

# Experiences of Health Providers and patients in COVID-19: A SWOT analysis

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## Research Article

**Keywords:** COVID-19, Experiences, Health providers, patients, qualitative

**Posted Date:** September 21st, 2021

**DOI:** <https://doi.org/10.21203/rs.3.rs-850666/v1>

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# Abstract

**Background:** Health providers and patients face many problems in preventing and controlling COVID-19 in the family and the health system.

**Aim:** The aim of the present study was to explore experiences of health providers and patients in COVID-19.

**Methods:** directional qualitative content analysis was applied and 15 participants, including 10 patients with COVID-19 and 5 health providers. Data were collected using semi-structured interviews and analyzed by Lundman and Graneheim qualitative content analysis methods. The MAXQDA10 software was used to manage qualitative data analysis.

**Results:** During the data analysis, "strengths", "weaknesses", "opportunities", and "threats" were defined in terms of categories. The " Benefits and Barriers " was determined as the main theme.

**Conclusion:** Community members and policymakers should support and reinforce the positive experiences of patients and health providers and the health system and families need to be more prepared for the crisis.

## Background

Corona Virus Disease 2019 (COVID-19) is a public health emergency of international concern and a challenge to psychological resilience [1]. As Lee Hsien Loew, the Prime Minister of Singapore, said: "This virus may have started in China, but it does not respect nationality or race and does not check your passport before it enters your body; so, anyone can be infected" [1]. Patients with severe COVID-19 need to be hospitalized and mild or some moderate patients without underlying chronic conditions can receive care from family caregivers [2].

Rapid spread of the disease throughout the world in a very short period and transformation of the disease into a pandemic has led many managers and policy makers to devise practical solutions for preventing and controlling the disease. In this regard, high-level managers and planners in the health care system try to solve health problems using appropriate methods and solutions. Furthermore, this disease can be managed and controlled appropriately by recognizing the challenges. To this end, the family and external environments should be analyzed comprehensively, since knowing the environment is an essential aspect of planning.

In the field of health, corona disease management requires continuous monitoring and evaluation based on various methods and models. In this regard, Strengths, Weaknesses, Opportunities, and Threats (SWOT) model can analyze the challenges of managing, preventing, and controlling COVID-19. Based on this model, we can maximize the strengths and opportunities of a program and eliminate or minimize its weaknesses and threats by choosing an appropriate strategy [3]. Xiao-Guang Yue (2020) assessed risk

management in corona. He said that in order to reduce problems in the family, early warning and the existence of a telephone system to respond to people's problems should be considered. Finally, He found the first and most important step in preventing and controlling the disease was to restore people's self-confidence [4].

Wang (2020) in China analyzed the SWOT reshaping the emergency system; adding health emergency departments to universities and other institutions; adjusting the economic structure and strengthening international and domestic linkages; strengthening public intervention in responding to public health emergencies and social support were important [5].

Due to the reported the rapid spread of COVID-19 epidemic and despite to the experience of responding to the SARS epidemic and data from the Chinese Health Statistics Yearbook, There is still a gap felt between the provided cares in family and environment and prevalence of COVID-19. Therefore, identifying the challenges ahead using the experiences of patients, managers, and staffs can help health care providers to plan and develop appropriate methods to support these patients.

## **Materials**

### **Study design**

This qualitative study was conducted using directed content analysis. Qualitative research is an important tool for understanding emotions, perceptions, and information about the complexities of human responses which cannot be obtained through a quantitative study. Content analysis is a systematic coding-and-categorizing approach which involves a process of understanding, interpreting, and conceptualizing the underlying meanings of qualitative data [6].

### **Sample and setting**

This study was conducted in 2020 in Jiroft, which is located in the southeast of Iran. The study environment was selected considering qualitative nature of the study. A total of 15 people (9 patients with COVID-19, a physician, a pharmacist, a head of the department of infectious diseases, a hospital manager, a nurse, and a head health network) participated in this study. After the researcher got acquainted with the participants and received their verbal consent to participate in the study, the interviews were conducted in a special isolated area affiliated to the university. The participants were selected through purposive sampling method. Based on the inclusion criteria, health officials, caregivers, and patients who were able and willing to share their experiences related to the prevention and control of the disease entered the study. Additionally, maximum variation in terms of age, gender, educational levels, occupational status and residential location was considered to obtain comprehensive and rich data. Sampling was continued until saturation of themes was achieved.

### **Data collection**

Data were collected from May to July 2020. First, a list of telephone number of patients and caregivers was prepared from the city health center was obtained. The objectives of the study, the method of data collection, and the voluntary participation in the study were explained to participants. The time and place of the interviews were determined by the patients and caregivers. The interviews were conducted in the hospital and health center.

Open-ended, semi-structured interviews were employed for data collection. Initially, a few questions designed to acquaint the authors with the participants and create a friendly environment were asked. Then the interviews were directed to the study purpose. Some of the questions were: "What supportive problems have you experienced since your disease was diagnosed?", "Please describe your caring experience of patient with coronavirus disease in as much detail as possible." "What weaknesses did you observe?" "What positive experiences do you have with the disease?" "Were patient care services well-provided?", "Are patients with corona virus supported satisfactorily?" Proportionate to the answers, in-depth and exploratory questions were put forth, like 'Could you explain more?' All interviews were conducted by the corresponding author and recorded with the participant's consent. Every interview session ended with the question "Is there anything else you want to add, which I did not ask?" Interviews lasted 45 to 60 min, were digitally audio-recorded with participants' permission, and transcribed verbatim. To ensure data confidentiality, an ID number was assigned to each participant and the transcripts were without personal information. Data were collected until data saturation was reached. After interviewing 15 participants, it was observed that no additional data could be obtained. To ensure that there was no other new information; the researchers conducted 2 more interviews

## **Data analysis**

Data analysis was conducted according to the method proposed by Graneheim and Lundman [7]. The aim of qualitative content analysis is to achieve a condensed and extensive description and understanding of the phenomenon [8].

Data were analyzed in 5-step. Firstly, two of the authors (AKh, EM) reviewed the transcribed interviews individually several times to achieve a general sense about whole content obtained. In the second step the text was divided into meaning units that were condensed. Each meaning unit comprised words and sentences containing aspects related to each other. In the third step, the authors (EM, FGH, FK) determined and formulated meanings from these significant statements. In the fourth step, the codes were classified into subcategories and categories based on similarities and differences. Finally, the underlying meaning and content of the data were extracted, and themes were formulated as the expression of the latent meaning of a text. A sample of the process of analysis used in this study is shown in Table 3. During data collection and analysis, the researcher wrote down any reflections or hints related to the data in a memo to be used for future interviews. The trustworthiness of the study was tested using Guba and Lincoln criteria, expressed by Streubert and Carpenter [9].

## **Trustworthiness**

Accuracy and reliability of the data were ensured by checking the codes with the participants, revision by supervisors, and long-term involvement with the data, as the researchers was involved with the subject, data, and patients for over a year. Three researchers visited each participant before the interview to build trust and to create the grounds for an in-depth interview. A portion of the text along with the initial coding was shown to the participant, who compared the degree of homogeneity between the ideas extracted by the researchers and his original opinions. Supervisor revision was obtained by presenting the concepts and classifications developed from the data to experts of qualitative research to control the degree of fitness until a consensus was reached. The corresponding author translated the categories and quotations from the interviews from Farsi into English accompanied by English native speakers, and the results were then fine-tuned by professional editors

### Ethical considerations

This study was approved by from the Ethics Committee of Jiroft University of Medical Sciences (number: IR.JMU.REC.1399/006). Oral and written informed consent was obtained from participants before beginning the study and before the interviews were recorded. Participants were free to enter and exit the study at will and were assured of the confidentiality of the information. Participants were allowed by the researcher to call or e-mail regarding any questions or information

## Results

The age of the participants ranged from 28 to 53 years. Ten of the participants were female and 5 was male. Twelve of the participants were married. Five of the participants were of health care provider and 10 were patient (Table 1,2). An example of a qualitative content analysis process is shown in Table 3. The theme was referred to as 'Benefit and Barrier'. The meanings of the aforementioned categories and direct quotes of the participants are thus explained. After analyzing data, we extracted a total of 228 codes, 17 Sub-categories, 4 category and 1 Theme (Table 4).

**Table 1** Characteristics of the patients with corona participating in the study

Participants	Gender	Age	Education	Marital status	Occupation	Duration of hospitalization(day)
P1	Female	33	Illiterate	Single	Housewife	2
P2	Female	36	Bachelor	Married	unemployed	7
P3	Male	38	Diploma	Married	Farmer	10
P4	Female	45	Primary	Married	Housewife	25
P5	Male	53	Associate	Married	Retired	4
P6	Female	30	Bachelor	Single	Employee	6
P7	Female	34	Diploma	Married	Employee	5
P8	Male	44	Primary	Married	Self-employed	9
P9	Female	28	Bachelor	Single	Employee	5

### e 2 Characteristics of the healthcare providers and managers participating in the study

Participants	Gender	Age	Education	Occupation	Marital status	Work experience (years)
P1	Female	51	Physician	Head of the Health Center	Married	24
P2	Male	33	pharmacist	Head of the department of food and drugs	Married	10
P3	Male	38	Master of science	Head of hospital	Married	10
P4	Female	46	Master of science	Head of the Health Center	Married	20
P5	Female	51	Bachelor	Director of Infectious	Married	29
P6	Female	41	Bachelor	Nurse	Married	18

**Table 3** Sample of qualitative content analysis process

Category	Subcategories	Code	Meaning units
Threats	Sanctions	Poor diagnosis	If the polymerase chain reaction (PCR) diagnostic kit was available and enough, it could be performed for outpatients from the initial stages of diagnosis. Consequently, diagnosis was more accurate and definite. (p.3)
		Wandering in the abyss of ignorance	A very crowded wedding was held in our village. The cook who made the food had corona and about 300 people were infected. Rural people do not take this disease seriously. (p. 7)
	Conflict between doubt and certainty	Positive and negative impacts of the cyberspace and distrust of the media	We tried to keep in touch with the patients and suspicious cases. Due to the various false messages and videos, people were skeptical about whether we were really the medical staff and whether we were telling the truth or not. So, they did not answer their phones. (p.10)
		Different hidden layers of the disease	Due to the unknown and ambiguous nature of the disease, we thought that the virus would die as the weather gets warm. However, we were surprised when the number of patients went very high in the warm areas. (p.4)
	Stigma	Being afraid of patients, social stigma	Although 50 days had passed since I got the disease, my friends were still afraid of me. My co-worker did not come to the room where I worked and this made me upset. (p. 12)

**Table 4** Categories and sub-categories related to the patients, staff, and managers dealing with COVID-19

Theme	Category	Sub-categories
Benefits and Barriers	1. Strengths	1.1 Each Home as a Health Post
		1.2 Various media
		1.3 Spirituality and Supporting ideals
		1.4 Adaptive mechanisms
	2. Weaknesses	2.1 Low understanding of risk of disease
		2.2 Lack of manpower and relief resources
		2.3 Weakness in knowledge and Skill
		2.4 Lack of appropriate tele-education and tele-medicine programs
		2.5 Infrastructural constraints
	3. Opportunities	3.1 Empathy and social participation
		3.2 Promote of skills
		3.3 Obey the rules
	4. Threats	4.1 Sanctions
		4.2 Wandering in the abyss of ignorance
		4.3 Conflict between doubt and certainty
		4.4 Hidden layers of the disease
		4.5 Stigma

## Strengths

This Category was about the Strengths in health system that which helped to better prevent and control COVID-19. The Sub-categories were *Each Home as a Health Post, Various media, Spirituality and Supporting ideals, Adaptive mechanisms.*

### Each Home as a Health Post

*"In the design of each home as a health post, each house had a health ambassador and was able to prevent the spread of the corona virus by caring for and educating its family members." (Head of the Health Center, 46 years old).*

### Various media

The health message is effective when conveyed through a variety of educational media.

*"In terms of information, they warned us several times through loudspeakers in the city and village. Operators of the 4030 system, which is an evaluation system for screening and preventing corona virus, also called us and followed our health status from moment to moment." (patient 1, 33 years old).*

*A head health center stated: "We had a good status in terms of facilities, banners, posters, billboards, televisions of offices, and loudspeakers of mosques. All individuals were informed and warned about the corona virus. Despite the very severe sanctions, I think efforts of the healthcare staff were satisfying."(Head of the Health Center, 46 years old).*

## **Spirituality and Supporting ideals**

The healthcare staff reported working more than normal work hours. Based on the reports, they were not tired of heavy and long shifts. They were striving for their ideals of gaining God's satisfaction.

*"During this time my faith in God reached its peak because I heard that some people who were physically healthier than me died, but my wife prayed at my bedside and comforted me. God gave me energy, this was mere grace of God." (patient 3, 38 years old).*

*"I saw a midwife changed diaper of a baby with corona and did not wait for the service personnel. I also witnessed that a nurse gave mask to a poor man". (patient 7, 34 years old).*

## **Adaptive mechanisms**

All caregivers and patients used some mechanisms to reduce carerelated stress. They used a combination of problem-oriented and emotion-oriented strategies to reduce their stress.

*I resisted the negative energy. I told my friends to be positive and think about health". (patient 9, 28 years old).*

## **Weaknesses**

This Category was about the Weaknesses that were not seen and made the care experience challenging and difficult for caregivers, managers and patients. The Sub-categories were *Low understanding of risk of disease, Lack of manpower and relief resources, Weakness in knowledge, Lack of appropriate tele-education and tele-medicine programs, Infrastructural constraints, Lack of readiness to make a vaccine.*

### **Low understanding of risk of disease**

Experts thought that the virus is weak. This low understanding showed that the necessary precautions were not taken against the disease.

*"Many people were unprepared when the disease started. Our crisis headquarters thought that this was a small problem and our stockpile of personal protective equipment was running dangerously low. They did not expect such a crisis."( Head of the department of food and drugs, 33 years old).*

## **Lack of manpower and relief resources**

*"We experienced a lot of stress, we did not have a psychologist or a social worker in the hospital. A number of nurses, midwives, and doctors were scared and could not give proper psychological counseling to patients, but there was no one to comfort them. The presence of a psychiatrist and psychologist should be mandatory in the hospital. Now, We dont have psychiatrist and psychologist."*( Director of Infectious, 51 years old).

## **Weakness in knowledge and Skill**

Many participants did not have enough knowledge about the type of virus and its mutations. In addition, knowledge of the use of contraceptives such as disinfectants was poor. they applied all of their previous care knowledge and experience, but the patient's symptoms did not improve significantly or recur.

*A Head of hospital said: "I do not know the exact details of the virus, it is not clear to us. This has made it difficult for us to fight the virus. We need to talk more about disinfection and the percentage of alcohol required, many of our computers burned down. We have to consider the details. I have this knowledge, but in practice I doubt it."*( Head of hospital, 38 years old).

## **Lack of appropriate tele-education and tele-medicine programs**

Tele-education and tele-medicine are the two main arms of preventing and controlling COVID-19.

*"At the moment, our biggest problem and weakness is lack of the tele-education and tele-medicine programs. By implementing the tele-education program, we can provide health and medical services to people without asking them to leave their homes and refer to the health centers. It is not possible to force people to stay home without providing them with the required health service."*( Nurse, 41 years old).

## **Infrastructural constraints**

This sub-category included the experts' viewpoints about the inadequacy of infrastructures in terms of physical space, quality deficiencies, and availability of the materials needed to prevent and control disease.

*"We do not have an isolated room with negative pressure ventilation in our hospital. According to the standard, our isolators should have negative pressure ventilation, but because we do not have such a room, we isolate patients with coronal in a separate room with a separate bathroom, so that they do not have any contact with others."* (Head of the Health Center, 51 years old).

*Furthermore, a head of hospital cited: "It takes about 48 hours to prepare the tests' results after sampling in our university. During this period (when the patient is waiting for the test results), a large cost is imposed on the hospital and many human resources are involved. In addition to costs, the patient is exposed to high levels of stress due to distance from family."* (Head of hospital, 38 years old).

## Opportunities

This Category was about the Opportunities that Outside the health system which helped to better prevent and control COVID-19. The Sub-categories were *Empathy and social participation, Promote of skills, Obey the rules.*

### Empathy and social participation

A large number of people and departments volunteered to cooperate, which reduced the workload on healthcare staff. Furthermore, the family members support patients *and instill hope in them* to survive the disease.

*"The police, revolutionary guard corps, Red Crescent, benefactors, and people disinfected streets and passages every night. People also sewed masks benevolently." (Head of the Health Center, 51 years old).*

Family support of patient, especially emotional support, was recognized as the most important factor in preventing and controlling the disease.

*"My wife was pregnant when I was admitted in the hospital; she took after me with great effort and patience. Her sacrifice motivated me to try to get better. It was not the medicine that helped me get better, but my wife's love." (Patient 3, 38 years old).*

*"Now, I realized how important we are to each other, I feel we got closer." (Nurse, 41 years old).*

### Promote of skills

Some caregivers, especially younger individuals, stated that the experience of caring for a critically ill patient made them stronger and more responsible and provided them with a sense of growth.

*"I became much stronger, as I gained experience and skill how to protect myself from fear and stress." (Nurse, 41 years old).*

### Obey the rules

When regulations are enforced more strictly, people obey.

*"Noruz holidays and traffic restrictions in our country were a great opportunity that enabled us to prevent the virus transmission to people. If the traffic restrictions continued for several months after the holidays, maybe we could control the disease." (Head of the department of food and drugs, 33 years old).*

## Threats

This Category was about the Threats that were outside the health system Which made it difficult to prevent and control the disease. The Sub-categories were *Sanction, Wandering in the abyss of ignorance, Conflict between doubt and certainty, Hidden layers of the disease, stigma.*

## **Sanction**

Severe sanctions against Iran slowed the prevention and control of the disease

*"If the PCR diagnostic kit was available and enough, it could be performed for outpatients from the initial stages of diagnosis. Consequently, diagnosis was more accurate and definite. Also the people ask about error rate of the tests; the fact that these tests had an error rate of about 40% made the system very uncertain." (Director of Infectious, 51 years old).*

## **Wandering in the abyss of ignorance**

Considering prolongation of the disease and closure of the wedding halls, people held weddings at home, which caused crowds and a lot of communication among people.

*"A very crowded wedding was held in our village. The cook who made the food had corona and about 300 people were infected. Rural people do not take this disease seriously." (Patient 5, 53 years old).*

Regarding disposal of the personal protective equipment, a large number of people and personnel were unaware of the instructions on separation and disposal of the wastes.

*"Patients and suspects who use masks and personal protective equipment are told to throw the generated waste in special bins, but there are a lot of used masks and gloves outside the hospital and on the side of the streets." (Head of hospital, 38 years old).*

## **Conflict between doubt and certainty**

The participants' internal struggle about what is right or wrong was one of their major concerns.

*"Virtual networks have both positive and negative effects. After some businesses were disrupted, some groups in the virtual networks started destroying and blaming the health care system. Now, people do not accept the health care system recommendations". (A head health center, 46 years old).*

*The patient said: "Since there are so many fake messages, videos and channels, people were skeptical about whether the healthcare staff were telling the truth, Therefore, people did not answer their phones." (Patient 8, 44 years old).*

## **Hidden layers of the disease**

Corona virus is an emerging disease; in other words, a new discovery is made about it with each passing day.

*"Given the unknown and ambiguous nature of the disease, we thought that the Corona virus would die as the weather gets warm. However, we saw that the number of patients increased in the warm season." (Head of the department of food and drugs, 38 years old).*

## stigma

Some factors, such as the community attitude, can explain the vulnerability caused by social support. If social relationships are not maintained at a proper level, it can have the opposite effect.

*"I want to be treated like a normal person when I go out, but people bother me and I feel depressed"*  
(patient 3, 38 years old).

## Discussion

According to the findings of the study, SWOT analysis was effective in the prevention and control of the disease in health system, patients and families. because it pointed toThe findings showed that the health system, patients and families with COVID-19 had undergone changes and challenges since diagnosis of the disease, so that poor preparedness in the face of crisis, and economic pressure and hidden layers of the disease challenged Iran highly. One of the main challenges was the lack of a tele-education and tele-medicine program, which interrupted the provision of services to control the disease and treat patients. In addition to the weaknesses and threats, some strengths and opportunities were reported such as each home as a health post, spirituality and supporting ideals, empathy and solidarity among people, as well as family support for patients.

Application of diverse media and use of cyberspace were considered as a strong support for preventing the disease. Announcement of the alert status by loudspeakers from mosques and special vehicles, the 4030 self-assessment system, were among the effective measures. Wangn and Zhifeng (2020) reported that most people were provided with the preventive recommendations through cyberspace [5]. Application of a variety of methods and media in different times and places, where patients receive the desired message seem highly effective. In this regard, Fehr and Weike Zhou found that using a variety of media to convey precautions, such as frequent hand washing and wearing protective masks during an outbreak could enhance the public and students' awareness and practice [10, 11]. In the present study, empathy, participation, and support of the patients' families were considered as the most important opportunity and effective strategy to prevent and overcome the corona disease crisis. In the study by Bao-Liang Zhong (2020)[12], 98% of the Chinese people wore masks and observed social distance when leaving home, but the voluntarily empathy, support, and participation of people was much higher in Iran, so that they disinfected centers, streets, and homes voluntarily and for free. Furthermore, the patients' family members provided support that improved the patients' condition and reduced the treatment costs. In our study, the key to patients' treatment was emotional support, not medication.They also reported that emotional family support was one of the basic needs of such patients, which may cause the most damage if not satisfied [13]. Research findings have well established the relationship between social support and increasing the quality of caregiving. In the presence of social support, patient care becomes a valuable experience for families and health care providersy caregivers in addition to meeting patient need [14, 15].

The program of “each home as a health post” in Iran, had caused families to participate in following the instructions. A study was conducted in Iran in 3 provinces of Semnan, Qazvin and Kashan showed that satisfaction with the program of “each home as a health post” was 96% and the knowledge and practice of families regarding the prevention and control of diseases was higher than 50% [16]. Also in the study by Zareipour and et al. showed that involvement of health ambassadors and families in COVID-19 prevention had increased [17]. Perception of risk is a key component of behavior change theories. In the present study, the risk perception of COVID-19 was low, so that this disease was considered as influenza. In confirmation of these findings, Michael S reported that 75% of the participants were not worried about their condition and felt that this disease had no effect on their working process. Poverty and low level of education were among the factors that led to a lower perception of risk among the participants [18].

Lee reported that the risk of COVID-19 was 51%. Therefore, it is necessary to increase the organizations and individuals' level of preparedness in emergencies caused by COVID-19 epidemic [19]. However, Antonio Olivera-La Rosa showed that only people with lower social desirability were less susceptible to the disease. According to the evidences, sicker people, individuals who witnessed the disease in their relatives, and those who were more socially trusted were more sensitive [20]. Lack of a tele-education and tele-medicine program was one of the problems and weaknesses in the Iranian health care system during the corona. Many people had to go to health and medical centers to receive prevention and treatment services, which continued the chain of disease transmission. However, in Singapore and the United States, patients and healthy people received all counseling and treatment services at home using tele-health [21, 22]. In the study by Dima Dandachi, most tele-health providers considered the program as an acceptable and user-friendly option [23].

In current study , the number of healthcare personnel who have tested positive for COVID-19 was increasing every day and the number of manpower in hospitals and health centers was decreasing. Jia Wang also complained about the lack of a professional and trained team to face this crisis [5]. Therefore, lack of preparedness and planning in emergencies can interrupt rendering services to patients and is considered as one of the main obstacles in preventing and controlling the corona disease. Since Iran's economy has long been subject to economic sanctions, any effective health action is affected by sanctions and economic pressure. In confirmation of this point, Kermanshahi and Parvinian (2012)[24] reported that nurses in Iran do not act on evidences due to lack of time and staff. Therefore, patients do not receive sufficient support. However, development of the disease and lack of manpower can be used as an opportunity to reform and develop a public health emergency management system. Findings of present study showed that the individuals and health care workers were not at an appropriate level of knowledge about COVID-19 and application of disinfectants. Similar to our findings, Bhagavathula and Mubeen reported that 61% of the participants had poor knowledge scores, while age and occupation were the effective factors on knowledge[25, 26].

Due to increased number of COVID-19 cases and resource constraints in health care systems, the role and responsibilities of the families and health care providers has become more important. With the onset of the outbreak of COVID-19, the lack of medical facilities, equipment, and staf has affected health care

systems and community members around the world. The result of some studies showed that lack of access to medical equipment for caregivers made caring for COVID-19 patients a challenge

In the study of Rafati et al., resource constraints were considered as the most important challenge in preventing of COVID-19 [15]. In such pandemic emergencies, health policymakers and other community members must provide a comprehensive system of support for them. A system that, in addition to provide informational and instrumental support such as up-to-date information about disease and care, encourages them to continue their care. Due to limited physical contact, a telehealth support service should be developed for family caregivers' education and consultation. Using telephone-based follow-up and web-based technology may be effective strategies to facilitate efficient and effective cares.

People's compliance with the rules is also one of the opportunities that can control COVID-19. In the case of Iran, shops, offices, and organizations tried to control the disease by shifting employees and classifying guilds, offices, and contacts. Moreover, Xu TL reported that the health care staff cooperated in monitoring active cases, diagnosing and managing cases rapidly, following patients closely, and quarantining those in contact with the patients [27]. People also followed the rules and regulations and stayed at home. Many countries passed the Mental Health Emergency Act in response to the global coronavirus epidemic [28].

Food intake and meal patterns (type of food, uncontrolled eating, number of snacks, and number of main meals) were unhealthier during home quarantine. According to the participants, wandering in the abyss of ignorance caused by lack of knowledge about medical and nursing practices was one of the main concerns. In addition, medical staff complained about constant changes in instructions and poor knowledge. In the same vein, Albert and Manglian [29, 30]. found that patients with heart failure should have accurate information about their condition. Furthermore, caring nurses are required to have the necessary and sufficient knowledge as well as the necessary calmness and motivation to spend enough time with patients. From the participants' point of view, delays in diagnosis and treatment by the health care team cause more confusion.

Rapid sharing of scientific information is an effective way to reduce the public panic about COVID-19. This is a key measure in providing real-time guidance to epidemiologists who can plan appropriately to control spread of the disease [31]. At the beginning of a potential crisis, while the same objective data are available to everyone, people have different interpretations of the same information. Our participants mentioned that they were confused due to the large variety of virtual networks as well as the falsity of news and information in these networks. They also noted loss of trust between the public and the health care staff. According to Moulinathan and Schliffer, individuals tended to use credible news sources and personalities in accordance with their political views and believed that the sources of such news were more credible [32]. Individuals' different perceptions from the same messages and events influenced their decisions and behaviors. Therefore, reliable relationships among the media, healthcare team, and public can help patients significantly. In addition, uncertainty about news and information causes stress in patients and delays their referral and follow-up treatment [33].

Our findings show that inappropriate social reactions, including stigma and degrading views, reduced social relations. According to Movahed et al. [34], humans are social beings, but a pathological and erroneous attitude towards COVID-19 patients reduced their presence in society. Although corona disease is similar to the flu, the labels and differences of COVID-19 have prevented active presence of these patients in the community. Eng et al. also stated that patients who experience social isolation are two to four times more likely to develop the illness and mortality than those who experience social communications [35].

Hidden layers of the disease along with its stigma and discrimination have facilitated its rapid spread. Due to the emerging nature of the disease and its different mutations, its definitive treatment is not possible. Given the facts that a new face of the disease emerges every day and its stigma isolates the patients, the disease spreads very quickly [36]. Also, the results of a qualitative study on patients with COVID19 indicated patients reported they had experienced symptoms of COVID-19, sometimes got better and sometimes worse during diferent days of illness [37].

### **Limitations and strengths**

Despite of COVID-19, Interviews time was reduced. Also due to the nature of qualitative research, the results may not be generalizable to other patients and health care providers. However, data are gathered from interviews with patients and health care providers from both rural and urban areas and different age groups. The strength of this study is that it provided the patients and health care providers perceptions using SWOT analysis, which were not studied previously. It seems a qualitative approach could be an appropriate method for studying experiences of patients and health care providers.

## **Conclusion**

At the onset of the disease, people were less susceptible to the disease and caregivers were less prepared for the Covid 19 crisis. There was also a large gap between WHO standards and the quality of care in our study. SWOT analysis was recognized as a good tool for prevention and control of Covid-19 because with the existing strengths and opportunities, we can reduce weaknesses and threats. Therefore, it is recommended to strengthen the structure of tele-education and medicine, the program of Each Home as a Health Post, a valid educational medias. In addition to the health system, families should also have more psychological and emotional involvement and support from patients

## **Declarations**

### **Acknowledgements**

The authors extend their appreciation to the participants for their cooperation throughout the study. They also appreciate the assistance of the members of the Ethics and Research Boards of Jiroft University of Medical Sciences. We also appreciate Hamide Behroueian for editing the manuscript in terms of its language and readability.

## Authors' contributions

AKH and EM, initiated and developed the proposal of study. FGH, FK and FR performed interviews and all authors participated in data analyze. EM and AKH wrote the first draft of the manuscript and all authors approved the final draft of the manuscript.

## Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the ethical committee of Jiroft University of medical science (IR.JMU.REC.1399/006).

## Availability of data and materials

All data analyzed during this study are included in this published article

## Ethics approval and consent to participate

The proposal for the study was submitted for ethical approval to the Jiroft University of Medical Sciences Ethics Committee (Ethics number IR.JMU.REC.1399.006). Before starting the data collection process, the objective of the study was clearly explained to all home caregivers who participated in the study and informed consent were obtained. They were also assured of the data confidentiality and the right of withdrawal from the study at any time. One of the caregivers refused to participate in the study because of his busy schedule.

## Consent for publication

Not applicable.

## Competing interests

The authors declare no potential competing interests.

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