10.21673/anadoluklin.709891>
- Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*. SAGE.
- DİB. (2020). *Din İşleri Yüksek Kurulu'ndan Cuma namazıyla ilgili açıklama*. Retrieved from: 08.04.2020 <https://www.diyaret.gov.tr/tr-TR/Kurumsal/Detay/29391/din-isleri-yukse-kurulundan-cuma-namazıyla-İlgili-acıklama>
- Doyumgaç, I., Tanhan, A., & Kıymaz, M. S. (2021). Understanding the most important facilitators and barriers for online education during COVID-19 through online photovoice methodology. *International Journal of Higher Education*, 10(1), 166-190. <https://doi.org/10.5430/ijhe.v10n1p166>
- Duan, L., & Zhu, G. (2020). Psychological interventions for people affected by the COVID-19 epidemic. *The Lancet Psychiatry*, 7(4), 300-302. [https://doi.org/10.1016/S2215-0366\(20\)30073-0](https://doi.org/10.1016/S2215-0366(20)30073-0)
- Eisenman, D. P., Cordasco, K. M., Asch, S., Golden, J. F., & Glik, D. (2007). Disaster planning and risk communication with vulnerable communities: lessons from Hurricane Katrina. *American Journal of Public Health*, 97 Suppl 1(Suppl 1), S109-S115. <https://doi.org/10.2105/AJPH.2005.084335>
- End Violence against Children. (2020). *Protecting children during the COVID-19 outbreak: Resources to reduce violence and abuse*. Retrieved from: <https://www.end-violence.org/protecting-children-during-covid-19-outbreak>
- Fang, Y., Zhe, D., & Shuran, L. (2004). Survey on mental status of subjects recovered from SARS. *Chinese Mental Health Journal*, 18(10), 675-677. Retrieved from: http://en.cnki.com.cn/Article_en/CJFDTotal-ZXWS200410000.htm
- Fineberg, N. A., Van Ameringen, M., Drummond, L., Hollander, E., Stein, D. J., Geller, D., Walitza, S., Pallanti, S., Pellegrini, L., Zohar, J., Rodriguez, C. I., Menchon, J. M., Morgado, P., Mpavaenda, D., Fontenelle, L. F., Feusner, J. D., Grassi, G., Lochner, C., Veltman, D. J., Sireau, N., ... Dell'Osso, B. (2020). How to manage obsessive-compulsive disorder (OCD) under COVID-19: A clinician's guide from the International College of Obsessive-Compulsive Spectrum Disorders (ICOCs) and the Obsessive-Compulsive and Related Disorders Research Network (OCRN) of the European College of Neuropsychopharmacology. *Comprehensive Psychiatry*, 100, 152-174. <https://doi.org/10.1016/j.comppsy.2020.152174>
- Fischer, M., Coogan, A. N., Faltraco, F., & Thome, J. (2020). COVID-19 paranoia in a patient suffering from schizophrenic psychosis - a case report. *Psychiatry Research*, 288, 113001. <https://doi.org/10.1016/j.psychres.2020.113001>
- Folkman, S., & Lazarus, R. S. (1984). *Stress, appraisal, and coping* (pp. 150-153). Springer.
- Galovski, T., & Lyons, J. A. (2004). Psychological sequelae of combat violence: A review of the impact of PTSD on the veteran's family and possible interventions. *Aggression and Violent Behavior*, 9(5), 477-501. doi: [https://doi.org/10.1016/S1359-1789\(03\)00045-4](https://doi.org/10.1016/S1359-1789(03)00045-4)
- Guardian. (2020). Turkey's Covid-19 infection rate rising fastest in the world. Retrieved from: 09.04.2020 <https://www.theguardian.com/world/2020/apr/07/turkeys-covid-19-infection-rate-rising-fastest-in-the-world>

- Ho, C. S., Chee, C. Y., & Ho, R. C. (2020). Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. *Annals of the Academy of Medicine, Singapore*, 49(3), 155–160. Retrieved from: https://www.annals.edu.sg/pdf/special/COM20043_HoCSH_2.pdf
- Ho, S. M. Y., Kwong-Lo, R. S. Y., Mak, C. W. Y., & Wong, J. S. (2005). Fear of severe acute respiratory syndrome (SARS) among health care workers. *Journal of Consulting and Clinical Psychology*, 73(2), 344-349. <http://dx.doi.org/10.1037/0022-006X.73.2.344>
- Horesh, D., & Brown, A. D. (2020). Traumatic stress in the age of COVID-19: A call to close critical gaps and adapt to new realities. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(4), 331-335. <http://dx.doi.org/10.1037/tra0000592>
- HSGM. (2020). Sağlık personeline yönelik el yıkama ve el dezenfeksiyonu rehberi. Retrieved from: 08.04.2020 <https://hsgm.saglik.gov.tr/depo/birimler/saglikli-beslenme-hareketli-hayat-db/Yayinlar/kitaplar/Beslenme-Bilgi-Serisi-1/saglik-personeline-yonelik-hijyen.pdf>
- Hua, J., & Shaw, R. (2020). Corona Virus (COVID-19) "Infodemic" and emerging issues through a data lens: the case of China. *International Journal of Environmental Research and Public Health*, 17(7), 2309. <https://doi.org/10.3390/ijerph17072309>
- Husaini, B. A., Moore, S. T., & Cain, V. A. (1994). Psychiatric symptoms and help-seeking behavior among the elderly: An analysis of racial and gender differences. *Journal of Gerontological Social Work*, 21(3-4), 177–195. https://doi.org/10.1300/J083V21N03_12
- Ingala Smith, K. (2020). *Counting dead women*. Retrieved from: <https://kareningalasmith.com/>
- Islam, M. S., Ferdous, M. Z., & Potenza, M. N. (2020). Panic and generalized anxiety during the COVID-19 pandemic among Bangladeshi people: An online pilot survey early in the outbreak. *Journal of Affective Disorders*, 276, 30–37. <https://doi.org/10.1016/j.jad.2020.06.049>
- Kagi, J. (2020). *Crime rate in WA plunges amid coronavirus social distancing lockdown measures*. ABC News Australia. Retrieved from: <https://www.abc.net.au/news/2020-04-08/coronavirus-shutdown-sees-crime-rate-drop-inwa/12132410>
- Kamer, E., & Çolak, T. (2020). What to do when a patient infected with covid-19 needs an operation: A pre-surgery, peri-surgery and post-surgery guide. *Turk J Colorectal Dis*, 30, 1-8. doi: [10.4274/tjcd.galenos.2020.2020-3-7](https://doi.org/10.4274/tjcd.galenos.2020.2020-3-7)
- Kang, L., Li, Y., Hu, S., Chen, M., Yang, C., Yang, B. X., Wang, Y., Hu, J., Lai, J., Ma, X., Chen, J., Guan, L., Wang, G., Ma, H., & Liu, Z. (2020). The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *The lancet. Psychiatry*, 7(3), e14. [https://doi.org/10.1016/S2215-0366\(20\)30047-X](https://doi.org/10.1016/S2215-0366(20)30047-X)
- Kendler, K. S., Thornton, L. M., & Gardner, C. O. (2000). Stressful life events and previous episodes in the etiology of major depression in women: an evaluation of the "kindling" hypothesis. *The American journal of Psychiatry*, 157(8), 1243–1251. <https://doi.org/10.1176/appi.ajp.157.8.1243>
- Lau, L. J., & Xiong, Y. (2020). Don't panic, be cautious, and together we can stop the coronavirus epidemic!. *Asia-Pacific Biotech News*, 24(Supp01), 90-107. doi: <https://doi.org/10.1142/S0219030320001202>
- Lazarus, R. S. (2006). *Stress and emotion: A new synthesis*. Springer Publishing Company.
- Lebow J. L. (2020a). Family in the age of COVID-19. *Family Process*, 59(2), 309–312. <https://doi.org/10.1111/famp.12543>
- Lebow J. L. (2020b). The Challenges of COVID-19 for divorcing and post-divorce families. *Family Process*, 59(3), 967–973. <https://doi.org/10.1111/famp.12574>
- Lee, S. A. (2020). Coronavirus anxiety scale: A brief mental health screener for COVID-19 related anxiety. *Death Studies*, 44(7), 393-401. doi: <https://doi.org/10.1080/07481187.2020.1748481>

- Lee, S. A., Mathis, A. A., Jobe, M. C., & Pappalardo, E. A. (2020). Clinically significant fear and anxiety of COVID-19: A psychometric examination of the Coronavirus Anxiety Scale. *Psychiatry research*, 290, 113112. <https://doi.org/10.1016/j.psychres.2020.113112>
- Li, S., Wang, Y., Xue, J., Zhao, N., & Zhu, T. (2020a). The impact of COVID-19 epidemic declaration on psychological consequences: A study on active weibo users. *International Journal of Environmental Research and Public Health*, 17(6), 2032. <https://doi.org/10.3390/ijerph17062032>
- Li, W., Yang, Y., Liu, Z. H., Zhao, Y. J., Zhang, Q., Zhang, L., Cheung, T., & Xiang, Y. T. (2020b). Progression of mental health services during the COVID-19 outbreak in China. *International Journal of Biological Sciences*, 16(10), 1732–1738. <https://doi.org/10.7150/ijbs.45120>
- Lopes, B., Bortolon, C., & Jaspal, R. (2020). Paranoia, hallucinations and compulsive buying during the early phase of the COVID-19 outbreak in the United Kingdom: A preliminary experimental study. *Psychiatry Research*, 293, 113455. Advance online publication. <https://doi.org/10.1016/j.psychres.2020.113455>
- Mahmud, M. S., Talukder, M. U., & Rahman, S. M. (2020). Does 'Fear of COVID-19' trigger future career anxiety? An empirical investigation considering depression from COVID-19 as a mediator. *The International Journal of Social Psychiatry*, 20764020935488. Advance online publication. <https://doi.org/10.1177/0020764020935488>
- Mak, I. W., Chu, C. M., Pan, P. C., Yiu, M. G., & Chan, V. L. (2009). Long-term psychiatric morbidities among SARS survivors. *General Hospital Psychiatry*, 31(4), 318–326. <https://doi.org/10.1016/j.genhosppsych.2009.03.001>
- Malecki, K., Keating, J. A., & Safdar, N. (2020). Crisis Communication and Public Perception of COVID-19 Risk in the Era of Social Media. *Clinical infectious diseases: an official publication of the Infectious Diseases Society of America*, ciaa758. Advance online publication. <https://doi.org/10.1093/cid/ciaa758>
- Matchan L. (2020, March 13). *With Americans hunkering down, some wonder if coronavirus could lead to a baby boom*. Retrieved from: <https://www.bostonglobe.com/2020/03/14/lifestyle/with-americans-hunkering-down-some-wonder-if-coronavirus-shutdowns-could-lead-baby-boom/>
- Mooney M. (2007). Professional socialization: the key to survival as a newly qualified nurse. *International journal of nursing practice*, 13(2), 75–80. <https://doi.org/10.1111/j.1440-172X.2007.00617.x>
- Mukhtar, F., & Mukhtar, N. (2020). Coronavirus (COVID-19): Let's prevent not panic. *Journal of Ayub Medical College Abbottabad*, 32(1), 141-144. Retrieved from: <http://www.ayubmed.edu.pk/jamc/index.php/jamc/article/download/7564/2863>
- NASA. (2014). The Dream of a Flying Car Getting Closer to Reality. Retrieved from: 8.04.2020 <https://www.nasa.gov/larc/the-dream-of-a-flying-car-is-getting-closer-to-reality>
- NASA. (2020). Could Future Homes on the Moon and Mars Be Made of Fungi? Retrieved from: 8.04.2020 <https://www.nasa.gov/feature/ames/myco-architecture>
- New Zealand Family Violence Clearinghouse (NZFVC). (2020). *Preventing and Responding to Family, Whānau and Sexual Violence during COVID-19*. Retrieved from: <https://nzfvc.org.nz/COVID%20-19/preve%20nting%20-respo%20nding%20-viole%20nce-COVID%20-19>
- NHS. (2020). How to wash your hands? Retrieved from: <https://www.nhs.uk/live-well/healthy-body/best-way-to-wash-your-hands/>
- Ophir Y. (2018). Coverage of epidemics in american newspapers through the lens of the crisis and emergency risk communication framework. *Health Security*, 16(3), 147–157. <https://doi.org/10.1089/hs.2017.0106>
- Pfefferbaum, B., & North, C. S. (2020). Mental health and the Covid-19 pandemic. *The New England Journal of Medicine*, 383(6), 510–512. <https://doi.org/10.1056/NEJMp2008017>
- Pfefferbaum, B., Schonfeld, D., Flynn, B. W., Norwood, A. E., Dodgen, D., Kaul, R. E., Donato, D., Stone, B., Brown, L. M., Reissman, D. B., Jacobs, G. A., Hobfoll, S. E., Jones, R. T., Herrmann, J., Ursano, R. J., & Ruzek, J. I. (2012). The H1N1 crisis: A case study of the integration of mental and behavioral health in

- public health crises. *Disaster Medicine and Public Health Preparedness*, 6(1), 67–71. <https://doi.org/10.1001/dmp.2012.2>
- Poate, S. (2020). 75% increase in domestic violence searches since Coronavirus. NBN News. Retrieved from: <https://www.nbnnews.com.au/2020/03/31/dvsearchescoronavirus/>
- Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *General Psychiatry*, 33(2), e100213. <https://doi.org/10.1136/gpsych-2020-100213>
- Reed, R. G., & Raison, C. L. (2016). *Stress and the immune system*. In *Environmental influences on the immune system* (pp. 97-126). Springer.
- Resmi Gazete. (2020). 20 Mart 2020 tarihli Cumhurbaşkanlığı genelgesi. Retrieved from: 08.04.2020 <https://www.mevzuat.gov.tr/MevzuatMetin/CumhurbaskanligiGenelgeleri/20200320-3.pdf>
- Roser, M., Ritchie, H., Ortiz-Ospina, E., & Hasell, J. (2020). Coronavirus disease (COVID-19)–Statistics and research. *Our World in data*. <https://www.sipotra.it/wp-content/uploads/2020/03/Coronavirus-Disease-COVID-19-%E2%80%93Statistics-and-Research.pdf>
- Rossmann, C., Meyer, L., & Schulz, P. J. (2018). The Mediated Amplification of a Crisis: Communicating the A/H1N1 Pandemic in Press Releases and Press Coverage in Europe. *Risk analysis : an official publication of the Society for Risk Analysis*, 38(2), 357–375. <https://doi.org/10.1111/risa.12841>
- Roy, D., Tripathy, S., Kar, S. K., Sharma, N., Verma, S. K., & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian Journal of Psychiatry*, 51, 102083. <https://doi.org/10.1016/j.ajp.2020.102083>
- Ruppert, F. (2008). *Trauma, bonding & family constellations: Understanding and healing injuries of the soul*. Green Balloon Publishing.
- Salzman, L., & Thaler, F. H. (1981). Obsessive-compulsive disorders: a review of the literature. *The American Journal of Psychiatry*, 138(3), 286–296. <https://doi.org/10.1176/ajp.138.3.286>
- Shafran, R., Coughtrey, A., & Whittal, M. (2020). Recognising and addressing the impact of COVID-19 on obsessive-compulsive disorder. *The lancet Psychiatry*, 7(7), 570–572. [https://doi.org/10.1016/S2215-0366\(20\)30222-4](https://doi.org/10.1016/S2215-0366(20)30222-4)
- Shariare, M. H., Parvez, M. A. K., Karikas, G. A., & Kazi, M. (2020). The growing complexity of COVID-19 drug and vaccine candidates: challenges and critical transitions. *Journal of Infection and Public Health*. <https://doi.org/10.1016/j.jiph.2020.12.009>
- Shechter, A., Diaz, F., Moise, N., Anstey, D. E., Ye, S., Agarwal, S., Birk, J. L., Brodie, D., Cannone, D. E., Chang, B., Claassen, J., Cornelius, T., Derby, L., Dong, M., Givens, R. C., Hochman, B., Homma, S., Kronish, I. M., Lee, S., Manzano, W., ... Abdalla, M. (2020). Psychological distress, coping behaviors, and preferences for support among New York healthcare workers during the COVID-19 pandemic. *General Hospital Psychiatry*, 66, 1–8. <https://doi.org/10.1016/j.genhosppsy.2020.06.007>
- Shevlin, M., McBride, O., Murphy, J., Miller, J. G., Hartman, T. K., Levita, L., ... & Bennett, K. M. (2020). *Anxiety, depression, traumatic stress, and COVID-19 related anxiety in the UK general population during the COVID-19 pandemic*. Retrieved from: <https://psyarxiv.com/hb6nq/download/?format=pdf>
- Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., & Benedek, D. M. (2020). Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. *Psychiatry and Clinical Neurosciences*, 74(4), 281–282. <https://doi.org/10.1111/pcn.12988>
- Steimer T. (2002). The biology of fear- and anxiety-related behaviors. *Dialogues in clinical neuroscience*, 4(3), 231–249. <https://doi.org/10.31887/DCNS.2002.4.3/tsteimer>
- Sungur, M. Z. (2006). The Role of cognitive and behavioural approaches in the conceptualization and treatment of anxiety disorders. *Turkiye Klinikleri Journal of Internal Medical Sciences*, 2(12), 81-88. Retrieved from:

<https://www.turkiyeklinikleri.com/article/en-anksiyete-bozukluklarinin-anlasilmasi-ve-tedavisinde-bilissel-ve-davranisci-modellerin-rolu-46277.html>

- Tam, C. W., Pang, E. P., Lam, L. C., & Chiu, H. F. (2004). Severe acute respiratory syndrome (SARS) in Hong Kong in 2003: stress and psychological impact among frontline healthcare workers. *Psychological Medicine*, 34(7), 1197–1204. <https://doi.org/10.1017/s0033291704002247>
- Tanhan, A. (2020). COVID-19 sürecinde online seslifoto (OSF) yöntemiyle biyopsikososyal manevi ve ekonomik meseleleri ve genel iyi oluş düzeyini ele almak: OSF'nin Türkçeye uyarlanması. [Utilizing online photovoice (OPV) methodology to address biopsychosocial spiritual economic issues and wellbeing during COVID-19: Adapting OPV to Turkish.] *Turkish Studies*, 15(4), 1029-1086. <https://dx.doi.org/10.7827/TurkishStudies.44451>
- Tanhan, A., & Strack, R. W. (2020). Online photovoice to explore and advocate for Muslim biopsychosocial spiritual wellbeing and issues: Ecological systems theory and ally development. *Current Psychology*, 39(6), 2010-2025. <https://doi.org/10.1007/s12144-020-00692-6>
- Tanhan, A., Arslan, G., Yavuz, K. F., Young, J. S., Çiçek, İ., Akkurt, M. N., Ulus, İ. Ç., Görünmek, E. T., Demir, R., Kürker, F., Çelik, C., Akça, M. Ş., Ünverdi, B., Ertürk, H., & Allen, K. (2021). A constructive understanding of mental health facilitators and barriers through Online Photovoice (OPV) during COVID-19. *ESAM Ekonomik ve Sosyal Araştırmalar Dergisi*, 2(2). Advance Online Publication. <https://doi.org/10.13140/RG.2.2.15257.13921>
- Taub, A. (2020). A new Covid-19 crisis: Domestic abuse rises worldwide. *The New York Times*, 6. Retrieved from: <https://chescocf.org/wp-content/uploads/2020/04/Domestic-Abuse-Rises-Worldwide-New-York-Times.pdf>
- Taylor, S. (2019). *The psychology of pandemics: Preparing for the next global outbreak of infectious disease*. Cambridge Scholars Publishing.
- Terry D. J. (1994). Determinants of coping: the role of stable and situational factors. *Journal of personality and social psychology*, 66(5), 895–910. <https://doi.org/10.1037//0022-3514.66.5.895>
- The Ministry of Health, (2020). Koronavirüs, Alacağımız Tedbirlerden Güçlü Değildir. Retrieved from: <https://www.saglik.gov.tr/TR,64383/koronavirus-alacagimiz-tedbirlerden-guclu-degildir.html>
- Tompkins, M. A. (2013). *Anxiety and avoidance: A universal treatment for anxiety, panic, and fear*. New Harbinger Publications.
- Ursano R. J. (2005). Preparedness for SARS, influenza, and bioterrorism. *Psychiatric services (Washington, D.C.)*, 56(1), 7. <https://doi.org/10.1176/appi.ps.56.1.7>
- Van Bavel, J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., ... & Drury, J. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, 1-12. doi:[10.1038/s41562-020-0884-z](https://doi.org/10.1038/s41562-020-0884-z)
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020b). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, 17(5), 1729. <https://doi.org/10.3390/ijerph17051729>
- Wang, G., Zhang, Y., Zhao, J., Zhang, J., & Jiang, F. (2020). Mitigate the effects of home confinement on children during the COVID-19 outbreak. *Lancet (London, England)*, 395(10228), 945–947. [https://doi.org/10.1016/S0140-6736\(20\)30547-X](https://doi.org/10.1016/S0140-6736(20)30547-X)
- Werden E. M. (2002). *Religious identity as a coping resource* [Doctoral dissertation]. Miami University.
- WHO. (2020a). *Clean hands protect against infection*. Retrieved from: 8.04.2020 https://www.who.int/gpsc/clean_hands_protection/en/
- WHO. (2020b). *Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV)*. Retrieved from: 8.04.2020

[https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))

- WHO. (2020c). WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020. Retrieved from: 8.04.2020 <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The lancet. Psychiatry*, 7(3), 228–229. [https://doi.org/10.1016/S2215-0366\(20\)30046-8](https://doi.org/10.1016/S2215-0366(20)30046-8)
- Yıldırım, & Şimşek, H. (2016). *Sosyal bilimlerde nitel araştırma yöntemleri* [Qualitative research methods in social sciences] (10 ed.). Seçkin Publishing.
- Yıldırım, M., Arslan, G., & Wong, P. T. (2021). Meaningful living, resilience, affective balance, and psychological health problems among Turkish young adults during coronavirus pandemic. *Current Psychology*, 1-12. DOI: [10.1007/s12144-020-01244-8](https://doi.org/10.1007/s12144-020-01244-8)
- Yıldırım, T. (2006). *Sosyal kaygısı yüksek üniversite öğrencilerine uygulanan kısa süreli acil psikoterapinin etkililiği. (The examination of the effectiveness of brief intensive emergency psychotherapy on university students with social anxiety)* [Doctoral dissertation]. Hacettepe University, Ankara.
- Yu, H. Y. R., Ho, S. C., So, K. F. E., & Lo, Y. L. (2005). Short Communication: The psychological burden experienced by Hong Kong midlife women during the SARS epidemic. *Stress and Health: Journal of the International Society for the Investigation of Stress*, 21(3), 177–184. <https://doi.org/10.1002/smi.1051>
- Yueqin, H., Weimin, D., & Zhaorui, L. (2003). Psychosocial Aspects in Three Universities during SARS Epidemic in Beijing. *Chinese Mental Health Journal*, 17(8), 521–523. Retrieved from: http://en.cnki.com.cn/Article_en/CJFDTotat-ZXWS200308001.htm
- Zahran, S., Shelley, T. O. C., Peek, L., & Brody, S. D. (2009). Natural disasters and social order: Modeling crime outcomes in Florida. *International Journal of Mass Emergencies and Disasters*, 27(1), 26-52. Retrieved from: <https://pdfs.semanticscholar.org/89ab/53fc6be49be8a6806a60cf912f9070cc15a2.pdf>
- Zaleski, Z. (1996). Future anxiety: Concept, measurement, and preliminary research. *Personality and Individual Differences*, 21(2), 165–174. [https://doi.org/10.1016/0191-8869\(96\)00070-0](https://doi.org/10.1016/0191-8869(96)00070-0)