4 The Experiences of Recovered COVID-19 Patients in Baqiyatallah Hospital: A Qualitative Study

Leila Karimi, Somayeh Makvandi, Farshid Rahimi-Bashar, Amir Vahedian-Azimi, and Amirhossein Sahebkar

Abstract

The emerging COVID-19 disease affects not only the physical health but also the emotional and psychological health of patients. This study aimed to explain the experiences of 22 recovered COVID-19 patients in Baqiyatallah hospital, Tehran, Iran. Data were collected through in-depth semi-structured interviews. All interviews were recorded and transcribed and then analyzed using the conventional content analysis method. This resulted in emergence of 3 themes "emotional-sensational paradox", "spiritual growth", and "experienced mental-psychological effects", with 11 main categories and 33 subcategories. The results of the study can be used to develop instructions and guidelines for the families of patients as well as healthcare teams to provide effective measures and interventions to minimize the suffering of patients and the damage to mental health.

Keywords

Experience · Patients · COVID-19 · Qualitative research

L. Karimi
Behavioral Sciences Research Center, Life style institute, Nursing Faculty, Baqiyatallah University of Medical Sciences, Tehran, Iran

S. Makvandi
Department of Midwifery, School of Nursing and Midwifery, Islamic Azad university Ahvaz branch, Ahvaz, Iran

F. Rahimi-Bashar
Anesthesia and Critical Care Department, Hamadan University of Medical Sciences, Hamadan, Iran

A. Vahedian-Azimi (✉)
Trauma Research Center, Nursing Faculty, Baqiyatallah University of Medical Sciences, Tehran, Iran

A. Sahebkar (✉)
Applied Biomedical Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

Biotechnology Research Center, Pharmaceutical Technology Institute, Mashhad University of Medical Sciences, Mashhad, Iran

School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran

Polish Mother's Memorial Hospital Research Institute (PMMHRI), Lodz, Poland
e-mail: sahebkara@mums.ac.ir

1 Introduction

In December 2019, reports emerged of an infectious disease caused by a novel coronavirus in Wuhan, China, a virus that the World Health Organization (WHO) officially named COVID-19. One of the characteristics of

P. C. Guest (ed.), *Identification of Biomarkers, New Treatments, and Vaccines for COVID-19*, Advances in Experimental Medicine and Biology 1327, https://doi.org/10.1007/978-3-030-71697-4_4

COVID-19 is its high rate of transmission, which has caused it to quickly become a global health crisis. Contracting a disease like COVID-19 can have major impacts on a person's life, not only because of physical problems, but also due to exposure to emotional and psychological issues such as anxiety, fear, depression, labeling, avoidance behaviors, irritability, sleep disorders, and post-traumatic stress disorder (PTSD) [1].

Patients can be affected by physical, psychological, and financial effects of the disease as well as treatment, which can lead to depression [2]. Slow recovery, costly and tedious medical procedures, and doubts and frustration with illness can affect a person's family and social life [3]. These challenges are even more severe in the case of COVID-19 because of its ambiguous nature. Many have described this viral disease as a crisis, a term that in Eastern literature and religious mysticism refers to the presence of not only a threat but also an opportunity. Experience has shown that in the case of many difficult diseases such as cancer, people see the crisis that they go through as an opportunity to change [4]. Therefore, understanding how people experience a disease and cope with it and their new conditions and the impacts on their psychological concerns and social activities can greatly contribute to the quality of health services, especially rehabilitation support and nursing care [5].

Because of the nature and scale of the COVID-19 pandemic, it has resulted in the admission of large numbers of patients to hospitals. Research has shown that the experience of contracting an infectious disease with the possibility of death or unfortunate outcomes will have a more or less lasting effect on patients that is unpleasant to remember even after many years [1]. Considering the novel and emerging nature of COVID-19, there is still little scientific evidence regarding the experiences of COVID-19 patients. Although several studies have investigated the various physical and mental impacts of the disease, there is still much to discover about the views of the patients. Also, a review of the literature shows that there has been no qualitative study on the experiences of COVID-19 patients in Iran, which means there is indeed a large gap in our knowledge of experiences and concerns of recovered and recovering patients.

Quantitative and questionnaire studies are not suited for documenting and studying individual concerns and experiences. Dealing with crises such as difficult diseases is a personal, multidimensional experience affected by many factors as well as social context. Therefore, research in this area should be done in the form of qualitative and in-depth analysis of the experiences of people who have faced or are facing the challenges of this disease. This study was designed as a qualitative research based on semi-structured interviews with open-ended questions with the goal of capturing the views and opinions of COVID-19 patients and understanding their thoughts, feelings, and emotions, so that the knowledge of their actual experiences can be used in the development of better solutions for people under similar conditions. Indeed, documentation of patients' experiences from their own point of view can give therapists and families a better understanding of strengths and shortcomings of treatment and care services. This qualitative study was focused on the experiences of COVID-19 patients in Baqiyatallah hospital, Iran.

2 Methods

The present study was a qualitative research using conventional content analysis approach. The study was conducted in April 2020 in the recovery unit of Baqiyatallah hospital. Qualitative content analysis is a research method commonly used to study people's experiences and understanding of phenomena through the interpretation of the content of subjective data [6]. This method involves extensive examination of the participants' descriptions of the subject of interest to identify explicit and implicit concepts and then coding, summarizing, and categorizing them into themes and subthemes [7].

In this method, codes are formed based on meaning units found in participants' comments and then classified based on their differences or similarities [8, 9]. Content analysis is a good way

to obtain valid and reliable results from textual data in order to create knowledge, reach new insights, present a set of facts, or provide practical guidance for action. In conventional content analysis, categories can be extracted directly from the text [9–11].

The research population of this study composed of COVID-19 recovered patients at Baqiyatallah hospital. All patients with COVID-19 enrolled in this study were diagnosed according to the World Health Organization interim guidance [12]. Upon admission, patients underwent chest computed tomographic (CT) scan plus swab test. Since the scan results were available in real time compared to the swab test, which takes at least 24 h, diagnosis was made based on the CT results. However, positive results on a reverse-transcriptase–polymerase-chain-reaction (RT-PCR) assay of the nasopharyngeal swab provided confirmation of COVID-19. Thus, all participants in the study were positive based on the two methods. The interested patients who were able to express their experiences were sampled for maximum variance sampling in terms of occupation, education, economic status, and social and cultural variables. It should be noted that these patients had overcome the disease and were placed in the recovery unit of the hospital for 2 weeks to prevent transmission to others. Data were collected using in-depth semi-structured face-to-face interviews.

2.1 Data Collection

The interviews were conducted at the recovery unit of the hospital. Before each interview, the researcher introduced themselves and attempted to establish a good relationship with the participant and gain their trust. The researcher then explained the objectives of the research, the reason for recording the interview, the voluntary nature of participation, and confidentiality of identity and information of the interviewees. Participants were then asked to provide verbal and written informed consent. The interview sessions included a centralized group interview with 10 people and one-to-one semi-structured interviews with 12 people. In the one-to-one interviews, eight people allowed the researcher to record the interview and the remaining four subjects underwent the interview without recording. The group session was not recorded due to the reservations of some participants. The length of interviews was determined based on the amount of information provided and the conditions of the participant, but typically ranged from 35 to 70 min.

All interviews were conducted by the lead researcher. The interview began with a general open-ended question, followed by more specific questions based on the results of present and past interviews and the main themes detected in comments in line with research objectives. The exploration of participants' views and experiences from the onset of the disease up to the present continued until the researcher concluded that the concepts were sufficiently captured. The main questions of the interview were followed by exploratory and follow-up questions such as "Can you explain more?" Or "What did you mean by that?" to clarify the concept and eliminate ambiguities.

During the interview, the researcher provided feedback when needed, gained the trust of the interviewee, avoided communicating personal opinions to the interviewee, and did not correct the interviewee's statements.

Some examples of the main questions used in the interviews are as follows:

What is your opinion about coronavirus?
What is your experience with this disease?
How did you find out about your disease?
How did you feel when you were diagnosed with the disease?
Explain your feelings at the time of illness and also your present feelings?

The interviews were recorded by a voice recorder. Sampling continued until data saturation. Complete data saturation was achieved after 22 interviews.

Data analysis was performed by an inductive approach for qualitative content determination. For this purpose, the records of the interviews were listened to several times and transcribed verbatim. The analysis units in this part of the study were sec-

tions of transcriptions that were related to the research question. After selecting the analysis units, they were reviewed repeatedly to achieve immersion and gain a general sense of data. The initial coding was then performed based on participants' own words and also what they suggested (researcher's perceptions of their comments). Then, more interviews were conducted to further explore the identified concepts. More meaning units were then extracted from the new analysis units. After removing the excess meaning units, the remaining units were compressed into codes and reviewed. This analysis was carried out continuously and simultaneously with the process of data collection. The codes derived from the initial codes were grouped based on their differences or similarities, labeled based on their contents, and then classified into subcategories. Finally, the resulting subcategories were merged into several main categories and the themes in collected data were identified accordingly.

The interviews and analyses were performed according to the instructions given by Speziale et al. to increase the credibility, dependability, transferability, and conformability of the study [13]. Conformability was ensured by conducting in-depth interviews, combining several data collection methods such as interviews and field notes, submitting the coding process for review by experts to ensure the consistency of categories with participants' statements, remaining constantly engaged with data, audit trail by independent researchers to determine whether they have a similar understanding of data and to find contradictions between the initial codes obtained from the interpretation of participants' experiences. To ensure transferability, sampling was performed using the purposive method with the goal of maximizing diversity in interviewees in terms of age, education, and economic and sociocultural status. Examples of direct statements were included attempts made to provide detailed accounts of the information to allow independent judgment about the transferability of findings. Also, the results were presented to a number of researchers who did not participate in this study for comparison with their own results and experiences. Further, the researcher's ideas and assumptions were outlined in advance to prevent them from affecting data analysis. To ensure rigor, colleagues with expertise in qualitative research were also asked to review the coding process.

2.2 Data Analysis

In qualitative research, data analysis is performed simultaneously with data collection, and therefore there is a mutual effect between data collection and analysis. In this study, the data were analyzed using the conventional content analysis. The researcher listened to the interviews repeatedly until gaining a general sense of the data, transcribed them verbatim, reviewed the transcripts to extract codes, placed the identified concepts and codes in groups and discussed them further with interviewees, continued this process until reaching a consensus on the categorizations, and finally categorized the extracted concepts into themes accordingly [14].

3 Results

In-depth interviews were conducted with a total of 22 COVID-19 patients. The patients had an age range of 19–87 years. In terms of education level, the patients ranged from illiterate to master's degree. Most of the patients were married and had 0–5 children. From the analysis of the interviews, the researchers extracted 3 main themes with 11 categories and 33 subcategories, which are described below (Table 4.1).

3.1 Theme I: Emotional-Sensational-Paradox

One of the main themes identified in the interviews was the paradox in patients' emotional-sensual experiences. The paradoxical experiences that many patients expressed in their statements included being satisfied and also dissatisfied, describing experiences as positive and also negative, being relaxed and also stressed, and feeling support but also rejection.

Table 4.1 Themes and subthemes experiences of recovered COVID-19 patients

Themes	Categories	Subcategories
Emotional-sensational-paradox	Satisfaction–dissatisfaction	Good performance of medical staff Appropriate equipment and facilities Lack of rapid diagnosis Lack of timely information Insufficient training
	Positive experiences–negative experiences	Acceptance of the disease Hope for the future Overcoming the disease Disappointment Wandering
	Relaxation–stress	Recovery statistics Empathy with the patient by relatives Talk to a doctor Infection statistics Death statistics Disease side effects
	Support–rejection	Sympathy Compassion Accompanying Social exclusion Getting away from others
Spiritual growth	Accepting and submitting to divine providence	Belief in divine destiny Belief in divine providence
	Rethinking material possessions	Understand the meaning of life No fear resulting from heartfelt faith
	Seeking stronger divine connection	Prayer Appeal Mention Patience Trust
	Tendency to spirituality	Religious beliefs Disease is from God Cure God willing Observance of health as observance of people's rights (Haqqonnas) Altruism Close to God
Experienced mental–psychological effects	Unpleasant thoughts	Death Despair Hopelessness
	Perceived mental stress	Fear Anxiety and stress Deprivation Obsession Hopelessness
	Positive thoughts	Feeling empowered Positive attitude toward the disease

Satisfaction–Dissatisfaction

In this regard, patients expressed satisfaction with the good performance of the medical personnel and the quality of hospital equipment and facilities, but complained about the media doing a poor job in informing people at the onset of the pandemic, insufficient public education, and the sluggishness of the diagnosis process. Some of the statements of the participants in this regard are provided below. Commenting on the satisfaction with the hospital staff and facilities, one participant said:

We were in a hospital that had good facilities and also good expert staff who were really committed and sincere in doing their job and were treating us good and helping us not worry (Participant No. 2).

Why they didn't say don't come out right from the start at the 30th? (referring to the onset of pandemic in Iran). Because of this, people were still going everywhere at that time. I can claim that it was poor and late announcements that caused me to become sick (Participant No. 4).

If they had announced it in early February, this wave of disease would not have occurred; if they were good in educating people, the disease would not have occurred ... (Participant No. 5).

It took a long time for them to diagnose my coronavirus. First they said it's common cold, then they made other diagnoses ... After changing a few hospitals and a few new doctors ..., they realized it's coronavirus (Participant No. 1).

Positive Experiences–Negative Experiences

While having negative experiences such as frustration and confusion, patients also expressed that the acceptance of the disease and overcoming it were positive experiences. Referring to this issue, one of the participants stated:

After realizing that I had coronavirus, I didn't know what to do. I had a feeling of helplessness because I thought I might not be treated, but then I submitted to God's will and accepted that this is my illness and that I must be treated. After starting the treatment and once I got better, I began feeling a sense of overcoming the disease and that whatever God wants will happen. I felt that God has given me the ability to overcome the disease ... (Participant No. 3).

Relaxation–Stress

Many patients had experienced anxiety and stress because of high rate of infection and relatively high mortality rates, and also complications of the disease. But at the same time, they were also heartened by the counseling of physicians, how people around them had understood their condition, and the recovery statistics. In this regard, one participant stated:

I was feeling anxious, but the doctor's words that I am ok were calming. Television reports giving the death statistics makes people stressful and anxious... People will be more relaxed if they show the recovered statistics, but reporting the death statistics increases the stress ... it was heartening enough for me to see my family understand my condition (Participant No. 9).

Support–Rejection

Patients had received support, sympathy, and compassion from their families, healthcare workers, and people around them, but they had contradictory feelings about how people had kept their distance from them to avoid contracting the disease. Examples of these contradictory feelings can be observed in the following statements:

A friend was telling me that I don't pray, but I told people to pray for you. Hospital personnel come ask how I'm doing. So there is some sympathy. At the same time, people are afraid to come close, even my family, despite their sympathy, they keep their distances. Well it's natural because the virus is infectious (Participant No. 6).

It feels bad that everyone is keeping their distancing from you. Since I knew how people would react, when I found out that my test was positive, my wife called my brother to give me a lift to the hospital. But he said call an ambulance. But we didn't do it, because if the neighbors had seen the ambulance and found out about me having coronavirus, they wouldn't let me back in our apartment. So we went with Snap (car rental service) and I didn't even tell the driver because I was afraid he would drop me off...

This reminds me of the judgment day, as everyone is running away from others (Participant No. 2).

3.2 Theme II: Spiritual Growth

While accepting the disease and its negative consequences as a fact, some patients stated that some things that they experienced during the disease led to their spiritual growth. These factors are listed below.

Accepting and Submitting to Divine Providence

Belief in religion and the consequent view toward the suffering and hardship due to a disease that

has no definitive treatment plays a significant role in people's tolerance of hardships and effects of the disease and can also affect recovery. In religious people, who believe in divine providence and mercy, the experience of the disease may lead to spiritual growth. In this regard, some of the participants shared their experiences as follows:

> *This reminds me of the judgment day, as everyone is running away from others, but in the end our destiny is in God's hand...* (Participant No. 2).

> *God has sent this disease to test humans and to tell them that the cure is in my hand. I believe that this is God's will. He has sent the disease to me and he also has sent the cure. If he didn't want to, it wouldn't happen. I submit to God's will. I am not afraid of the disease because I believe that life is in the hands of God and I believe in him ...* (Participant No. 1).

Rethinking Material Possessions

Another participant stated:

> *After contracting the disease, I just realized what life is, the life is not these material possessions and things, I realized that I'll be judged by my actions and nothing else ... money, wealth, cars, houses, they are nothing ...* (Participant No. 11).

Seeking Stronger Divine Connection

Many participants cited prayer for patience and trust in God as a way to relax. An example of such statements is given below:

> *Showing patience and perseverance, praying, and reading Quran have an impact and make people more peaceful; believers can keep their spirits up by praying and supplication*"

Tendency to Spirituality

The examples of tendency to spirituality include not only the religious belief that the disease is from God and the cure will also be at his will but also altruism. Interestingly, one of the participants likened hygienic measures to respect for Haqqonnas (Islamic public rights):

> *We are responsible for the lives of the people and we have a commitment, whether religious or cultural, to respect hygiene .... it is Haqqonnas.... the religion makes it my responsibility .... If someone gets the disease from me, I have done wrong to him, I am obligated to not transmit the disease, we just have to take care of each other* (Participant No. 10).

3.3 Theme III: Experienced Mental–Psychological Effects

The categories of this theme include unpleasant thoughts, perceived psychological stress, and positive thoughts. The participating patients made the statements below about this theme.

Unpleasant Thoughts

(a) Death – Uncertainty about the lethality of the disease had caused a sense and experience of fear in people. One participant stated:

> *The disease has no clear symptoms and no clear cure. They just say it's fatal, so you start feeling that you're dying...* (Participant No. 5).

(b) Despair – Many patients stated that at one point they had no hope of treatment and recovery:

> *Since there's no definitive cure, I had no hope in the outcome of the treatment and did not expect to recover ...* (Participant No. 3).

(c) Hopelessness – Many patients were feeling unable to deal with the illness. In this regard, one participant said:

> *I was very weary. I felt like I was fainting. I couldn't fight with the disease neither mentally nor physically....* (Participant No. 2).

Perceived Mental Stress

(a) Fear – Fear of death, fear of transmitting the disease to other people, especially family members, and fear of exacerbation of one's conditions were the factors observed in this subcategory. The remarks of one participant, which were also expressed in other ways by several other participants, were as follows:

> *My biggest concern was that my children not get infected. Also since the disease is new and has no clear cure, some were saying it kills instantly. Also,*

I was afraid that it would become a large outbreak... (Participant No. 2).

(b) Stress and anxiety – The anxiety due to the concern of getting others infected, the ambiguity in the nature of the disease, the uncertainty of treatment, and finally the concern of getting judged by others were the subcategories that constituted this category.

It's a new disease, it's not clear what it is, it doesn't have a definite treatment, and that if you get sick, people start looking at you differently and run away from you. This gives me stress ... (Participant No. 4).

(c) Deprivation – Quarantined patients have reduced social communication, are distanced from their family and community. These experiences were common among the statements.

I was thinking when can I start working again? When can I return with my family? When can I go out with my friends? Will I be able to go back to society? Won't people run away from me (Participant No. 7).

(d) Hopelessness – Hopelessness was the prevailing experience of people with the disease. This hopelessness was mostly about the effectiveness of treatments and recovery.

...honestly I didn't expect to be cured... I thought I was going to die ... (Participant No. 8).

(e) Obsession – This subcategory refers to the tendency of some patients to completely avoid social interactions and show obsession about health and hygiene issues. In this regard, one participant stated:

Since I was discharged from the ward, I've been doing a lot of things like washing my hands, putting on a mask, keeping distance from people ... so much so that I might wash my hands ten times in an hour....

Positive Thoughts

(a) Feeling empowered – Recovered patients described their ability to overcome the disease and regain their physical and mental strength as an empowering experience:

I feel good. I think, God willing, my body strong and spirit was so strong that I managed to defeat the disease, and that's very good for me ... (Participant No. 9).

(b) Positive attitude toward the disease – In addition to their negative experiences, some participants spoke about their positive views regarding the disease, and specifically hope for the future, seeing the disease as a divine test, and positive thinking:

After recovering and putting those difficult days behind, I started hoping for the future, and I think the disease was a divine test. The disease made me another person and I consider this to be the positive side of the disease... (Participant No. 8).

4 Discussion

This study aimed to examine the statements of patients recovered from COVID-19 in Baqiyatallah hospital in Tehran to determine how they expressed their experience of contracting this viral infection. Based on the findings, the experiences of these patients were classified into 3 themes with 11 main categories and 33 subcategories. The themes identified in this study were emotional–sensual paradox, spiritual growth, and experienced mental–psychological effects.

Examining the experience of the patients showed that they had conflicting feelings about their condition. For example, while they were satisfied with the services provided, they complained about some factors that led to them contracting the virus. Also, while they felt the support, compassion, and sympathy of family and community members, they also sensed that people distanced themselves from them. In this regard, the findings also showed the mutual presence of positive and negative thoughts in the patients and the feeling of relaxation as well as stress. These results are consistent with the findings of a study by Ashing-Giwa et al., which reported conflicting emotions in cancer patients and attributed these to their different reactions and behavioral responses to social conditions and personal mental conditions [15].

A study by Khansari et al. reported the common emergence of such feelings in patients who received bad news such as a diagnosis of cancer [16]. In the present study, one factor that may have helped the patients to accept their disease and cope with it was spiritual growth. Similarly, two other studies reported that many patients considered their illness to be the will of god and that they continued living by trusting in god. Thus, they viewed the disease as a reason to strengthen their spirituality and their connection to God, a phenomenon referred to as spiritual relief [17, 18].

Most of the participants in the present study believed that religious beliefs, seeking divine help, and trust in divine power were important factors in them overcoming the disease and regaining their health. Similar studies on other serious diseases in different cultures also confirmed the impact of religious factors [15, 19–22]. In these patients, appealing to spirituality and trust in God served as an important source of support and hope for overcoming the illness, similar to the findings of Ashing-Giwa et al. [15]. A study by Stanton also reported the impact of returning to religious beliefs for overcoming illness in women with breast cancer [23].

Trust in a divine power helps the patient to remain peaceful and reduces the fears of the disease. A similar conclusion was drawn in a study by Sajadian and Montazeri [22], with the difference that patients in that study were even more inclined to pray and seek divine connection. Similar to the study of Sajadian, our study found that receiving support, especially from the family, played an important role in the recovery and relaxation of patients.

An important source of anxiety for patients was their poor knowledge about the disease, which can be attributed to the absence of good education about the issue, as well as the novelty of such a crisis. Considering the statements made by some patients, it is necessary to create an education program for the patients being discharged as well. In this regard, a study by McPhail et al. reported that informing patients about follow-ups, necessary care in the post-treatment period, and recurrence reduced the anxiety of patients [24].

The psychological effects of the disease on the interviewed patients included the sense of anxiety, stress, fear, despair, and deprivation. In a study by Imanzadeh, it was stated that several factors can help reduce disease-induced anxiety and there are different ways for patients to control this anxiety themselves. Being hopeful, seeking meaning in life, quality of life, optimism, receiving support, access to facilities, counseling services, and happiness are some of these factors and strategies. The results of the present study about understanding the meaning of life and rethinking material possessions are also similar to the findings of the findings of another study of cancer patients, in which it was reported that religious people find life more meaningful and consequently have higher hopes for living and lower anxiety and fear of death [25].

Another source of anxiety for patients in the present study was the fear of being infected or infecting others, especially family members. Other unpleasant thoughts and feelings that the interviewed patients experienced included the sense of loneliness, deprivation, hopelessness, stigma, stress, anxiety, and fear. Consistent with these findings, other studies have reported that such unpleasant thoughts may reduce the patient's commitment to treatment and even make people think of avoiding quarantine [26, 27]. This may even cause the patients to lose the psychological support of their family and friends, which could exacerbate their stress and lead to even greater psychological damage.

The limitations of this study included gender bias (all subjects were male) and also non-generalizability, because of the place of study and the nature of qualitative research. In addition, the seriousness of the illnesses was not accounted for in the findings. This aspect could have been achieved through the use of biomarkers such as measurements of the levels of inflammatory serum proteins and imaging approaches included computed tomography chest scans [27]. The strengths of the study included the leading researcher conducting all interviews and also the short interval between the treatment and the interview (interviews were conducted within 2 weeks of discharge from wards), when participants could more likely to express their experiences more accurately.

5 Conclusions

The results of this study showed that conflicting emotions, spiritual growth, and experienced mental–psychological states were among the important factors that affected the mental health of COVID-19 patients. In addition, it had been explained to the patients about the results of their laboratory and clinical tests, such as CT scans and PCR results, and they were also kept informed about the course of the disease and treatment. This may have led to them experiencing a milder form of the disease, resulting in their having greater peace of mind and stronger hopes for the future, compared to individuals who experience more severe disease forms. Therefore, there should be a policy to educate COVID-19 patients upon admission in order to teach them how to overcome the problems that may emerge during their illness. This could help them to cope with the stressful situations and avoid negative experiences. Taking necessary measures to give patients or susceptible people access to free care, treatment, social and psychological counseling can be helpful in this regard. The results of this study can be used to develop instructions and guidelines for the families of patients as well as healthcare teams to help them understand the patients' typical condition and experiences and provide effective measures and interventions to minimize the suffering of patients and the damage to their mental health. The main goal is to restore balance and stability to the lives of individuals affected by this global pandemic.

Acknowledgments We are thankful for financial support, guidance, and advice from the Clinical Research Development Unit of Baqiyatallah Hospital.

References

1. Mohammadi MT (2020) Psychological impacts of Covid-19 outbreak on mental health status of society individuals: a narrative review. J Mil Med 22(2):184–192
2. Monga M, Alexandrescu B, Katz SE, Stein M, Ganiats T (2004) Impact of infertility on quality of life, marital adjustment, and sexual function. Urology 63(1):126–130
3. Bahrami N, Sattarzadeh N, Koochaksariie FR, Ghojazadeh M (2007) Comparing depression and sexual satisfaction in fertile and infertile couples. J Reprod Infert 8(1):52–59
4. Cooper M (2015) Existential psychotherapy and counselling: contributions to a pluralistic practice. Sage, Thousand Oaks. ISBN-10: 1446201317
5. Drageset S, Lindstrøm TC, Underlid K (2016) "I just have to move on": women's coping experiences and reflections following their first year after primary breast cancer surgery. Eur J Oncol Nurs 21:205–211
6. Boswell C, Cannon S (2018) Introduction to nursing research. Jones & Bartlett Learning, Burlington. ASIN: B00E6TM45A
7. Krippendorff K (2018) Content analysis: an introduction to its methodology. Sage, Thousand Oaks. ISBN-10: 0761915443.
8. Graneheim UH, Lundman B (2004) Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today 24(2):105–112
9. Elo S, Kyngäs H (2008) The qualitative content analysis process. J Adv Nurs 62(1):107–115
10. Hsieh H-F, Shannon SE (2005) Three approaches to qualitative content analysis. Qual Health Res 15(9):1277–1288
11. Zeighami R, Nesami MB, Oskouie F, Nikravesh MY (2008) Content analysis. Iran J Nursing 21(53):41–52
12. Speziale HS, Streubert HJ, Carpenter DR (2011) Qualitative research in nursing: advancing the humanistic imperative. Lippincott Williams & Wilkins, Philadelphia. ISBN-10: 0781796008
13. Holloway I, Galvin K (2016) Qualitative research in nursing and healthcare, 4th edn. Wiley-Blackwell, Hoboken. ISBN-10: 9781118874493
14. Ashing-Giwa KT, Padilla G, Tejero J, Kraemer J, Wright K, Coscarelli A et al (2004) Understanding the breast cancer experience of women: a qualitative study of African American, Asian American, Latina and Caucasian cancer survivors. Psychooncology 13(6):408–428
15. Khansari F, Saeedinejad Y, Raoofi A, Shamsi Gooshki E (2016) Psychological experiences of women with breast cancer after passing through the critical stage; a qualitative study. Iran Q J Breast Diseas 9(3):53–59
16. Jassim GA, Whitford DL (2014) Understanding the experiences and quality of life issues of Bahraini women with breast cancer. Soc Sci Med 107:189–195
17. Jalali M, Nasiri A, Abedi H (2015) Patients and family members' experiences regarding receiving bad news from health providers. Iran J Med Ethics Hist Med 7(5):83–93
18. Overcash JA (2004) Using narrative research to understand the quality of life of older women with breast cancer. Oncol Nurs Forum 31(6):1153–1159
19. Ben-Zur H, Gilbar O, Lev S (2001) Coping with breast cancer: Patient, spouse, and dyad models. Psychosom Med 63(1):32–39

20. Carlick A, Biley FC (2004) Thoughts on the therapeutic use of narrative in the promotion of coping in cancer care. Eur J Cancer Care (Engl) 13(4):308–317
21. Sajadian A, Montazeri A (2011) Exploring the experiences of Iranian women with breast cancer: a qualitative study. Iran J Epidemiol 7(2):8–16
22. Stanton AL, Danoff-burg S, Huggins ME (2002) The first year after breast cancer diagnosis: hope and coping strategies as predictors of adjustment. Psychooncology 11(2):93–102
23. McPhail G, Wilson S (2000) Women's experience of breast conserving treatment for breast cancer. Eur J Cancer Care (Engl) 9(3):144–150
24. Imanzadeh A (2019) Lived experiences of cancer patients from death anxiety based on jaspers borderline situations. Iran J Psychiat Nursing 6(6):35–47
25. Liu X, Kakade M, Fuller CJ, Fan B, Fang Y, Kong J et al (2012) Depression after exposure to stressful events: lessons learned from the severe acute respiratory syndrome epidemic. Compr Psychiatry 53(1):15–23
26. Wang Y, Xu B, Zhao G, Cao R, He X, Fu S (2011) Is quarantine related to immediate negative psychological consequences during the 2009 H1N1 epidemic? Gen Hosp Psychiatry 33(1):75–77
27. Tan C, Huang Y, Shi F, Tan K, Ma Q, Chen Y et al (2020) C-reactive protein correlates with computed tomographic findings and predicts severe COVID-19 early. J Med Virol 92(7):856–862