

Iranian People's Experiences of Psychological Challenges of Home Quarantine During the COVID-19 Pandemic: A Qualitative Study

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Abstract

Background: People experience a lot of challenges during COVID-19 pandemic, and studies that have examined the effects of quarantining people exposed to COVID-19 in Iran are limited.

Objectives: This study aimed to explore the people's experiences of psychological challenges of home-quarantine during the COVID-19 pandemic in southern in Iran.

Methods: In this descriptive qualitative study, 44 individuals who were voluntarily quarantined at home for at least two weeks due to the COVID-19 pandemic were interviewed in depth from the beginning of January to March 2021. Purposive sampling method was used to select the participants, and the conventional content analysis approach was used to analyze the data. Qualitative data management was performed using MAXQDA 10 software.

Results: Most participants were 31- 40 years old (29.5%), had diploma (38.6%), were married (75%), and were female (56.8%). The extracted data were classified into 3 main categories (Individual psychological issues, social psychological issues, and family psychological issues) and 15 subcategories.

Conclusion: Due to the prevalence of COVID-19, measures such as home quarantine should be taken to control the infection, but it might have adverse psychological impacts on some people, as confirmed by the results of this study. Therefore, it is necessary to pay attention to the mental health of people during home quarantine, so that this method is more welcomed and successful.

Keywords: COVID-19, quarantine, qualitative research, pandemic, Iran

Introduction

On January 30, 2020, the pandemic of COVID-19 was declared a public health emergency and international concern [1]. The contagiousness and high rate of transmission of COVID-19 forced every country to take appropriate measures to control this disease [2].

In Iran, the pandemic of COVID-19 started on February 19, 2020 in the city of Qom and then spread to all the cities of Iran [3]. At the time of conducting this study until March 2021 in Iran, the official total number of infected people reached 1 million 793 thousand 805 people and the number of victims reached 61 thousand 724 people [4]. In Iran, in order to prevent this

disease, measures such as social distancing, quarantine, compliance with health protocols, strict restrictions on inner and outer city travel, and restrictions on the activities of non-essential trades and jobs were implemented by the government [5-7].

Quarantine is one of the most effective strategies that humans have used for hundreds of years to fight the epidemic of infectious diseases [8]. Home quarantine means people should stay home, separate themselves from others, monitor their health, and follow directions from their state or local health department [9]. COVID-19 and home quarantine led to huge changes in people's daily lives, for example working from home, temporary unemployment, home-schooling of children, and lack of physical contact with other family members, friends and colleagues [10].

Recent studies have shown that quarantine has been associated with negative psychological effects. Brooks et al. reviewed 24 studies and reported negative psychological impacts of quarantine including post-traumatic stress symptoms (PTSD), confusion, and anger [11]. Therefore, COVID-19 pandemic has had not only the risk of death from viral infections, but also unbearable stress for people all over the world [12].

Also, a study conducted in Bangladesh assessed the depression and PTSD in quarantined people; 81.8% of the respondents had PTSD and 85.9% had depression [13]. The results of a study carried out by Best et al. suggest that even short-term social distancing practices are associated with increased psychological distress, including elevated levels of overall distress, such as emotional disturbance, panic, and depression [14]. Since people experience a lot of challenges during COVID-19 pandemic and studies that have examined the effects of quarantine of people exposed to COVID-19 in Iran are limited. Most of the studies conducted in this field have examined the epidemiology, outcomes, quality of life and survival rate, mortality and recovery of patients after contracting COVID-19. Considering that the purpose of qualitative studies is in-depth investigation, therefore, the present study aims to explore people's experiences of psychological challenges of home quarantine during the covid-19 pandemic.

Methods

In this qualitative descriptive study, the conventional content analysis approach was used to analyze the qualitative data. Accordingly, the categories were extracted directly from raw data without any theoretical assumption [15]. The participants in this study were the individuals who had voluntarily stayed at home quarantine for at least 2 weeks due to the prevalence of COVID-19 in order to protect themselves from the disease. Interviews with the participants were conducted up to 30 days after the end of the quarantine period. The purposive method was used to select the participants. The study participants were selected from health centers.

Participants were willing to participate in the study voluntarily, not had COVID-19 at the time of study, they were at least 18 years old, the residents were in the cities of Evaz, Lar and Gerash, they were familiar with the Persian language e, and they were ability to talk about their experiences during the COVID-19 home quarantine and Interested in talking about their experience. In order to increase the consistency and accuracy of the data, we tried to do sampling with maximum variation. Therefore, it was tried to include participants with different genders, different cultures and different socio-economic classes.

In this study, the data collection method was semi-structured interviews; the participants were interviewed from the beginning of January to March 2021. In this study, the interview began with intimate communication and explanation of the purpose of the research to the participants, continued with the general and open-ended question " Explain about your experiences during the COVID-19 home quarantine period", and gradually focused on specific issues.

Participants' words were recorded with their permission. Researchers asked further questions such as "Can you explain more?". At the end of each interview, the interviewer asked the participants to talk about other important issues that were not mentioned during the interview. Time and place of the interview was determined after completing the consent form by participants. On average, the interview in this study lasted 20 minutes. The interviews were continued until the data saturation level was reached and the obtained categories did not change. The interviews were

conducted in accordance with the health protocols. In order to maintain the health of the participants, the parties of the interview (the interviewee and the interviewer), masks and disinfectants were used. Physical distance between people was also respected.

To analyze the data, typed interviews word by word in Microsoft word, and then entered them into the MAXQDA 10 software. Then, each interview was read word by word and each text was broken down into meaning units. The meaning units that had similar meanings were placed in the same category. Finally, based on the content and similarities, the main categories were formed using subcategories.

In this study, Lincoln and Guba (2007) criteria were used to measure the rigor of the findings [16]. Writing reminders, checking the accuracy of data analysis by researchers familiar with the qualitative research method, and checking the initial codes by some participants and prolonged engagement of researchers with the process of data collection and analysis can increase the credibility of the data. To increase the dependability, the researchers tried to provide a

rich description of the study methods and the data collection process. To increase the confirm ability of the data, the researchers tried to provide sampling with the maximum difference. Also, to increase data transferability, the researchers attempted to use purposive sampling technique, data saturation technique and adequate descriptions of the data for critical study by other researchers.

The present study is the result of a research project with No.1399-67. Also Ethics Committee of Larestan University of Medical Sciences approved the current research with the code of IR.LARUMS.REC.1399.012.

Results

A total of 44 people with a mean age of 40.11 ± 14.36 participated in this study. Most of the participants were married (33 people), female (25 people) and had a diploma level of education (17 people). The demographic characteristics of the participants are summarized in Table 1. In total, 3 main categories and 15 subcategories were extracted in the study.

Table 2 summarizes these categories.

Table 1: Demographic Characteristics of the Participants

Variable	Number	Percentage
Age	20>	3
	20-30	8
	31-40	13
	41-50	10
	51-60	5
	61-70	3
	70<	2
Level of Education	Elementary school	8
	High school	10
	Diploma	17
	Academic	9
Marital status	Single	9
	Married	33
	widow	2
Gender	Male	19
	Female	25

Table 2: Categories and sub-categories extracted from the data

Categories	Sub-categories
Individual psychological Issues	Depression signs and symptoms, Feeling frustrated and incompetent, Anxiety, Posttraumatic stress disorder, Fear of being sick and getting sick, Exacerbation of obsession, Fear of unawareness and insufficient information, Confusion about the time, Embarrassment
Social psychological Issues	Stigmatization, Fear of getting someone else sick
Family psychological Issues	Conflict between spouses, Concerns about financial difficulties, Arguing with parents, Child nagging and stubbornness, Dependence on gaming in children

Category 1: Individual psychological Issues

Individual psychological issues were one of the most important challenges of the study participants during home quarantine due to COVID-19. In this category, 9 subcategories were extracted, which are described below.

Subcategory 1.1. Depression signs and symptoms

"I could not believe that coronavirus and quarantine could cause depression in me. I thought I might die, but alone and without anyone" (A 61-year-old female).

"During the quarantine period, I tended to sleep so much that I did not want to leave bed" (A 19-year-old female).

"At the beginning of the quarantine period, I was happy to be able to sleep and get up whenever I wanted and do my favorite things, especially playing games. But little by little, these things became repetitive and without pleasure. Nothing really interested me. I got bored and the passing of time was exhausting". (A 31-year-old male).

"I have challenges that have made me nervous. Long-term quarantine has made my condition worse. I have had suicidal thoughts several times" (A 33- year-old female).

Subcategory 1.2. Feeling frustrated and incompetent

"I was useless, frustrated, and pointless because I could not do anything during the home quarantine period" (A 25-year-old male).

Subcategory 1.3. Anxiety

"I was more worried and anxious than before and was constantly watchful for the bad news. I was irritable" (A 27-year-old female).

Subcategory 1.4. Posttraumatic stress disorder

"I had COVID-19 and was hospitalized. After recovery, I was quarantined at home for weeks. The days of quarantine were difficult for me

because in sleep and wakefulness I was experiencing the frightful moments of hospitalization. I was afraid of getting it again during the quarantine days" (A 49-year-old male).

Subcategory 1.5. Fear of being sick and getting sick

"When I was in quarantine, I was still afraid that I was at risk for coronavirus" (A 41-year-old female).

"When I was in quarantine, I kept thinking I got the virus. I got more scared with a sneeze or cough" (A 26-year-old female).

Subcategory 1.6. Exacerbation of obsession

"I am obsessed with washing, but—during the quarantine, my obsession got worse. I washed everything over and over" (A 43-year-old female)

Subcategory 1.7. Fear of unawareness and insufficient information

"Is home quarantine the only solution to fight the virus? How long should it continue? If the coronavirus is transmitted through food, clothing, and wind, is quarantine useful? "... I have fear of these ignorance" (A 42-year-old female).

Subcategory 1.8. Confusion about the time

"Several days after quarantine, I was mixed up for days. Sometimes, I even did not differentiate the sunset and sunrise" (A 78-year-old male).

Subcategory 1.9. Embarrassment

"When I was in quarantine, some friends called me and with a mocking tone said, "Did you go inside the house and not come out?" Honestly, I was embarrassed that I had captured myself because of a virus" (A 44-year-old male).

Category 2: Social psychological Issues

Another major challenge faced by quarantined participants was social issues. In this category, 2 subcategories were extracted, which are described below.

Subcategory 2.1. Stigmatization

"One of our neighbors called me and said, do you have a person with the coronavirus in your home?" I said no. He said, then, why no one leaves your home? They said that this family was sick and should not be approached. I ask myself if the quarantine was illegal or a sin?" (A 39-year-old female).

Subcategory 2.2. Fear of getting someone else sick

"I'm not afraid of getting COVID-19. I'm afraid that my family members, especially my elderly mother who has heart disease will get the disease from me" (A 57-year-old male).

Category 3: Family psychological Issues

Being quarantined at home also caused family challenges. In this category, 4 subcategories were extracted, which are described below.

Subcategory 3.1. Conflict between spouses

"My husband's work was shut down due to the spread of the coronavirus. The first few days of quarantine were not a challenge between us, but I do not know why the argument started between us" (A 52-year-old female).

"I had some challenges with my wife, but I was trying to end our quarrel by leaving home. However, in the days of quarantine, the quarrel between us got to the point where I had to beat my wife" (A 44-year-old male).

Subcategory 3.2. Concerns about financial difficulties

"If the quarantine is to be extended, how can I support myself and my family financially?" (A 37-year-old male).

Subcategory 3.3. Arguing with parents

"Due to the pandemic of COVID-19, the universities were closed, and I had to stay home. During the quarantine period, I argued with my mom for everything and had no escape" (A 21-year-old male).

Subcategory 3.4. Child nagging and stubbornness

"I have three children; they nagged from morning till night and asked "When can we get out and play? When will the quarantine end?" (A 36-year-old female).

Subcategory 3.5. Dependence on gaming in children

"Before the pandemic of coronavirus, my son used to play video games for an hour after doing school homework. But with the closure of schools

and during the quarantine period, he played games for several hours" (A 35-year-old female).

Discussion

In the present study, the participant's experiences caused by home quarantine during the COVID-19 outbreak were classified into three categories. Three main categories included "Individual psychological Issues", "Social psychological Issues" and "Family psychological Issues". In terms of the number of subcategories, the individual psychological Issues category had the most subcategories. In this category, one of the effects of quarantine at home was the occurrence or increase of depression and anxiety, which was also shown in this study. Findings of a study in Iran on patients with COVID-19 showed that depression and anxiety were one of the most important psychological challenges during COVID-19 pandemic [17]. The results of a study in China on the experiences of medical staff during the COVID-19 pandemic showed that depression was one of the most important psychological challenges reported by individuals [18]. In a study conducted in China on the psychological effects of COVID-19 on college students, the findings showed that one of the most important psychological challenges of students during this period was severe anxiety [19]. Also, in another study that examined the rate of depression and suicidal ideation in the two quarantined and non-quarantined groups, the results showed that there were significant differences between these two groups [20], which can be due to isolation from society and travel restrictions. So that in a study, the relationship between social isolation and the level of depression was investigated, and the results showed that during the COVID-19 pandemic, older adults were more prone to depression. Also, in this study, a decrease in physical activity was also mentioned as one of the causes of depression, and quarantine also had an effect on the level of depression. Physical activity also has an effect [21]. One of the subjects in the present study reported post-traumatic stress disorder (PTSD) during forced home quarantine. This finding is consistent with a study conducted in Syria. This study also stated that PTSD was more common among family members and people who had a positive COVID-19 test, as well as PTSD in

people who strictly followed the quarantine instructions more than those who ignored the quarantine when they were shopping [22]. that this could be the result of the increase in the prevalence of public panic during this pandemic, which has been proven in another study [23]. In the present study, one of the participants stated that the desire to sleep a lot was another complication of home quarantine, which was also found in other studies; in a study conducted in Italy, it was shown that quarantine caused sleep disorders [24]. In this study, the participants also mentioned COVID-19-related fears of getting sick. This finding has been confirmed in Fernandez's study that showed that women and young people who had experienced mental illness and trauma before the COVID-19 outbreak at the time of quarantine had experienced more fear associated with the COVID-19 [25], and that fear of coronavirus and fear of being infected with COVID-19 could lead to suicidal ideation in people [26]. Likewise, in the present study, suicidal ideation was reported during home quarantine.

In the present study, an increase in obsession was also reported, which has been mentioned in other studies [25]. A study also found that mothers were more obsessed with washing their children's hands during home quarantine [27]. It seems that this obsession is caused by the implementation of health and care recommendations.

Lack of pleasure, feeling bored and exhausting were among the signs and symptoms that the samples of this study referred to. These findings, which are in accordance with the Orgils study, show that quarantine causes exhaustion and boredom [28].

In this study, some of the participants stated feelings of frustration and incompetency due to quarantine. This finding was also observed among students, especially female students, who were quarantined due to the outbreak of COVID-19 [29]. This finding has also been found in a review study [11].

In the present study, the participants stated that home quarantine makes them lose track of time. In other words, they were confused about the time that this finding was one of the psychological effects of home quarantine. This finding has also been found in other pandemics, such as the influenza pandemic in 2009 [30].

Another category extracted in this study was in the field of social challenges caused by quarantine. One of the subsets of this category was that quarantine can cause stigma in people. Similarly, a study indicated that stigma of the disease caused violence in people, and those with the disease were less likely to seek medical care [31]. Although stigma is not just for ordinary people, a study conducted in Vietnam also found that medical personnel infected with COVID-19 and living in quarantine were also afraid of stigma [32]. As to COVID-19 disease, people are afraid to be known as faulty for the spread of infection among high-risk people [33]. Other findings of this study in social category revealed an increase in the duration of computer games done by children and the use of smartphones in adults. This finding has been clearly proven in other studies; for example, the duration of Mobile use by Spanish adults and young people during quarantine was significantly different from that before quarantine [34]. This finding can be due to more free time of people at home.

A study conducted in Thailand also found that the duration of mobile phone use has increased, but more use of communication and online technologies can have a positive effect on accepting quarantine and passing this time [35]. According to other studies that show that online and virtual communication methods have increased during the Covid-19 pandemic, this finding is quite logical that people use this method of communication more during quarantine.

Another category of this study was family challenges. One of the complications expressed in this area was the increase of verbal and physical conflict among family members during the quarantine. Other studies confirm this finding, stating that during the outbreak of coronavirus and quarantine, due to changes in the relationships, increasing tension and stress can increase conflict and domestic violence [36]. This finding seems to be a result of the psychological pressure of quarantine, which is acting out, one of the subsets of self-defeating behaviors.

Other quarantine issues in the present study include financial challenges and life issues, as found in Saurabh's study of the coronavirus outbreak [37]. Furthermore, in the present study, it was found that during the home quarantine, children were more prone to nagging and

irritability, which is in line with other studies [38]; This result is due to children being limited in the home environment and deprived of social environments and public spaces.

The qualitative nature of the current research and the cultural diversity in different societies limit the possibility of generalizing the results of this study.

Conclusion

The findings of this study showed that home quarantine during the COVID-19 outbreak caused negative experiences and destructive psychological effects on people, which can be prevented by identifying these complications and also the findings of this study can be used for future pandemics. So that by planning and finding a special solution, these side effects can be reduced. Because if these side effects are not controlled, it can cause failure to reach the goal of home quarantine, on the other hand, the side effects caused by home quarantine can be more than the spread of a pandemic. Also, the occurrence of these complications can reduce the acceptability of home quarantine

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Conflict of interest

There are no conflicts of interest in financial issues with any individual or third party.

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Authors' contributions

Mohammad-Rafi Bazrafshan and Amir Mansouri conceptualized and designed the study. Mohammad-Rafi Bazrafshan and Hamed Delam designed the study method. Mohammad-Rafi Bazrafshan, Amir Mansouri, Behnam Masmouei, and Maasumeh Elahi participated in data collection and analysis. Mohammad-Rafi Bazrafshan, Amir Mansouri, Hamed Delam and Omid Soufi drafted the paper. The project was managed by Mohammad-Rafi Bazrafshan. All

authors contributed to revise and complete the article. All authors gave final approval for the version to be published.

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