A B S T R A C T

Aims Due to the widespread outbreak of COVID-19, thousands of people have died, and millions of people have been infected around the world, putting communities at great risk. The present study assessed the lived experience of people infected by COVID-19.

Participants & Methods This qualitative research with a phenomenological approach was conducted in March 2020 in Boroujerd, Lorestan. Using the theoretical sampling method, 18 citizens were interviewed. Data were collected through semi-structured interviews. The Colaizzi method was used for data analysis, and Guba and Lincoln validation model was used for scientific validation of research findings.

Findings After qualitative data analysis, seven main themes were identified, including the dimensions of health and education (highlighting the role of health care providers, improving personal health, stagnation of educational activities, the need to improve media literacy), family (family-centered lifestyle, generational convergence and family cohesion), social (disruption of relationships and social interactions of individuals, increasing social trust in health care institutions, reproduction of social inequality), cultural and religious (spirituality, cultural weakness), economic (disorder and recession following disruption of business and production), sovereignty and politics (organizational integrity, bioterrorism), psychological (anxiety and social phobia).

Conclusions COVID-19 has seriously affected people’s daily life and mental and social health in Boroujerd.

Keywords Coronavirus; Lived Experience; Qualitative Research
Introduction

Although the globalization of interactions and extensive communications, migration, traveling inside and outside of the country by air, sea, or land, and the transportation of more people in vast geographical areas has brought benefits to human beings, it has also been associated with modern hazards and risks [1]. COVID-19 is one of the new hazards that was first identified in China and endangered public health. Coronavirus are a large family of viruses that can cause diseases, such as the common cold or more severe diseases, such as Middle East respiratory disease syndrome (MERS), or even more severe, such as severe acute respiratory syndrome (SARS) [1].

The international community is experiencing one of the most critical adverse health conditions in recent decades due to the COVID-19 pandemic and its consequences, including affecting hundreds of thousands of people and the death of tens of thousands of people [2]. Today, SARS-CoV-2 has become a pandemic and has caused critical conditions around the world [3]. According to studies on viruses associated with acute respiratory distress syndrome, each virus has a specific pathogenic dose, ranging from 10.2 to 10.3 viral particles for the influenza virus [4]. Due to the emergence of COVID-19, less is known about its pathogenicity dose, but it is clear that the very low pathogenicity dose of this virus can cause its rapid spread [4].

One of the consequences of COVID-19 was the closure of religious places and making new changes in the style of religious rites, and people, especially young people, used virtual social networks to form virtual delegations, etc., due to the need to observe physical distance [5]. It has also had consequences, such as family breakdown and increased financial stress [6]. Therefore, this crisis, because of exacerbation of the recession, reducing the number of marriages, and increased anxiety and uncertainty about the future, will seriously impact reproductive behavior and reduce fertility levels [7]. Also, after the closure of cinemas and restaurants, people are spending more and more time online, leading to their Internet addiction [8]. Also, the COVID-19 crisis and its rapid spread have far-reaching political, social, economic, health, and medical consequences for societies and have required governments, organizations, and managers to make several strategic decisions [9]. The ignorance of COVID-19, the lack of effective drugs, the inefficient use of information technology in the management of public opinion, and the lack of a cross-sectoral view of health caused fear and emotional reactions in society [10]. There are three types of social issues: physical, corrective, and moral. The socio-physical issue reflects a situation that the general public sees as a threat to their health, success, and well-being. In catastrophic events, such as floods, earthquakes, and diseases, those affected by these events face serious issues [11].

Some diseases in past centuries, such as cholera, plague, syphilis, were considered as physical or medical problems due to lack of knowledge or means of prevention and control; however, due to the progress and expansion of knowledge in the medical sciences and the promotion of the health system in the field of prevention and control and treatment of diseases, they have not considered a medical issue today. They are regarded as social issues because the recurrence of the disease can be caused by the inefficiency of the educational system, the lack of information in the mass media, the public resistance to the observance of health guidelines, weakness of the policy of organizations involved in public health, being an artificial disease, etc. Therefore, changing social attitudes and eliminating social weakness are necessary. Parsons, as a sociologist, shifted from constructivism to structural functionalism by writing a book, "The Construction of Social Action". In this school of thought, the institutions and organizations of society are important in terms of their roles. In other words, the social system is a set of social roles, and in each system, there are four different and simultaneously related subsystems (biological, personality, cultural, and social) that facilitate the affairs available in each society. In this approach, illness impairs our ability to play our role as workers, employees, and family members. The structural-functionalist approach believes that social institutions are interrelated and that the changing one causes the change of other institutions. In this view, health problems are often the result of changes in other social institutions [11]. Thus, in this approach, health is necessary for all people to play their daily roles. Illness or inability of people to perform their daily tasks disrupts the functioning of society. Among other approaches in the field of health, the approach of interaction is symbolic. According to this view, the meaning of health and disease differs from one environment to another and relies on the definition that people have of the natural state [12]. The school of contradiction links health to inequality and links disease patterns to social inequality. From the perspective of this school, the affluent classes of society have more health [12].

One of the unique features of COVID-19 is its various dimensions and effects on people's daily lives. However, due to the emergence of this disease, no specific sociological research has been conducted on people's lived experiences in dealing with COVID-19. Therefore, the present study sought to express interpretations and semantic implications of people dealing with COVID-19.

Participants and Methods

This qualitative research with a phenomenological approach was conducted in March 2017 in Boroujerd, Lorestan. Eighteen people were selected using theoretical and purposive sampling. In order to achieve a more desirable result and better evaluation,
efforts were made to select people living in Boroujerd meeting the characteristics of the research (such as samples from both genders, with different levels of education, and different occupation and economic classes).

Common techniques in data collection in phenomenological research include observation, interview, field recording, and documentation; however, a combination of these methods is often used \[^{[13]}\]. We used a semi-structured interview for data collection in this study. The interview process continued until theoretical saturation was reached. Note-taking and voice recording were used during interviews through the applications available on the smartphone. Simultaneous use of both methods caused both to compensate for disadvantages of each technique and enhance advantages. At the beginning of the interviews, participants were asked about demographic characteristics (age, level of education, marital status, occupation, economic class status, and being infected (the samples or others) with COVID-19.

The present study was approved by the Research Ethics Committee of the Grand Ayatollah Boroujerdi University. In order to comply with ethical principles, the confidentiality of the identity of the interviewees, obtaining informed consent, providing complete information about the objectives of the research, and how to use the research findings were considered; therefore, they could decide whether or not to participate in the research. In order to maintain the accuracy and robustness of the data and reduce the risk of providing incorrect and irrelevant information by the interviewees, efforts were made to ask questions uniformly and away from ambiguity and bias to obtain the robustness and accuracy of the collected data. Each interview took approximately half an hour and was performed in public places, such as offices, shops, parks, and the street. The questions were posed with an open-ended question and ended with a confrontational question. The interviewee’s answer to the open-ended questions may have been based on the first information in his mind. During the open-ended and face-to-face questions, questions arose from the theoretical and experimental literature about lived experiences during the COVID-19 outbreak. These questions are based on scientific literature or theoretical assumptions. In these interviews, the relationships between the questions helped to make the interviewees’ knowledge more explicit. The assumptions in these questions were presented to the interviewee as a suggestion, some of which were accepted or rejected based on their theories.

Colaizzi method was used to analyze the data \[^{[13]}\], in which there are seven steps to understand the phenomenon, which are as follows:
1. Initial encountering with COVID-19: In order to understand people’s feelings and experiences about the virus, all interviews were recorded and studied several times;
2. Extraction of important sentences: After studying all the descriptions of the participants, the meaningful information and the statements related to the considered phenomenon is underlined, and consequently, important sentences are extracted;
3. Extracting the formulated concepts: in this step, the meanings are formulated, and the meaning of important sentences are realized about the dimensions of this subject;
4. Putting the formulated and related meanings in clusters related to the COVID-19;
5. Combining the results as a comprehensive description of people’s experience;
6. Formulating a comprehensive description of the subject of analyzing the effects of COVID-19 on people's daily lives;
7. Final validation of the findings: in the present study, the researcher attended the place of the research to observe people’s perception directly; he then discussed topics with other people to ensure interviews and observations to ensure that the contents of the interviews do not result from the researcher’s mental and theoretical biases. In order to scientifically validate the research findings, the researcher, using standardizing the information obtained, made a careful note of all contents expressed by the interviewees and considered them thoroughly during the analysis. In order to confirm the reliability of the data, they were reviewed by some university professors and experts. Also, using the peer control technique, an attempt was made to inform the respondents about their reactions in the reporting stage by presenting data analysis and results of the contents and themes of the interviews. To scientifically validate the research findings, the Guba and Lincoln validation model was used, in which four basic issues are considered: verification, reliability, credibility, and transferability \[^{[13]}\]. We build trust during the interview by ensuring the samples that their information would be kept confidential were maintained, and then the participants were interviewed.

**Findings**

The participants’ demographic information is presented in Table 1.

The parts of the interviews relevant to the subject were extracted and coded. Then, axial coding was performed, by which the codes similar in meaning were introduced as a concept, and these concepts represent the concept of one or more codes, and finally, after extracting the axial concepts, the classification of the concepts was presented (Table 2).
Improving the level of personal health: The concepts of illness and physical health are found in all cultures and societies, and both traditional and modern medicine is used for care. Public health care, such as hand and face hygiene or disinfection of objects and equipment at home or work, has a special role in preventing the disease. Behrouz, a taxi driver, said: "Every day I clean the car with a solution of water and a disinfectant and also for no money exchange, I put a POS in the taxi".

Stagnation of educational activities: Ministries of Education, Health, Treatment and Medical Education, and Science, Research, and Technology as educational institutions in training specialized and skilled personnel are responsible for facilitating the participation of individuals in economic and social developments and are the key to the development of society. Today, these ministries are used as a yardstick to assess and measure the progress and development of society. Despite their great importance and is considered the first foundation of development, the closure of these educational centers will cause great damage to the country's human capital. Hussein, an undergraduate student, said: "For about two weeks now, classes and universities have been closed and announced that it will not be formed until the end of the year; this means that all educational activities will be closed for a month. This will definitely be detrimental to the country".

The need to raise the level of media literacy associated with COVID-19: The COVID-19 has introduced a new biosocial approach to virtual social networks. Today, funerals, classrooms, science meetings, etc., have changed due to the prevalence of COVID-19. COVID-19 has led to the need to raise the level of media literacy of people associated with COVID-19, etc., to keep up with the new lifestyle, by which people can analyze and interpret media messages with insight and awareness. Shahram, a 45-year-old university professor, said: "Before the spread of the virus COVID-19, only face-to-face and in-person education was available; but today, a new system is emerging in the process of education and information transfer through the faces, which is still in its primary level and all professors, teachers, and students must adapt to the new atmosphere and the requirements of the day at different levels of education, both at education and higher education levels.

Family dimension
Home-centered lifestyle: Lifestyle and patterns of individual and family behavior, such as physical activity and sports, nutrition, makeup, and clothing, etc., have changed fundamentally following the COVID-19 pandemic. For example, the past lifestyle, which was based on the aggregation of family members and had undergone a transformation, is returning to its original state. Thus, in the past, men, women, and young people usually ate breakfast and
lunch outside the home, and the globalization of the food system (pizzas, steaks, etc., which require little time to cook) also helped to cause this trend; but recent events and health guidelines have led some to return to a healthy diet. Therefore, reviving traditional cooking at home means reviving family dinners, which has eliminated unnecessary expenses, such as going to restaurants, etc., and has satisfied and saved the consumption pattern of society. However, reviving the cooking at home also means reviving communication, interaction, and family gatherings. Ali, a 21 years old boy, said: "I was very interested in fast food; however, my family was arguing that I should not eat out, but COVID-19 prevented me from doing so to maintain my health."

**Generational convergence and family cohesion:**
In the COVID-19 pandemic, not only the time of parents' presence at home has increased, but also its quality has changed. This creates empathy, unity, cohesion, and deep connection between family members and provides an opportunity to avoid confrontation and conflict and create a convergence between them in terms of attitudes. Undoubtedly, this quantitative and qualitative presence creates vitality and freshness among family members and provides the ground for interactions and verbal communication based on wider mutual understanding and intimacy. Dariush, a 55-year-old participant, said: "Because of my busy schedule, I rarely had the opportunity to talk to my children, but since the stay home announcement, "I also tried to reduce my worries and be more with my wife and children, which I am very happy about because I feel there is more emotional satisfaction and our verbal communication is deeper and deeper."

**Social dimension**

**Disturbed relationships and social interactions:**
The consequences of COVID-19 in various cultural, educational, social, economic, etc. areas not only affect the infected people but will have a profound and far-reaching effect on the social body and the society as a whole. Fear of transmitting the virus has reduced the quantity and quality of communication, interaction, and family ties. Somayeh, a 36 years old participant, said: "We were planning to hold my brother's wedding on the occasion of the birth of Imam Ali (as), but we postponed the ceremony to next year for fear of this virus. Even our family gatherings have been affected by the virus."

**Increasing social trust in health care institutions:**
Manifestations and examples of social trust as the main factor of unity, cohesion, stability, and order in society can be explained and observed in COVID-19 so that people, with trust, faith, and surrender to the decision and will of the officials of Iran's National Headquarter Against COVID-19 and the experts of the Ministry of Health and Medical Education and following their recommendations help them in carrying out their mission to eradicate the disease. Saeed, a 35-year-old participant, said: "I did not have much to do with the officials before, that is, I did not trust them, but since the emergence of coronavirus, I have been following the news and conversations; of the relevant officials through the radio."

**Reproduction of Social Inequalities:**
Although the COVID-19 has democratically affected the rich and the poor, the literate and the illiterate, men and women, urban or rural, are vulnerable to the disease. However, according to the Conflict Theory, because people with lower economic status are less able to prepare and follow medical instructions and also because the recession of economic activities and the closure of some production facilities have made this group more vulnerable, COVID-19 has resulted in the deprivation from certain economic and social opportunities and benefits in some groups of people. Ali, a 43-year-old participant, said: "How can we go and get hygiene items and detergents and use them every day when we do not have money to feed our wife and children?" "On the other hand, they say stay at home. This is only good for the rich, not for us when we have a thousand economic problems, and if we do not go to work, we will be miserable."

**Cultural-religious dimension**

**Spirituality:**
People's religiosity leads to promoting their social health by increasing solidarity between them and preventing their mental erosion by strengthening the membership of individuals in groups, increasing their ability, and improving their social performance in dealing with their tasks commitments, and solving social challenges. In religious communities, during the COVID-19 pandemic, people find themselves in need of the help of absolute power, and they deeply call for help can be heard. Susan, a 28-year-old participant, said: "I used not to be very religious, and unfortunately, I was careless and sometimes disrespectful, but today I am more accustomed to divine values than ever before and bound to perform duties because I came to believe in my heart that science, with all its advances, is far behind theology."

**Cultural Poverty:**
Traditional beliefs prevent medical science in the prevention and treatment of the disease. Certainly, diseases in low-income groups reflect the inefficiency of a culture of preventing serious dangers that threaten people's health. The important point is that regarding such medical issues, when physicians have identified the cause and agreed on control programs for all, the general public is still frustrated about policies. Saleheh, a 23-year-old participant, said: "People need to know that there is no universal need for an N95 mask, and a regular mask is enough". This is also the recommendation of the World Health Organization; Unfortunately, cultural poverty and neglect have led to an influx of people to buy the mask and its black market."

**Economic dimension**

**Economic turmoil and recession following disruption to business and production:** The economic effects of the outbreak of the COVID-19 and
the closure of micro and macroeconomic businesses, as well as the employment issues and the rising slope of unemployment in the three activities of the economic sectors of society (agriculture, industry, and services), is an indisputable fact. This has led to the vulnerability of some jobs and the involuntary unemployment of some of the active population. Siavash, a 27-year-old participant, said: "I am married and used to work in a reception hall, but about two weeks ago, when these centers were closed according to the law, I also lost my job and now I am looking for a new job. because it is not clear when the situation will return to normal, this case has badly ruined the economic situation of the people before the new year holiday."

**Political and governance dimension**

**Organizational Integrity:** Organizations are one of the pillars of modern society; they bring about great social change and prevent any changes. Given the importance of organizations and in order to achieve organizational goals to deal with COVID-19 and its complexity, the integration of all organizations as Iran’s National Headquarter Against COVID-19 is essential and also the empathy, consensus, and cooperation of all economic, political, cultural, religious, and social organizations are required.

Sajjad, a 51-year-old participant, said: "For the first time in the history of the Islamic Republic, all institutions and organizations have been united and a national mobilization has been announced; previously, religion and politics were thought to be two separate categories, but today we see Friday prayers closed, universities closed, halls, etc. Why? "Because we all have to join hands and be together."

**Bioterrorism:** Among modern warfare, biological weapons and technology have received the most attention from terrorist and government organizations of the superpowers. Bioterrorism is the deliberate release of biological agents (bacteria, viruses, or toxins) to kill or harm humans, animals, and plants to intimidate, threaten, or compel a government or group of people to take action or satisfy political or social demands. Hence, biological weapons, both in the fields of war and terrorism, have become a very desirable tool for the enemies [14]. High production capacity, easy and simple maintenance, dispersibility, great difficulty in tracking a hostile person or persons, ability to ensure one’s force, ability to reproduce for live microbial agents, a wide range of performance from humans to livestock and agricultural products, and many other benefits have caused terrorist organizations to be strongly attracted to this new technology. Majid, a 57-year-old participant, said: "Why did only the enemies of the United States get the virus? The United States wanted to bring China to its knees for this bioterrorist attack."

**Psychological dimension**

**Anxiety and social phobia:** The COVID-19 epidemic has caused stress and mental strain, and voluntary quarantine and has also affected the social and mental health of the community. Anxiety and social anxiety caused by the COVID-19 and disrupting personal and social relationships have also become a disturbing phenomenon. In COVID-19, which has affected different countries of the world and has caused the death of many people, people’s fear of this issue can be expected; but it should be noted that to what extent this anxiety and fear is related to the disease and to what extent to other factors. Roghayeh, a 47-year-old participant, said: "I think we all have infected; however, few people have their bodies involved; and on the other hand, the general population has also their mined engaged with COVID-19. Therefore, we all have been infected with COVID-19, whether physical or mental or both."

**Discussion**

COVID-19, which was detected in Iran in February 2017, has had various effects on various dimensions of society. In terms of health and education, it highlighted the role of health care providers, health awareness and literacy, stagnation of educational, scientific, and research activities, the need to improve media literacy related to COVID-19, and improved the level of personal health in society. From the family perspective, positive results have led to changes in consumption patterns, changes in the type of food and cooking, and generational convergence and cohesion in the family institution. In the social dimension, society has faced harm and dangers, such as the decline in family gatherings, concealing family travels, and the appearance of social inequality. In the economic dimension, it has caused a decline in economic growth, unemployment, and the spread of poverty, but temporarily increased the level of empathy and economic harmony in society, including expanding the activities of charities, cash and non-cash donations to the poor, not receiving rents, etc., which were more considered during COVID-19 pandemic. Although in the early days of the COVID-19 outbreak, religious and cultural centers, such as holy shrines, mosques, religious shrines, etc. were closed; the transition from materialistic thinking to spiritualist thinking, the transition from forgetting death and resurrection to near death and resurrection were some of COVID-19’s instructive lessons and a greater tendency toward spirituality.

The emergence of COVID-19 and the existence of many ambiguities about it have led to the publication of false and untrue content on virtual networks, etc. As a result, it has caused anxiety and endangered the mental health of the people. The present study’s findings are in line with other studies [5-10] on the various effects and consequences of this disease on people’s daily lives. It is necessary to consider the study of behavioral patterns for the post-COVID-19 period, and by assessing its various dimensions, predictions, and
special family, social, disciplinary, health, economic, educational protocols should be prepared by scientific elites and be executive.

The present study has some limitations. For example, because of the lack of comprehensive studies due to the novelty of COVID-19, there were not several resources to cite and strengthen the discussion and compare the results. Also, due to the qualitative approach, the present study's findings can be generalized to citizens living in Boroujerd, and to achieve the generalizability of the results to other cities should be done cautiously and by conducting more studies.

Conclusion
Apart from the partial positive consequences on the health-oriented and home-centered lifestyles of Boroujerd citizens, COVID-19 has also had detrimental consequences in personal, social, educational, and economic dimensions. Most interviewees in this study, because of their interpretation of the situation caused by the COVID-19 pandemic, considered it as a great threat and catastrophe for individual and social life, and they see their financial, psychological, and social security in danger.

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