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Determination of resilience factors in individuals who tested COVID-19 positive

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ABSTRACT

The main purpose of this study was to determine the protective factors that can aid people in their recovery or help maintain their well-being in the face of collective adversity, in this case, the COVID-19 pandemic, and to examine how these factors can be further strengthened. The study included 89 participants from 14 different cities in Turkey, ranging in age from 18 to 70, 46 of them men and 43 women. In light of the findings of the study, it can be said that psychosocial support and re-adaptation programmes are needed to ease the social-emotional burden of living through a pandemic on individuals (especially those who survived the virus) even after the COVID-19 pandemic ends.

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With the rapid spread of COVID-19 and increased mortality, changes have occurred in almost everyone's lives; and the pandemic was a test for their levels of resilience. Considering the circumstances, people are expected to be affected negatively. The developments that occurred due to the epidemic and the anxiety brought about by the fear of getting sick negatively affected the mental health and well-being of individuals (Güngör et al., 2020; Ho et al., 2020). This highlights the relevance of studying protective factors, a concept that emerged as a result of resilience studies (Demir & Aliyev, 2019; Karaırmak, 2006).

The negative effects of epidemics on mental health can be even more prolonged and serious than the effects on physical health (Taylor et al., 2020). For this reason, understanding the psychological consequences of pandemics and measures that can be taken to promote resilience in the population is a high priority. Restrictions placed on attending school, work, socialising, visiting places of worship and celebrating religious and national holidays collectively all can have serious effects on mental health.

SARS and MERS, epidemic infectious diseases similar to COVID-19, likewise had significant effects on individuals, societies and economies on a global level, not limited to the related physical disorders (Blendon et al., 2004; Wang et al., 2020). These impacts include debilitating fear (e.g. of infection or death), mental and physical impairment, and social stigma and discrimination (Reference Group on Mental Health and Psychosocial Support in Emergency, 2020). Numerous studies have shown that infectious diseases can increase mental problems and risk factors, such as anxiety, including death anxiety, depression and stress (Dorman-Ilan et al., 2020; Erdoğdu et al., 2020; Güngör et al., 2020; Ho et al., 2020; Karaman et al., 2021; Lee, 2020; Wang et al., 2020). In particular, these fears were found to be greater in infected individuals, as well as in their relatives. However, little is known

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about how people approach this situation, and what factors might protect them from these adverse outcomes. The current study, therefore, addresses this gap in the literature to reveal what sources of resilience people draw in case of disease.

The resilience model

People may face many undesirable risk factors, such as war, poverty, natural disasters, family break-up, and serious disease throughout their lives. While some individuals react to these negative experiences with mental distress (Sim et al., 2010); some individuals can maintain their normal development and adapt positively to risks (Masten, 2001; Werner, 1993). In this context, adaptability in the face of risks can be explained by the concept of "resilience".

Resilience is a dynamic process that allows individuals to maintain their normal development under the influence of protective factors, and to adapt positively by overcoming experiences that pose a risk to their adaptation (Luthar, 2000; Masten, 2001; Masten et al., 1990). Garmezy (1991) stated that resilience should not be conceptualised as remaining impervious in the face of stress. Rutter (2006) defined resilience as a concept that emerges as a result of the interaction between risk and protective factors. Some researchers (Luthar, 2000; Olsson et al., 2003; Ungar, 2012) see resilience as a result of the interaction between individual and environmental factors (family, society, culture). Connor and Davidson (2003) defined resilience as a personal trait. Based on these definitions, the concept of resilience can be addressed in three dimensions (Demir & Aliyev, 2019; Karaırmak, 2006; Richardson, 2002; Rutter, 1999): (1) Risk factors, (2) Protective factors, and (3) Adapting positively by overcoming stressful or risky situations.

Gizir (2007) considered risk factors as having (a) an *individual* dimension (such as premature birth or chronic disease), a *familial* dimension (such as divorce, parental psychopathology or death); and an *environmental* dimension (such as a low socio-economic background, war or disaster). In contrast, protective individual, familial and environmental factors can alleviate or prevent the negative and destructive effects of stress and difficulty caused by risk factors, improving health, harmony and individual competencies (Carriedo et al., 2020; Garmezy et al., 1984; Gizir, 2007; Karaırmak, 2006; Luthar & Cicchetti, 2000). Considering the balance between risks and protective factors, the more risk conditions present for the individual, the more protective factors are needed (Werner, 1989).

Betancourt et al. (2013), based on 29 articles addressing mental health and resilience in families and children affected by HIV/AIDS, examined protective factors associated with resilience at the levels of the individual, family and society. Protective factors affecting resilience at the individual level included coping with stress, self-efficacy, patience, self-esteem, positive future expectations, future hope and perception of control. At a family level, such factors included parental monitoring, parental commitment, family support, support from family and peers, housing conditions, and physical and emotional assistance provided by society.

Research on pandemics and resilience

Studies of the relationship between resilience and psychological symptoms and other negative mental health reactions that occur in response to pandemics have also been reported. For example, a meta-analysis by Preti et al. (2020) examined the psychological effects of various pandemics (SARS, MERS, Ebola, H1N1 and COVID-19) in healthcare workers, and reported that employees with resilience characteristics showed relatively fewer psychopathological reactions.

Resilience was examined as a mediator variable in the relationship between perceived stress during the MERS pandemic and psychosocial well-being. Resilience partially mediates the relationship between psychosocial well-being and stress. It has been shown that the higher the perceived stress, the less the resilience decreases, so when stress exerts negative effects on psychosocial well-being, resilience can indirectly have a positive effect (Kwon et al., 2017). Similarly, in studies conducted during the COVID-19 outbreak, there are negative relationships between resilience and

negative mental health (Arslan et al., 2020; Satici et al., 2020). As previously observed, resilience plays an important protective role against negative psychological effects and pandemic threats (Kimhi et al., 2020; Luceño-Moreno et al., 2020; Yıldırım & Solmaz, 2020).

The present study

This study aimed to determine the protective factors that help individuals and their families maintain their well-being in the face of difficult situations. It also examines how these factors can be further strengthened. A particular focus has been placed on adverse conditions that affect society collectively, such as major disasters. Specifically, this study aimed to determine the resilience levels and strengths of individuals diagnosed with COVID-19 by examining the current and anticipated problems and effects caused by the global COVID-19 pandemic.

To conduct this study, the following questions were considered:

(1) What difficulties and obstacles (related to health, finance, family relations, relationships, education, and business) do people who test positive for COVID-19 have to face and what is their experience with dealing with this process?
(2) What are the thoughts and opinions of individuals who test positive for COVID-19 during the coronavirus pandemic?

Method

In this study, the aim was to determine the resilience factors that may assist those who tested positive for COVID-19 during the COVID-19 pandemic in their recovery, as well as any factors that may support their well-being as an individual or family in the face of difficult situations. Furthermore, how these factors can be further strengthened was analysed. For this purpose, the research was designed as qualitative research. The study was conducted using the phenomenology design, a qualitative research design. The Scientific and Technological Research Council of Turkey supported the study under the condition of the ethics board's approval. The ethical approval of the study was granted by the relevant university's ethics board and the Ministry of Health. First, a proposal including all necessary forms was submitted to the ethics board. Second, the forms were sent to the Ministry of Health General Directorate of Public Health for review. After the directory approved the study, the data collection process commenced.

Procedures

The data were collected using the semi-structured interview technique employed in qualitative research designs. The interviews were conducted by two researchers in the study. Before starting the interviews, a pilot study was conducted and the possible interpretations of the interview questions were tested for both the interviewers and the participants. Participants were reached through announcements via the university website, social media accounts and personal connections. People who got and recovered from COVID-19 were included in the study. Those who were still COVID-19 positive and/or in quarantine were excluded from the study. The interviews lasted between 10 and 45 min. The data in the study included participants who were affected by COVID-19 in the first wave of the pandemic. At the time of data collection, the second wave of the pandemic had not yet begun.

Trustworthiness

To ensure trustworthiness, the transcribed interview recordings were sent to the participants allowing for errors to be corrected. Thus, the accuracy and precision of the information were checked. In addition, to ensure consistency in transcribing the audio recordings obtained, segments of the

recorded interviews were analysed twice and the consistency was tested. Finally, a constant comparison was made to ensure reliability in the processing of categories. With this method, interview data belonging to the same person encoded in the same category were compared to ensure the consistent encoding of data (Creswell et al., 2007).

Participants

A total of 89 people participated in the study (Male = 46, Female = 43). The research group included participants from 14 different cities. Participants' ages ranged from 18 to 70. The employed participants reported 32 different professions, while the unemployed group included retirees, students and housewives. 27 of the participants were single while 59 were married. Three participants were widows. The number of children of the participants ranged from one to eight, with the number of school-age children varying between one and four.

Participants in the research group experienced COVID-19 in three different settings: (1) At home (53 participants); (2) In hospital (33 participants); (3) In intensive care units (3 participants).

Measure

The researchers developed the "Resilience Interview Form in the COVID-19 Pandemic Process", used to collect data, based on the resilience model focusing on protective factors (Gizir, 2007; Luthar & Cicchetti, 2000; Rutter, 2006). The interview form was prepared based on the relevant literature review and the opinions of field experts. The aim was to identify the difficulties experienced by people diagnosed with COVID-19 and any resources used to overcome related difficulties. In the pilot implementation, interviews were conducted with two individuals diagnosed with COVID-19 and the forms were finalised by ensuring consistency throughout the interviews. A sample question that addressed individual difficulties was: "What kind of health-related difficulties have you experienced during the coronavirus pandemic?" Another question was asked to determine individual, familial and social protective factors; "What resources helped you be strong and overcome the difficulties and obstacles you faced during the coronavirus pandemic?"

Analysis and interpretation of data

The data obtained from the interviews were analysed in four stages in accordance with the purpose of the research and the predetermined phenomenological pattern. These stages were: (1) coding, (2) finding themes, (3) organising codes and themes, and (4) defining and interpreting findings (Yıldırım & Şimşek, 2016). Based on the "Resilience Model", which is the reference point of the research, the data obtained from the interviews were coded under three headings as protective factors, risk factors, and positive outcomes to overcome adverse situations in people with a positive history of COVID-19. Then, themes, sub-themes and codes were created using the analysis carried out through the MAXQDA programme. The obtained codes were examined by the research team, the themes and codes were given their final form, and the findings of the research were defined and interpreted.

Results

The resilience experiences of the 89 individuals diagnosed with COVID-19 can be divided into four main themes: protective factors, risk factors, positive outcomes and emotions (see Table 1 and Figure 1). Protective factors were further divided into internal and external protective factors. Risk factors include social exclusion, disruption in education in the family, and financial problems. While strengthening family relationships, changing meaning in life, and discovering development

Table 1. Number of the participants that endorsed each of the themes.

	Home care	Hospital care	Intensive care
Theme/code			
Protective factors	**94**	**59**	**6**
Internal	17	14	2
Spirituality	9	7	2
Hope	4	5	–
Staying active	4	2	–
External	77	45	4
Social support	71	39	2
Family ties	6	5	2
Healthy life choices	–	1	–
Risk factors	**12**	**12**	**1**
Social exclusion	5	6	1
Financial problems	5	4	–
Disruptions in education	2	2	–
Positive outcomes	**18**	**25**	**–**
Self-betterment	8	12	–
Strengthening family relations	6	8	–
Change in life goals	4	5	–
Emotions	**63**	**35**	**3**
Fear/Anxiety	50	26	3
Shock	4	5	–
Despair	5	3	–
Sadness	4	1	–
Total	187	131	10

opportunities were among the positive outcomes, and the most intense emotions experienced in the process were fear and anxiety.

Protective factors

Internal protective factors

Internal protective factors consist of spirituality, hope and staying active. Of the three subcategories, spirituality is the one with the highest density.

Spirituality. Spirituality supported the participants in this process and helped them overcome any difficulties. For example, a participant emphasises that his belief and spirituality keep him alive, "*I am a very strong person and I am religious. If I were to die tomorrow, I would have nothing to do now. My self-confidence and spirituality kept me strong*". Another participant states that her belief was the most important factor for her while she was ill, "*My belief, my husband's love for me, my strong relationship with my family, I felt very strong spiritually. My belief in destiny was also effective … This facilitated my treatment process*".

Hope. The participants who dreamed of the future overcome the disease more easily.

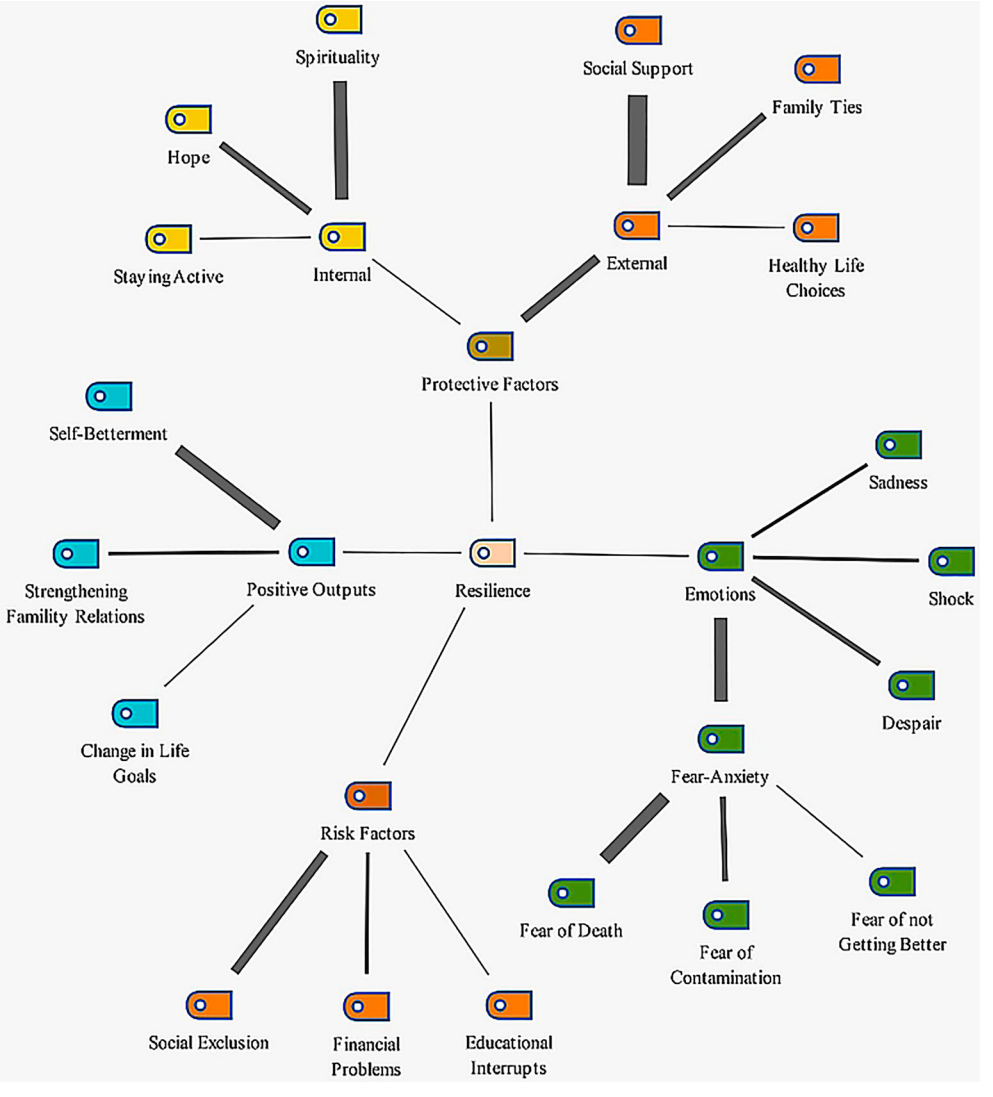
> "*I thought of how I was going to live my life when I got out. I thought of making my dreams come true. I have a dream to buy a car and travel. At that time, I realised that this world was empty. I realised that death is near and that I should be happy*", "*After the illness, I decided to make more memories. This process also affects people's hopes for the future. I thought I would pay more attention to my family's health. In this process, I understood the value of my loved ones more*".

Another role of hope is that the participants kept believing that their health would improve.

Staying active. Participants who were active and used positive thoughts as a protective factor thought that good things will happen in their lives despite any illness.

> "*I always thought that I will defeat the virus … I believe that in my normal life, diseases can be overcome through positive thoughts. I also stood firm during my time at home. I did things at home to keep myself busy without overwhelming myself with negative thoughts. I watched movies and worked. I pretended that my wife and children were on vacation and I was at home". "I gave myself a boost to get over this. I thought I would heal in the best way possible without infecting others*".

Figure 1. Resilience experiences of people who had COVID-19.



Another participant stated that she kept herself away from bad thoughts by combining optimism with healthy lifestyle choices in this process.

External protective factors

External protective factors consisted of social support, family ties and healthy lifestyle choices. Social support in itself consisted of social support from family, friends and the community. Social support was the external factor with the most influence.

Social support. Participants reported that being with their families during their illness and communication as a factor that kept them strong throughout this process.

> "*After all, embracing and caring for my family and being taken care of myself makes me feel better. The family ties became stronger, albeit out of necessity. This also made me feel good. It was also good for our close circle to make phone calls and support each other*".

Participants who stated that they were strengthened by their family in this process also stated that this helped them survive. "*I clung to my family's presence. My mother and my sisters met every day. Their support made me strong*". Another reoccurring theme was social support received from the spouse. Participants emphasised that they felt better and got through the process more easily with the support of their spouses;

> "*My wife and my family were very supportive. They motivated me by always saying you're okay, you don't have a problem. We were constantly video-chatting. They didn't make me feel lonely. I thought I would get through with God's will, and I felt better when the course of the disease did not worsen*".

Another social support mechanism that the participants noted was support from friends. A participant who emphasised the support received from their friends expresses his views as follows; "*I felt the support of my friends a lot during this process. Maybe it doesn't make sense, but when I was in quarantine, I was very bored and my friends … made me happy. They made me feel better … spiritually*".

Another social support mechanism that had a protective role on the participants in the COVID-19 process was the support received from the community. The community consisted of individuals such as neighbours and relatives. The interest and support shown by relatives and neighbours were one of the factors that kept the patient alive; "*I don't know the neighbours because I just moved. But my relatives motivated me a lot. They always called and asked how I feel*". Participants were supported morally in this process; "*Neighbours and relatives called, asked, supported*" as well as provided for their physical needs; "*We received support from our community in terms of food and beverage*".

> "*Our relationship with our neighbours is excellent. [My family was] in quarantine for 14 days while I was in the hospital. During this period, my neighbours met their needs. We felt their support in this regard. I felt that I was not alone and that I was loved".*

Family ties. Another external protective factor that kept patients alive was family ties. Strong familial ties played an important role in surviving the disease; "*Being a mother kept me alive. I thought I should return to my life thinking of [my childrens'] existence*". These statements showed that the bond established with children was an important factor. The statement of another participant also emphasised the role of children in this process;

> "*I was comfortable because my children were with me. I would have been more upset if my daughter was in quarantine at university, so far from me. I had to recover for my kids. If my condition was bad, they would be affected too. That's why I felt compelled to stand up straight. I also found solace in thinking of the people … who are in more difficult situations than me*".

Healthy life choices. The last of the external protective factors were healthy lifestyle choices. Participants emphasise that having healthy lifestyle choices supported them to overcome the disease; "*I drank plenty of water. My daughters told me to watch my diet so, I ate lots of fruit*". Another participant stated that she was trying to keep her immune system strong while other participants emphasised the importance of a healthy diet; "*I also think we can get over it more easily by eating immune-boosting food*".

Risk factors

Three different risk factors were also observed: social exclusion, disruptions in education and financial problems.

Social exclusion. Social exclusion was the most intense risk factor. Participants were saddened by the level of exclusion after recovering from COVID-19; "*My sister did not accept me. She didn't want to see me even after the test came out negative … Even now we don't see each other*". "*Our neighbours avoided us like the plague when we first recovered. But I've never had a problem with friends and relatives*". Labelling, especially by neighbours and relatives, had a detrimental effect on participants; "*We have been labelled by some of our relatives and neighbours. Even if your test is negative, they constantly put psychological pressure by warning you not to go out or infect anyone. This is a little tiring*". Some participants stated that they had to hide their illness, especially to avoid social exclusion;

"*I did not tell anyone except my family. I told them my husband went on vacation. My neighbours are very curious. They avoided me when they found out. I have a prying neighbour, I think she found out. She was very rude when she saw me. She never asked me about my condition. My family helped me*".

The extent of social exclusion led to COVID-19 patients being targeted and perceived as criminals.

"*A journalist friend took a photo of my workplace and where I live and posted it on social media. I was the first to be infected in this district, it made me look a bit like a bogeyman. He targeted me which was bad*".

Financial problems. Another risk factor that participants infected with COVID-19 had was financial problems. Quarantine periods had the greatest deleterious effect, especially for businesses.

"*I was treated in the hospital … for 20 days. My business suffered and this was a financial burden. After I was discharged from hospital, I had to quarantine at home for 14 days and I had some trouble since I could not work during this time*". "*The state covered our health expenses. But because my two brothers were tradesmen, they had to close the shop for two months. This put our finances in trouble*".

Another situation that caused financial problems was that participants did not receive a salary during their illness. This situation also affected their diet, causing another risk factor. A participant who could not get a salary speaks of their experience as follows;

"*I found out that I was positive three days after starting work. Naturally, I couldn't go to work and therefore they didn't pay my salary. I was waiting for that salary, so I had to postpone my debts for a month*".

Disruptions in education. Another risk factor was the disruption in education in families. Children were negatively affected by the interruption to their education and the transition to distance learning due to COVID-19;

"*My little daughter, a middle school student, had already started distance learning. But she never followed her lessons. She always cried until she got home. My older daughter is a senior university student, studying in Nizip. When they were on vacation, she came home from university. She could not graduate this year because she … failed a few modules*".

In another example, one of the participants stated that they gave up enrolling their child in the first grade due to COVID-19; "*We have decided not to enrol my child in primary school … not because of my illness but because of the pandemic*".

Positive outcomes

Participants stated that they have experienced positive outcomes from the pandemic. These include self-betterment, a change in life goals and strengthening family relationships.

Self-betterment. Participants stated that they wanted to use their time more effectively during and after the pandemic.

"*I wanted to return to our old situation as soon as possible. Of course, my energy unavoidably dropped during this period, but this time, I looked for ways to spend time in different ways. I studied, read books, and watched movies. Actually, it wasn't a bad time for me*".

Another participant similarly evaluated the opportunities where he could better himself and have fun;

"*I had the opportunity to spend time at home, for example, I had the opportunity to do various things. I watched documentaries, read about them etc. I was obsessed; they were good for me. I was interested in things not related to corona. In other words, entertainment content etc. which were things I could not normally do. This was good for me*".

Strengthening family relations. Participants expressed that after COVID-19, they established better relations with their families; "*We were positively affected because people understood the value of some things. I not only appreciated my wife more but also my mother, father, friends*". Another participant who stated that she understood the importance of being a family explained her thoughts in the following words; "*It makes me feel better when my family embrace, care for*

each other and take care of me. The family ties became stronger, albeit out of necessity. This also made me feel good". The pandemic also led to families spending more time together. The positive outcomes of this situation were reflected in family relations.

A change in lfe goals. The pandemic allowed some participants to re-envision their lives and develop new goals.

> "*Of course, there were some things that I couldn't do. I said I would do them when I got out. I wanted to have a child. Your family is with you in these cases. I am trying to enjoy life; in the past I was anxious*".

Another participant emphasised that their perspective on life has changed, especially on health; "*I am thankful that I got through such a virus. I said I would try to be more careful about my health. Your perspective on life changes a little*". One participant shared how their life will change from now on "*I realised that life is too short and I would like to invest more in myself*". This process has also contributed to the participants' perception of life in a more positive way.

Emotions

Another area analysed within the scope of the research were the emotions felt by individuals with COVID-19. Among these emotions, fear stands out as the most intensely felt. Fear consists of the subcategories of fear of death, fear of infecting other people, and fear of not being able to recover. Along with fear, the participants experienced feelings such as helplessness, confusion, sadness, guilt, indifference and frustration.

Fear/anxiety. The most intense fear experienced by the participants was the fear of death.

> "*You look at the news, tens of hundreds of people are dying. That's why the first thing that comes to mind is death. It was always said that we were in the risk group by age. The more you look at them, the more you think of nothing but death*".

Another participant stated that she was afraid that she would die alone because she was isolated during the illness process; "*Worst of all, I thought I would die alone. This thought was the one that upset me the most*". Fear of death was common, especially in participants with chronic diseases. News and comments on television and social media were among the factors that increased the fear of death in participants. In addition, the participants were not only afraid of their death but also concerned about the possibility of family members dying.

Another fear experienced was the fear of infecting people, particularly family members. "*The feeling of fear was also the fear of infecting my children and others*". Having chronic diseases in the family increased this fear; "*We also live with my mom and dad and they have heart disease. This situation made me very nervous. I was worried that I would infect my 9-year-old son and 1.5-year-old daughter and parents*".

Another type of fear experienced by the participants was about not being able to recover. "*How will my body react; will I get worse? … I was thinking that after the seventh-eighth day I would get worse. While I was waiting for those days, I got a lot of headaches on the eighth day*". Another participant thought that her illness will progress and the process will get much worse; "*I thought whether my illness would progress. Will they take me to intensive care?*" In participants with a chronic illness, the fear of not being able to recover further increased.

Desperation. Participants felt helpless after catching COVID-19;

> "*My daughter cannot understand, but my son was aware of everything. It was very difficult to explain it to him. He would not accept it and cried a lot. The more I saw this situation, the more helpless I felt*".

Desperation was also noted at funerals. Participants who could not attend the funerals of their relatives due to restrictions were in intense despair;

> "*When my father passed away, I could not attend his funeral because we stayed in quarantine for 14 days after leaving the hospital … [M]y father's brother did not attend the funeral … nobody even read him a prayer. A hodja did not even come and do funeral procedures. What if death was the order of Allah?*"

A different participant thought that the disease would find him somehow and feels helpless against this situation. "*I live in Ankara. Now almost everyone has it here. I had no fear or anxiety because almost everybody around me is contaminated. I thought it was the inevitable end*".

Shock. Participants stated that they did not expect to be infected with the disease and were shocked when they found out; "*I was shocked when I found out I was positive. I was not expecting that*". This confusion was felt more so by participants who did not show symptoms. "*There is confusion. Because I didn't expect it. I didn't have anything serious in terms of symptoms, I thought it was something else", "I was astonished because I didn't feel sick*". Another participant stated that she was very careful, especially because she had a chronic illness, and that despite the precautions she took, she was shocked to catch the virus; "*Since I have a chronic illness, I have been very careful during the pandemic. Despite all these measures, the illness shocked me*".

Sadness. Having the disease upset the participants. "*With the outbreak of the virus, pessimism affected us", "I felt disappointment and sadness*". This sadness caused depression in participants even though they did not have any physical symptoms; "*I had a breakdown even though I felt nothing*".

Discussion

The current study aimed to identify the protective factors that may affect people's recovery and help maintain their well-being in the face of difficult situations. It also aimed to examine how these factors can be further strengthened after major disasters such as COVID-19. For this purpose, face-to-face and telephone interviews were conducted with 89 individuals living in Turkey who tested positive for COVID-19. In the study, based on the resilience model, it was revealed that the resilience experiences of people who got sick and recovered are protective factors, risk factors, positive outcomes and emotions.

The results showed consistency with the three dimensions of the concept of resilience (1. Protective factors, 2. Risk factors, 3. Positive outcomes) as well as the "Emotions" dimension. One of the most important findings of the study is that the participants are aware of the existence of "Protective Factors" that help them to sustain themselves psychologically. As stated in the literature, protective factors appear as internal and external protective factors (Barnová & Tamášová, 2018; Lösel & Bender, 2003), which were evident in this study.

By examing the internal protective factors, we see that "spirituality" was crucial for the participants. Many infected individuals stated that their only internal protective mechanism was their religious and spiritual beliefs. In studies on the effects of spirituality in the health system (Boztilki & Ardıç, 2017; Horozcu, 2010; McSherry & Ross, 2010), it was stated that spirituality is a structure that positively affects the mental health of individuals. In the recent study of Kasapoğlu (2020) examining the effects of spirituality on anxiety, uncertainty and psychological resilience, similar results to the findings of the present study were revealed. Following a study with 565 participants, Kasapoğlu (2020) claimed that high spirituality decreases anxiety, increased resilience and indirectly reduced intolerance to uncertainty.

In our study, the goal and motivation of individuals with COVID-19 is to get better. Individuals' greatest hopes were to recover and return to their old lives, to be able to go about their daily routines and spend time with their loved ones. Hope is the only inner force that keeps participants alive during illness. Although spirituality is the dominant internal protective factor, it contains hope at its core; the participants turn to a power beyond themselves and their existence. Participants hope that the old days will return and that they will recover. Although the return of the old days remains uncertain, hope serves as the light at the end of the tunnel. This finding obtained in the present study also overlaps with the findings in the literature. For example, in a recent study conducted with 1,623 participants during the pandemic on hope and well-being (Counted et al., 2020), it was found that the well-being of patients with high hope levels are also high, and hope positively affects well-being through spirituality.

Another important dimension of internal protective factors was staying active. Trying to stay active was frequently used by the participants in the same context as hope. Participants hoped to be cured of the disease and had optimistic thoughts about the future. An active lifestyle was used by the participants as a healing force. Participants tried to protect themselves from bad thoughts caused by COVID-19. Despite bad things, they thought good things would happen in their lives and dreamt of good days with their families. An active lifestyle has been used as an anxiety-reducing protective factor. This finding is also supported by studies in the literature. In a study with 1,795 participants in Spain (Carriedo et al., 2020), researchers found that people who were quarantined but regularly engaged in activities and tried to stay in shape were found to have a higher level of resilience, optimism, control and self-efficacy.

Another dimension of protective factors in the study was external protective factors. External protective factors expressed by the participants in order of frequency were social support, family ties, and healthy lifestyle choices, respectively. Social support consists of actions or behaviours that show that others care about and value the infected individual. In our study, the participants separated social support as that received from family, friends and the community. The themes we obtained from the participants also fit the social support model (Zimet et al., 1988). Participants stated that the social support they received from their families was particularly meaningful. During their illness, the symptoms of fatigue, muscle aches, weakness, anorexia and high fever caused the participants to be unable to take care of themselves, and at this point, spouses, parents and siblings stepped in. Support from friends as well as family meant a lot to the participants. In cases of illness, people show not only physical and biological symptoms but also emotional symptoms (Brewis et al., 2020). Especially in cases of infectious disease, communication with people is reduced and individuals are isolated (Seifert et al., 2020). At this point, social support from friends is an important protective factor. Finally, the participants mentioned the importance of social support from their communities. Particularly, the interest shown by neighbours and relatives helped the participants. Similar results have been reported in the literature. For example, El-Zoghby et al. (2020) claimed that COVID-19 had a significant effect on psychological symptoms and social support in their study with 510 participants in Egypt. In the study, it was reported that married and female participants received more support from their families.

Another external protective factor was healthy lifestyle choices and the participants stated that they made changes in their eating patterns that helped them overcome the disease. Examples include drinking more water, eating more fruits and vegetables and consuming foods that strengthen immunity. A study by Rishi et al. (2020) showed that not every individual who was diagnosed with COVID-19 in India had access to therapeutic drugs. However, he claimed that a plant-based fibre-rich diet is one of the important factors behind the low mortality rate. Similarly, the fact that the participants in our study consumed more vegetables and fruits and ate at home constitutes an external protective factor against the disease.

The second dimension of resilience was risk factors, which were divided into social exclusion, financial problems and disruption in education in the family. Among these, social exclusion was expressed most intensely. Participants stated that from the moment they got the disease, others treated them like a "plague", stigmatised them and did not want to meet with them even after they recovered. People had to hide their illnesses to avoid social exclusion. This caused other problems: the risk of contamination to others. Brewis et al. (2020) stated that stigmatisation and social exclusion increase the rate of disease spread because people avoid testing, hide their diseases or refuse treatment to avoid social exclusion. Another frequently expressed risk factor is financial problems. One of the features that distinguish COVID-19 from other pandemics was the lockdowns in the production, tourism and service sectors. After the WHO declared the pandemic, many countries went into lockdown, travel between countries stopped, workplaces were closed and people lost their jobs. In Turkey, to reduce the economic impact of the pandemic on people, the government postponed tax payments, prohibited dismissals and reduced the policy interest rate. However, tradesmen, business owners and workers have all stated that their work was disrupted

during the quarantine and treatment period, leading them to experience financial difficulties and lose their income. Bozkurt (2020b), in his study on the impact of the pandemic on the economy and productivity, claimed that the most severely affected by the pandemic were the poor, female workers and disadvantaged groups.

Finally, another risk factor expressed by the participants was a disruption in education in the family. As in many countries around the world, both primary and secondary education and universities in Turkey switched to distance learning. This situation caused serious disruptions in education in March and after the beginning of the pandemic. One of the most important reasons for this is that the current technological infrastructure is not suitable for training such large groups. Some participants stated that they did not enrol their children in 1st grade due to the pandemic. Bozkurt (2020a) claimed in his study that the pandemic has changed and will change education paradigms all over the world. In another study, Can (2020) stated that "the education system should be strengthened in terms of infrastructure, access, security, content, design, implementation, quality, legislation and pedagogically" (p. 11) to increase the quality of the distance learning process and to eliminate the concerns of families. COVID-19 is being called the greatest disaster faced by humanity since World War II (Bozkurt, 2020b). However, some crises bring new opportunities.

According to the results obtained in our study, another factor of resilience was positive results. Positive outcomes appear in the form of self-betterment, strengthening of family relations and a change in life goals. The most expressed positive outcome is self-betterment. Participants stated that they were immersed in the flow of life before the pandemic, they did not spare enough time for themselves and their families, and that they postponed their goals. Participants with the disease had the opportunity to devote more time to themselves and to better themselves culturally and intellectually. When examining the literature, no research can be found about self-betterment during the pandemic. Most of the research is on the development of educational opportunities (Sarı & Nayır, 2020), the development of health systems (Shalev & Shapiro, 2020), and the diversity of economic opportunities (Jordà et al., 2020). In this sense, this finding obtained from the present study is valuable. It is also an indication that people can glean some good from a bad situation in social and psychological terms. Another positive outcome of our findings is a change in life goals. Participants questioned their goals and made new plans for after their recovery. Emanuel et al. (2020) stated in their case analysis study that existential maturity was an important source of power in the pandemic period. Especially in terms of overcoming the feelings of loss and mourning caused by the pandemic, the existentialist perspective supports acceptance and continuing life. Nicomedes et al. (2020) obtained similar results in their study in the Philippines. The people interviewed during the pandemic stated that the meaning of their lives had changed. Nicomedes et al. (2020) claimed that the participants took advantage of existential implications to cope with the difficulties faced during the pandemic.

Natural disasters, crises and pandemics are situations that affect people collectively and cause fear. Findings obtained from the study showed that the most intense emotions experienced were fear and anxiety. This feeling of fear and anxiety can be divided into: (1) fear of death, (2) fear of not getting better, and (3) fear of infecting other people. According to official figures, nearly 4 million people have died since the beginning of the pandemic all over the world (Worldometers, 2021). Watching the news, following the news on social media, and seeing the virus-related casualties caused fear of death in participants (Güngör et al., 2020). Patients in risk groups, especially the elderly, experienced this feeling more intensely. When we look at the literature, the subject that researchers mostly focused on during the pandemic was the fear and anxiety of death (Guner et al., 2021; Khademi et al., 2020; Menzies & Menzies, 2020; Özyürek & Atalay, 2020; Pradhan et al., 2020). Similar to the findings of the present study, Özyürek and Atalay (2020) found that COVID-19 negatively affects the well-being of individuals and increases death anxiety. In another study, Guner et al. (2021) examined death anxiety in the elderly during the COVID-19 pandemic and found that the level of anxiety was moderate. Single participants had higher levels of anxiety

than married ones. This showed that family support was a significant protective factor against death anxiety. In addition to fear and anxiety, the participants stated that they experienced sadness, confusion and helplessness. Particularly, there was a sense of helplessness in the participants, created by the lack of a clear cure for the disease. Participants lost relatives, were quarantined and could not go out. The participants' inability to fully experience the feeling of mourning, not being able to say goodbye and a feeling of helplessness caused deep sadness. While the participants experienced physical complaints from COVID-19, the psychological impact of the disease was profound. When the participants find that they have been infected, we see that the first feeling they experience is sadness. Chaudhury and Samudra (2020) also noted that the quarantine had psychological effects on people, especially confusion, anger, sadness and disbelief. The findings of a study in India were similar to the ones in Turkey. In another study conducted in the United States (Alfonsin-Vittoria, 2020), similar results were obtained and this situation was generally defined as emotional instability. In other words, the COVID-19 outbreak has deeply shaken people's lives. It is not only systems that change, but also emotions and psyches.

Limitations

Research is limited to the results achieved within the bounds of the data obtained in 2020, Turkey. The aim was to considered participants in four groups: (1) patients who were followed up at home, (2) patients who were treated at the hospital, (3) patients who were treated in the intensive care unit, and (4) patients who were treated in the support unit. However, since the majority of the patients in the fourth group lost their lives and the few people who could be reached did not agree to participate in the study, the targeted number of participants in this group could not be reached. This limited our study. Another point is the interview techniques used to obtain research data. The interviews were conducted face-to-face and over the phone. Many participants preferred to talk over the phone. This was another limitation of the study as it limited our analysis to purely verbal data.

Implications and recommendations

Mental health professionals who provide psychological support to COVID-19 patients should specifically consider resilience. In the process of case conceptualisation, they should take into account the internal and external protective factors of the patients in the face of this disease. In this study, individuals emphasised external protective factors related to their experiences of resilience but a limited expression of internal factors, perhaps due to the study being conducted using telephone interviews, making it difficult to express internal factors. Therefore, new research should focus on this issue. For this reason, research using different data collection methods can be conducted to obtain more information on the internal protective factors of individuals who test positive for COVID-19. It is recommended that studies be conducted to verify the concept of "social support" as the most important protective factor for individuals who are positive for COVID-19, to raise serious awareness of this issue in society, to increase the quality of relationships, albeit remotely, for family, friends and relatives.

The concepts of spirituality, hope and optimism, which are expressed among the internal protective factors, can support the individual in addition to any medical treatment. It is therefore essential for healthcare professionals to approach patients in a way that strengthens their spirituality, hope and optimism.

While the most expressed protective factor is social support, the risk factor is social exclusion. This situation shows that social relations are crucial in society, and people care about the attitudes of others. Information meetings and campaigns can be organised with public institutions, local administrations, media, NGOs etc. to lessen this issue.

Data availibility

Due to the nature of this research, participants of this study and university ethics board did not agree for the data to be shared publicly, so supporting data is not available.

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