

Psychological Impact of the COVID-19 on Hospitalized Patients: A Qualitative Study

Abstract

Background: As the 2019 coronavirus spreads rapidly around the world, it has caused widespread fear and anxiety in various populations. This study aimed to explore the psychological effects of COVID-19 on patients with this disease. **Materials and Methods:** A qualitative study was conducted with a phenomenological approach. A purposive sample of 11 patients with COVID-19 was recruited. Data were collected from the beginning of March to the beginning of June 2020 using semi-structured interviews and they were analyzed according to Van Manen's method. Interviews were audiotaped, transcribed verbatim, and analyzed using thematic analysis. **Results:** Initially, 315 codes were extracted. During data analysis and comparisons, the codes were reduced to 108. Ultimately, 10 categories, 38 subcategories, and 3 themes emerged. The theme of "behavioral responses" including 5 categories (Remorse, Fear and despair, Death anxiety, Growth, Support), "disease-caused helplessness" including two categories (Failure, Denial), and "decline of social networks" including three categories (Rejection, Stigma, Feeling guilty). **Conclusions:** After understanding the findings of this research, nurses working in the wards of patients with COVID-19 can better consider the importance of assessing and analyzing the psychological challenges and experiences of these patients during the course of illness and quarantine. Findings also enhance the identification and organization of training needs during such a pandemic and the design of nursing programs to meet them.

Keywords: COVID-19, Pandemics, patients, Qualitative research, psychological experiences

Introduction

The 2019 coronavirus is spreading rapidly around the world.^[1] Nowadays, information is spreading more rapidly and extensively than it was in 2003 when Severe Acute Respiratory Syndrome (SARS) broke out, which might exacerbate public fear, panic, and distress.^[2]

Previous data on large-scale accidents, such as natural disasters, show that such accidents are strongly associated with the effects on mental health. Among these effects is post-traumatic stress disorder, which may be associated with depression, anxiety, and other behavioral and psychological disorders.^[3,4] Also, people who have experienced public health emergencies in the past still have varying degrees of stress disorders. Stress disorders persist even after treatment and discharge from the hospital, indicating that these individuals should not be ignored.^[5] However, the rapid escalation of COVID-19

pandemic has resulted in a World Health Organization (WHO)-declared public health emergency of international concern.^[2] On the other hand, the current pandemic is greatly associated with psychological complications and its unknown nature and the lack of a specific vaccine or medication for it are also rapidly increasing people's anxiety, fear, and distress in societies.^[6] Besides, public health measures such as being away from the community make people feel isolated and loneliness, which in turn can increase stress and anxiety. However, public health measures are necessary to reduce the prevalence of COVID-19 pandemic.^[7] Moreover, the experiences of the patients with an unknown disease have confirmed that keeping the disease secret and reducing social and physical contact with others often leads to feelings of boredom, frustration, and isolation, which can be distressing for patients.^[8]

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Preliminary data suggested that patients with COVID-19 might experience delirium, depression, anxiety, and insomnia.^[9] Furthermore, according to the available evidence patients after diagnosis of COVID-19 were more likely to have psychological concerns such as fear of progression of their illness, disability, or premature death.^[10] The results of a study in Iran also indicated that anxiety was higher among residents of provinces with a high prevalence of infection and also among people who had at least one family member, relative, or a friend with COVID-19.^[11] Given that the grim pandemic has caused increasing public panic and mental health stress, the mental health has become an issue that cannot be ignored.^[10] Therefore, not only for all patients with COVID-19 but also for patients with mental disorders caused by this disease, special psychiatric treatment measures and appropriate psychotherapy services should be provided.^[12] Qualitative research provides an opportunity for an in-depth study of mental experience with a stronger impact on the subject matter.^[13]

Considering the importance of the issue, since according to the researcher's research, no studies have been conducted on the psychological experiences of COVID-19 in Iran, and if the studies were conducted, it was by telephone conversation with patients with this disease. Therefore, it was decided to conduct a qualitative study with a phenomenological approach to provide a deeper understanding of the psychological responses of patients with COVID-19.

Materials and Methods

This phenomenological study was conducted to investigate the psychological responses of hospitalized patients with COVID-19. In this study, the phenomenon of patients' psychological responses to COVID-19 was examined through in-depth interviews. Participants were recruited among adults with COVID-19 at a hospital in Qazvin, Iran. That hospital was a specialized center for infectious diseases and served as a referral hospital for patients with this disease in northwestern Iran since the beginning of the outbreak of COVID-19. The researchers were nurses working in wards of patients with COVID-19. The purposive sampling method was used to recruit and interview 11 patients (six females and five males) with COVID-19.) Table 1 shows the demographic information of the participants. (The first author introduced himself and explained the goal of the research project to prospective participants before they were enrolled in the study. Sampling was done to achieve diversity of sample characteristics such as gender, religion, and age. Participants were enrolled in the study if they met the inclusion criteria including having COVID-19 and being mentally stable, assessed by the history given in the patient's hospital record and also asking questions of the patients; able to express their experiences of illness and quarantine; and willing to take part in the study.

Table 1: Demographic characteristics of participants

Demographic parameters		Numbers (%)
Gender	Female	6 (55)
	Male	5 (45)
Marital status	Single	1 (9)
	Married	10 (91)
Education status	Academic	2 (18)
	Diploma	2 (18)
	High school	1 (9)
	Elementary	4 (36)
	Illiterate	2 (18)
Job status	Housekeeper	6 (55)
	Employed	3 (27)
	Retired	2 (18)

The collection of data was conducted by the first author between March and June 2020 through semi-structured interviews until no more new description of the phenomenon was found. Individual, face-to-face interviews were conducted in Persian after having established rapport with respondents, in a doctor's office where participants felt safe and comfortable and privacy was assured. To reach a comprehensive understanding of the phenomenon, interviews began with a general question: "Please share your feelings with COVID-19". "How did you feel when you found out that you were unlucky with COVID-19?" to encourage participants to talk about their experience. This was supplemented with the question: "How do you feel about COVID-19?" and followed by probing questions, such as "Can you give an example?" and "Can you explain further?". Each interview was audio-recorded and the average duration of the interviews in one to two sessions was 40 minutes. Field notes were also used during the semi-structured interviews for recording the participants' behavior and establishing non-verbal communication, facial expression, and eye contact.

After each interview with patients, the findings were transcribed immediately and then checked several times verbatim to increase the accuracy and comprehension. From this point, the transcribed data were the primary source for describing the experiences of COVID-19 disease and quarantine in this study. The transcriptions were then translated into English by a bilingual person, with full observance of grammatical, writing, and literary tips. Finally, the transcripts were edited by two native translators. The data were then analyzed based on Van Manen's phenomenological method. Van Manen has introduced the following six activities as an operational approach for hermeneutic phenomenology^[14]:

- 1) Paying attention to the nature of the lived experience: The first stage in the study was to comprehend the nature of the lived experience.
- 2) Discovering a specific experience as lived: At this stage, the researcher studied an experience exactly as it was lived and not as it was conceptualized. In the current

study, the main data collection method was interviewing with open-ended questions. The interviews started with a simple question and continued with general questions, preferably focusing on targeted issues.

- 3) Contemplation on the essential themes that define the characteristics of the phenomenon: Three approaches were used for clarifying and uncovering the thematic aspects of the phenomenon: holistic, selective, and detailed or line by line. The detailed and selective approaches were used to separate the thematic sentences. Initially, each interview was read several times and researchers asked themselves “which statements were necessary for describing the phenomenon or experience?”. Then, the statements were identified and underlined and those similar to the patients’ words (descriptive) or their meanings and interpretations (interpretive) were written down. By merging and categorizing the thematic sentences, the major themes and minor categories were obtained.
- 4) Describing the phenomenon using the art of writing and rewriting. At this stage, the authors organized the written descriptions about the participants’ statements and presented objective examples of what they had said.
- 5) Establishing and maintaining a strong and conscious relationship with the phenomenon: the researchers tried to review the main research question constantly at all stages, including data analysis and theme extraction. At all stages of data analysis, the researchers initially reviewed the main research question and tried to extract the themes according to it.
- 6) Balancing the research context, considering the parts and the whole.

The accuracy of the qualitative findings was determined by assessing the criteria of credibility, dependability, confirmability, and transferability.^[15] To assess the credibility of the study, the findings were presented to the participants and they expressed their views on the coordination of the findings with their experiences to the researchers. Excerpts from the transcripts of the interviews were analyzed separately by them. In this study, an attempt has been made to help ensure the conformability of this research by preserving the documents related to the study. Dependability was assessed by participants and peer analysis. For transferability, the researcher tried to provide accurate and complete explanations of the research process and the samples had the maximum variety.

Ethical considerations

This study was approved by the research committee of Qazvin University of Medical Sciences after obtaining the approval of the Ethics Committee (ethics code: IR.QUMS. REC.1399.072). Before conducting the study, the researchers explained the study and its aims to the participants and a written informed consent was obtained from all the participants.

Results

The participants were 11 patients (6 women and 5 men) with COVID-19 admitted to Bu-Ali Sina Specialized Hospital for infectious diseases in Qazvin city, Iran. The mean age of the patients was 55.70 years [Table 1]. In continuous data analysis, 315 initial codes were extracted, which were reduced to 108 open code considering their overlaps after being merged. The analysis of the interviews, in response to the main research question, revealed 40 sub-categories, 10 categories, and 3 main themes. Themes were “behavioral responses”, “disease-caused helplessness”, and “decline of social networks”. In the following, the categories are described and explained. (Table 2 shows the themes and categories separately).

Behavioral responses

The first theme gained from qualitative data is patients’ responses to this horrific and traumatic experience, which included 5 categories and 19 sub-categories. Categories of this theme include “remorse”, “fear”, “death anxiety”, “growth”, and “support”.

Remorse

“Remorse” was one of the main categories of “behavioral responses” theme, which was divided into sub-categories of “advising others to boost their physical strength, sharing experiences, advising those around one to take the disease seriously”. Due to the difficulties that participants experienced during the exhausting period of the disease, they had recommendations for other patients who were at the beginning of the illness. So that they insisted so much on absolute rest, even going to the toilet (using diapers). They also advised non-sick people to strengthen the body with proper nutrition and exercise, not to leave the house, taking the disease seriously as soon as the symptoms be felt, and following it up early: “*The presence of underlying diseases was a very key factor in complicating their disease process, otherwise the coronavirus disease could not have defeated them in this way*” said one participant (Participant 5).

Fear and despair

This category includes 4 sub-categories: “fear of infection”, “disgust and hatred”, “economic insecurity”, and “fear of having an unknown disease”: “*I’m afraid that when I get home the disease will peak again and maybe this time it will be more severe than before. I do not know how it will be because the disease is still unknown.*” said a participant (Participant 10).

Death anxiety

“Painful death anxiety” and “fear of being killed by the medical staff” were two sub-categories of “death anxiety”. “*I was afraid that I might be killed by the medical staff when I was hospitalized, and I thought that the reason was that the disease was contagious and that there was a*

Table 2: Themes and categories of Psychological Impact of the COVID-19

Themes	Categories	Sub-categories
1. Behavioral responses	1. Remorse	Advising others to boost their physical strength Sharing experiences Advising those around one to take the disease seriously
	2. Fear and despair	Fear of a painful death Fear of infection Disgust and hatred Economic insecurity Fear of having an unknown disease
	3. Death anxiety	Painful death anxiety Anxiety of being killed by the medical staff
	4. Growth	Feeling of being reborn Survival as a gift from God Starting a new life Finding oneself Being satisfied with destiny Strengthened faith Success in a divine experiment Gratitude
	5. Support	The sympathy of friends The relatives' offerings for the recovery of the patient
2. Disease-caused helplessness	1. Failure	Failure to have a good end Not fulfilling one's dreams Waiting for death Suicidal ideas
	2. Denial	Denial of diagnosis Denial of quarantine Fight against emotional turmoil Insistence on doing one's previous activities
3. Decline of social networks	1. Rejection	Being ignored Lack of face-to-face support from the family and colleagues Lack of support from the doctors and nurses Lack of community support
	2. Stigma	Feeling shame Social isolation Hiding the disease from the family and society Dissatisfaction with pity
	3. Feeling guilty	Blaming oneself Blaming those around oneself Blaming the social media Blaming the authorities Blaming the strangers

possibility of it spreading to the healthcare staff." said one participant (Participant 3).

Growth

The sub-categories of "rebirth", "survival as a gift from God", "starting a new life", "discovering oneself", "being satisfied with destiny", "strengthened faith", "success in a divine experiment", and "gratitude" were placed under this category. In this regard, a participant admitted: "*I was struggling with death. I saw death with my own eyes. My dreams died. So far, I had not thought that I would be so sick. However, I say now that health is the greatest*

blessing. This disease was a warning for me to appreciate my health. I have just found myself and a new world has begun for me" (Participant 9).

Support

Support included two sub-categories, "the sympathy of friends" and "the relatives' offerings for the recovery of the patient". Positive and hopeful support from family and repeated calls and follow-ups were pleasant for the participants and comfort from friends and relatives had a great effect on their morale. Said one participant: "*My students have vowed for my health and have recited the*

Qur'an, they are constantly praying for me to get well soon" (Participant 4).

Disease-caused helplessness

The second main theme extracted from qualitative data was "disease-caused helplessness" which was classified into the subcategories of "failure" and "denial".

Failure

Failure was divided into the sub-categories of "failure to have a good end", "not fulfilling one's dreams", "waiting for death", and "suicide ideas". Participants commented on their frustration and failure to achieve their wishes, wishing they could return home and to their family, and that discharge was a distant and unattainable dream for them. One participant said: *"I wish to die in the way of worshipping God and the Ahl al-Bayt, not to die with coronavirus disease"* (Participant 4).

Another participant said: *"At the height of my illness, I wanted to find a way to kill myself. I could no longer bear the growing suffering"* (Participant 1).

Denial

"Denial" was divided into sub-categories of "denial of diagnosis", "denial of quarantine", "fight against emotional turmoil", and "insistence on doing previous activities". Reflecting on the statements of the interviewees indicated that they tried to hide the disease from those around. One participant said: *"I did not believe in coronavirus disease, even after the doctor's diagnosis because I followed the principles of hygiene, so how can I have coronavirus disease?"* (Participant 3).

Decline of social networks

Another major theme was the "decline of social networks", which included the subcategories of "rejection", "illness-related stigma", and "feeling guilty".

Rejection

The "rejection" category was divided into the sub-categories of "being ignored", "lack of face-to-face support from family and colleagues", "lack of support from doctors and nurses", and "lack of community support". *"My family does not come to visit me and do not take me home. I will not talk to them either; my daughters and sons have left me"* said a participant (Participant 6).

Being ignored

"Being ignored" was one of the sub-categories of "rejection", which was one of the unfortunate concepts of the present research results. The analysis of the interviews showed that this concept was instilled much more by the medical staff than the rest of the community; but unfortunately, such behaviors have been seen many times in all medical groups. One participant stated: *"Why my doctor does not talk to me and does not take the time to examine*

me. I want to tell him my symptoms, but he does not stay on my bed for a few seconds. This is my right. What disease do I have that no one comes to me?" (Participant 11).

Stigma

The sub-categories of "shame", "social isolation", "hiding the disease from the family and society", and "dissatisfaction with pity" were extracted from the "stigma" category. One participant stated: *"I did not want to tell anyone that I was infected with coronavirus even to my children. If the neighbors found out that someone had contracted the coronavirus, that would be a scandal and no one would talk to him/her anymore. I would tell them that I had a lung infection"* (Participant 7).

Dissatisfaction with pity

One of the sub-categories of "stigma" was dissatisfaction with pity. The feeling of pity for those around them and the expectation of death from the COVID-19 patient had imposed a great psychological burden on the participants and reinforced a sense of helplessness. Said a participant: *"My relatives call me several times a day to ask how I am while I am not in such a bad mood. They put stress on me and say: Wow. Did you get the coronavirus disease? Do not be upset, you will be fine. Their words upset my heart"* (Participant 10).

Feeling guilty

The main sub-categories were "blaming oneself", "blaming those around", "blaming social media", "blaming the authorities", and "blaming strangers". Participants in this study had different reactions to the probable cause of the illness. Some blamed themselves for going to crowded places like the marketplace and funeral. Some others blamed those around them who were sick or virus-carrying, coming to their house for Eid Nowruz visiting, and sometimes felt anger and hatred toward them: *"Television and cyberspace fell short to say from the beginning that the corona had started or how dangerous and contagious it could be."* stated one participant (Participant 1).

Discussion

Coronavirus disease has affected not only the physical health of the Iranian people but also their mental health. In the present study, it was found that following COVID-19, behavioral responses such as remorse, fear, death anxiety, and ultimately growth which led to a fresh start in participants, were obtained. They also experienced helplessness caused by disease, which even gave them thoughts of suicide, because of feelings of frustration resulting from not ending well, waiting for death, and denying diagnosis and quarantine. Likewise, the feelings of stigma, shame, and social isolation caused by the disease, as well as blaming oneself, others, authorities, and social media, had a significant impact on the psychological responses of the participants.

One of the significant findings of the present study was patients' dissatisfaction with the lack of support from social networks and families. This result was consistent with other results in this field. So that during the COVID-19 pandemic, many patients often feel helpless and alone due to lack presence of family or friends.^[10] While there was consistent evidence linking social isolation and loneliness to worse mental health outcomes.^[16] In a study by Kong *et al.*,^[10] those with less social support had higher anxiety and depression scores.

Other main results of the present study were fear, guilt, and helplessness, which was consistent with the study of Goa and colleagues. In their study, they described these cases as symptoms of post-traumatic stress in patients, which in turn leads to a variety of avoidant behaviors and negative emotions in patients.^[17] In this study also, the feeling of fear of infection and unknown nature of the disease was obtained.

One of the main sub-categories of the "behavioral responses" theme was "the fear of economic insecurity". Batty *et al.*^[18] found that participants with academic, economic, and geographic problems were twofold as likely to be infected.

Other results of the present study were the feeling of rejection and stigma, which were consistent with the results of the study by Matua *et al.*^[19] Guo *et al.*^[17] also found in their study that stigma and uncertainty about disease progression were the two main concerns expressed by COVID-19 patients. Feelings of stigma have a significant effect on mental health and by discouraging patients from their health, led them to refuse to seek medical services. This issue in itself could hinder a threat to their health and make it difficult to treat the disease.^[20]

Another result of the present study was death anxiety, which was caused followed by an exacerbation of symptoms. According to Menzies RE *et al.*,^[21] in addition to predicting anxiety related to COVID-19, fear of death in many cases had a serious impact on mental health status. Social isolation and hiding from society was another result of the current study, which was consistent with the study of Desclaux and colleagues. They found that after the quarantine course, individuals reported that others treated them differently, including avoiding them, avoiding inviting them to meetings, being afraid to deal with them, suspicious, and making critical comments about them.^[8]

In the present study, the patients' unfavorable physical condition and shortness of breath prevented them from conducting lengthy interviews. This limitation of the present study was controlled by dividing the interview into several short interviews.

Conclusion

The results of the present study indicated that after the incidence of the COVID-19, the mental health impacts of

COVID-19 affect physical health. Therefore, understanding and researching the psychological impact of the pandemic disease is crucial to better prepare physicians, regardless of their field of expertise, to actively seek out such symptoms in the patients. Furthermore, it can help to early identify and manage patients with behavioral and psychological problems in large-scale pandemics. The results of this study also, have emphasized the importance of training the healthcare team to determine the impact of physical, psychological, and socio-economic problems in patients with COVID-19 and the need to investigate and discover the requirements for healthcare quality for them. Moreover, the results have stated the critical need for patients to have psychological support and counseling with psychologists.

The results of the present study have emphasized the need for psychological intervention for patients with COVID-19. According to these results the researchers suggest that in future research, after providing the necessary measures by the psychological team for these patients, their results be compared with the present study, where psychological interventions have not been performed for patients. Because in this way the importance of the issue becomes clearer.

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Conflicts of interest

Nothing to declare.

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