

An Explanation of the Barriers and Facilitators of Perceived Social Support in Controlling the COVID-19 Disease: A Qualitative Study

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Research article

Keywords: Barriers and Facilitator, Social Support, COVID-19, Qualitative Study, Iran

Posted Date: February 16th, 2021

DOI: <https://doi.org/10.21203/rs.3.rs-234692/v1>

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Abstract

Background: Considering the irreparable impacts of the COVID-19 pandemic on the target population, the study aimed at explaining the barriers and facilitators of perceived social support in controlling the spread of the COVID-19 disease.

Methods: This study was performed qualitatively using the content analysis method. The population of this consisted of 37 Iranians active Instagram users. They participated in the research via calls. The researchers selected the samples purposively so that they could call the users on Instagram to participate after stating the objectives of the research. Purposeful sampling continued until the saturation point was reached. To collect data, a semi-structured interview was conducted with 12 participants via video calls, while 25 were interviewed personally. In doing so, the researchers re-interviewed 4 people personally to make them understand the issue more clearly. The interview process was repeated for some of the subjects. Finally, a total of 41 interviews were conducted with a duration between 17 and 48 minutes. Open and in-depth interviews were conducted to collect the data and analyzed it through the content analysis method.

Results: The researchers extracted 2 main categories related to the barriers and facilitators of perceived social support and 12 subcategories by analyzing the data. Barriers to perceived social support were categorized into 6 main categories; economic factors, familial factors, socio-cultural factors, individual and psychological factors, inefficient quarantine policies, weak management. The facilitators of social support were classified into 6 main categories; familial factors, individual factors, government's supportive policies, and improvement of occupational, social, spiritual, and emotional status.

Conclusion: The results indicated that a set of environmental and social factors could control the COVID-19 disease and play a deterring or facilitating role in the controlling process. Understanding these factors, as they were tailored with the social context and individuals' real-time experiences while being exposed to the outbreak, necessary measures can be effectively applied in designing training programs. The prevalence and spread of the disease can be controlled by strengthening the environmental factors and social facilitators and reducing the effect of deterring factors.

Background

The outbreak of the novel coronavirus SARS-CoV-2 (coronavirus disease 2019 or COVID-19, previously known as 2019-nCoV), whose original cases were first reported in Wuhan, Hubei, a province of the People's Republic of China, back in December 2019, has now spread to many countries. On January 30, 2020, the World Health Organization (WHO) declared the pandemic as a state of a global health emergency, based on the growing number of cases in China, other countries, and continents[1]. As a consequence, many countries decreed nationwide quarantine measures aimed at preventing the spread of the virus. The Iranian Government officially confirmed the attack of COVID-19 on February 18, 2020, and imposed suppression and lockdown in all the provinces of the county[2].

These painful features of the COVID-19 are associated with the high contagiousness and the subsequently increasing number of confirmed cases and deaths worldwide that generated negative emotions and thoughts in individuals, families, and entire communities, causing an obvious threat to the mental health of the world population[3, 4]. Based on the experience of past epidemics and pandemics, it is well-known that serious concerns may arise among healthy people, patients, and health care workers, such as the fear of death and pervasive feelings of anxiety, loneliness, sadness, and irritability[5, 6].

From a Durkheimian perspective, social integration is a central determinant of population health [7]. A large body of social research supports this general perspective, demonstrating that enmeshment in a network of supportive social relationships is critical for mental health [8, 9]. Notably, the key to a Durkheimian perspective is the negative consequences of rapid social change for mental health [10]. From this perspective, social turbulence weakens social bonding in a society [11], thereby creating conditions that deplete societal integration [12]. Similarly, expanding from a Durkheimian perspective, Abrutyn and Mueller argue that the periods of social disruption can threaten or cut meaningful social ties and create subsequent negative emotions[13].

The sum of these arguments suggests that social policies that create a large-scale alteration in the patterns of social interactions, and especially increased isolation, will result in greater psychological distress. Even if policies of social isolation were necessary to slow down the spread of the coronavirus, these policies were also likely to have substantial negative repercussions for mental health. Empirical studies support this argument, as research shows that feelings of social isolation are substantially associated with psychological distress [14]. Consequently, the increased isolation that was at the heart of the measures to prevent the spread of COVID-19 was likely to lead to a substantial degree of psychological distress.

The consequences of the COVID-19 pandemic and subsequent public health measures for subjective isolation and community distrust are likely to be circumscribed by a life course context. A key paradigmatic principle of a life course perspective is that historical events can affect people differently depending on the timing of these events in the life course [15]. The question of timing is especially relevant to the threat of the COVID-19 pandemic. The threat of serious adverse health consequences due to the contraction of the virus is greater in elderly people [16]. Consequently, older individuals may have faced isolation to a greater degree during the pandemic. Therefore, they may have experienced a greater distrust in the community due to their heightened vulnerability and subsequent fear of contracting the virus. The increased period of isolation and distrust would lead to a rise in psychological distress.

Fighting against the COVID-19, Wuhan health care professionals faced enormous pressures due to a high-risk of potential infection, inadequate personal protective measures, increased duty hours and self-isolation, subsequent frustration in dealing with patients who expressed high negative emotions, and lack of contact with family members. These were typical risk factors for developing mental problems [17] that would not only affect the well-being of physicians and other health professionals but also their ability to pay attention and make adequate clinical decisions[17].

While unexpected changes in daily life affected all people, individuals with an increased risk for serious illness from the COVID-19 were even more challenged by the current changes. Moreover, they might be facing more serious implications of quarantine strategies and social distancing than other population groups. Health for all and in all policies requires equity and includes strategies to achieve the best health outcomes and a sustainable healthcare system for everyone in our society [18].

Social support is one of the most active research areas in recent decades [19]. Social support refers to the interactive process where a person perceives or experiences that he/she is loved and valued, feeling himself/herself a participant in a social network of mutual assistance and obligations. Social support may include emotional, instrumental, informational, or appraisal support[20].

Perceived social support is one form of secondary appraisal and reflects the extent to which individuals believe they are loved and valued and can depend on others for support when they will any stressful or challenging situations [21]. Perceived social support can moderate the relationship between stressors and negative outcomes, where the relationship will be weaker in those with a high level of perceived support[21].

Rathus mentioned that that five groups of supportive behaviors including emotional attention (i.e., listening to people's problems and expressing emotions, empathy, caring, understanding, and encouragement), assistance (i.e., providing support leading to adaptive behaviors), information (i.e., providing guidance and advice to increase coping abilities among people), evaluation (i.e., providing feedback by others on the quality of performance leading to corrected performance) and sociability (i.e., receiving social support) could moderate and weaken the adverse psychological effects [22]. Social support refers to a notion where a despairing person enjoys empathy from people who are potentially able to help him/her by the times s/he is helpless and insolvent [23]. Its mental aspect can be of effective psychological help to the person to deal with stress; this is because such a person has this clear idea in his/her mind all the moments in life that there are people who can assist him/her when s/he feels helpless and despair, thus resisting miseries more strongly [21]. Perceived support refers to anticipating assistance by the time of urgency and is often forward-looking [19]. The most important effect of social support for a person faced with stress is that it helps improve health [24]. The existence of social support in people reduces heart disease, blood pressure, nervous headaches, digestive disorders, etc. It can also lead to increased self-confidence and self-esteem in people [13] and leave a positive and direct impact on the quality of life [3]. Moreover, it can result in mutual commitments in which the person feels loved, cared for, esteemed, and valued [21]. Social support also helps adapt and control job stress [6] and depression.

This study aimed to investigate the experiences of people in the community while dealing with coronavirus to recognize the process of receiving social support and its process. Therefore, the present study aimed to explain the barriers and facilitators of perceived social support in controlling the COVID-19 disease. It is hoped that the results would be used as appropriate strategies in dealing with the novel coronavirus disease and in the field of disease control.

Methods

This research was conducted qualitatively using the content analysis method. The study population consisted of Iranians who were active in the Instagram software (a social networking site) and participated in the research via calls. Inclusion criteria included being active on the social network of Instagram, willingness to participate in research, and providing one's experiences during the COVID-19 crisis. Participants were selected via purposive sampling so that the researchers could call the users on the social network of Instagram to participate in the research by stating the objectives of the study, and finally, a total of 89 people responded positively to participate. But, the researchers selected 37 participants for having maximum diversity in terms of demographic characteristics.

To gather data, a semi-structured interview was conducted in form of a video call with 12 people, while 25 people were interviewed personally. Then 4 participants were personally re-interviewed to further explain the issue. The interviews were repeated for some of the subjects and a total of 41 interviews were conducted with a duration between 17 and 48 minutes. In all interviews, the interviewer introduced him/herself before starting the process, and after explaining the objectives of the study, s/he provided the subjects with a consent form to read and to fill it. After the introductory speech and acknowledging the people for their participation in the research, the interview began. Interviews were conducted introducing some general issues on barriers to cope with the coronavirus disease and quarantine process. Then some questions were asked: "What do you think about the facilitators to social support during the Corona pandemic?, What are the barriers to perceived social support when someone is exposed to this disease? What support did the government and formal and informal institutions provide to you during the COVID-19 crisis? What was the most important protection you received during this period? etc.

Then some minor issues were also raised. All the conversations and interviews with the participants were recorded upon their consent. The interviews continued until the theoretical saturation was reached, which was eventually met by interviewing 37 participants. It should be mentioned that in qualitative studies, sampling continues until the data are saturated. Saturation occurs when no new code or concept is obtained. It denotes that extracting all levels of codes, there are no new concepts available to indicate new codes or expand the existing codes. In this connection, the researcher reaches the point where s/he feels the data are sufficient and ends the sampling.

Data analysis was performed using the MAXQDA10 software based on Granheim and Landman's five steps[25]. Immediately after ending the interviews, the recorded contents were transcribed word by word from the audio recorder. Preliminary analysis and coding of the data from each interview were performed before starting the next interview. After conducting each interview, the texts of the interview were entered into the software. Then the texts of the interview were read line by line with each part of the participant's speech related to the research question with assigning a code. At first, the codes were categorized based on similarities and differences, then codes and categories were compared, finally leading to the extraction of categories and subcategories.

To observe ethical considerations in all the interviews, the interviewer introduced him/herself, and after stating the goals of the study, the consent form was provided to the participants. All participants were assured that the information they would provide in the research would be made confidential. Then, the participants read the texts written in the forms and signed them. Concerning the interviews done via Video Calls, a softcopy of the consent form was sent to each individual. After reading and signing, they returned their forms to the researcher via WhatsApp and email.

Guba and Lincoln's criteria were used to increase the quality of the research. As people were in quarantine spending their furlough periods at home, the researchers engaged with the participants on a continuous and long-term basis to increase the validity of the study. Different methods (telephone, face-to-face, and video interviews) were employed to gather the data. The analyzed data were provided to some researchers who had expertise in qualitative research, and their suggestions for corrections and improvements were applied in this research. Moreover, the findings were provided to the participants to confirm the accuracy, and they approved the results.

Ethical considerations

The local ethics committees approved the study. The researchers informed the participants about the purpose and procedures of the study. They obtained oral and written informed consent following the Declaration of Helsinki (World Medical Association, 2013) with all applicable local regulations. According to the participant's will, the collected data were kept in the database for analysis. The participants had the access to their data on request. They had the right to correct them in case of any incorrect data was recorded. No risks were to be expected from participating in the study. However, if people felt bad about the interview and were looking for psychosocial support to deal with the current situation regarding the COVID-19 crisis, we would advise them to consult appropriate services, such as telephone counseling (Sorgentelefon) for people in crisis and difficult life situations. It is offered free of charge, confidentially, and professionally around the clock under the nationwide emergency hotline 4030.

Results

Sociodemographic profiles

A total of 37 people participated in this study; whose demographic characteristics are provided in Table 1. Also, after analyzing the data, 70 codes, 12 subcategories, and 2 main categories were extracted (Table 2), as mentioned below followed by quotations and explanations.

Table 1 Demographic information of the participants

Participant's No.	Age	Gender	Education	Financial position
1	31	Female	PhD	Very good
2	44	Female	M.A.	Good
3	33	Male	M.A.	Moderate
4	40	Female	Diploma	Good
5	36	Male	Junior school	Moderate
6	39	Male	M.A.	Very good
7	57	Male	Illiterate	Moderate
8	45	Male	Associate's	Weak
9	17	Female	Student	Good
10	39	Female	Diploma	Weak
11	29	Female	Student	Very good
12	32	Male	B.A.	Moderate
13	27	Female	B.A.	Good
14	39	Female	PhD	Very good
15	30	Female	B.A.	Moderate
16	32	Female	B.A.	Good
17	25	Male	B.A.	Good
18	29	Female	B.A.	Moderate
19	55	Female	Illiterate	Weak
20	33	Female	PhD	Very good
21	29	Female	M.A.	Very good
22	31	Male	B.A.	Weak
23	41	Male	Diploma	Moderate
24	63	Female	Diploma	Very good
25	25	Male	Associate's	Good
26	39	Male	Junior school	Very weak
27	51	Male	Diploma	Moderate
28	67	Male	Illiterate	Moderate

29	28	Male	PhD	Good
30	24	Female	B.A.	Good
31	21	Female	Associate's	Good
32	27	Female	PhD	Good
33	45	Male	B.A.	Moderate
34	40	Male	PhD	Moderate
35	47	Female	B.A.	Good
36	59	Male	Associate's	Good
37	48	Male	B.A.	Moderate

Table 2 Categories, Subcategories, and Codes

Categories	Subcategories	Codes
Barriers to perceived social support	Economic factors	Family's financial problems, the high price of disinfectant solutions, the higher price of masks, gloves, and detergents, no income during quarantine, the inability of low-income families to provide the subsistence of a month during quarantine, the inability of low-income families to pay utility bills, quarantine coinciding with the peak period when people sell things and (Holidays), rising unemployment rate, lack of smartphones in vulnerable groups for students' online classes
	Family factors	Increased domestic violence among family members, the need for unemployed people during the COVID-19 pandemic for support from family members, the need for suspicious and sick people during the COVID-19 pandemic for the support from family members
	Social and cultural factors	Social stigma, non-observance of social distancing and quarantine on people's behalf, people's distrust of each other
	Individual and psychological factors	No personal hygiene, peoples' inability to obtain up-to-date and reliable information, blood type, low physical health, individuals' low mental health, age, fear and anxiety due to illness, fear and anxiety of famine, death, loss of family members, lack of a goal in life, despair, depression
	Ineffective quarantine policies	Government's lack of support for the poor and low-income groups, non-observance of nationwide quarantine due to the outbreak of corona in China, non-imposition of quarantine in the main cities involved in the outbreak of COVID-19 in Iran, delay in informing the first cases of the infections
	Poor management	Weakness in managing religious places, weakness in producing and distributing disinfectants, no clear plan for the future, weakness in managing working hours and environments, failure to make decisions about the school year and the academic fate of students, unfinished school year, harms to educational levels
Facilitators to perceived social support	Family factors	Spending more time with family members, supporting family members
	Individual factors	Increasing the level of study, training skills, increasing personal care, more access to the Internet
	Government's supportive policies	Free internet package, quarantine, monitoring, and surveillance
	Improved job status	Promoting job position, improving the image of science and medical staff in the eyes of people, increasing the income based on online jobs
	Social	Sharing experiences and entertainment
	Spiritual-emotional	Praying, gratitude, popular aid

Barriers to perceived social support: With the outbreak of the coronavirus, Iran faced many problems with people receiving less social support. This category is made of sub-categories of economic factors, family factors, socio-cultural factors, individual and psychological factors, political factors, and managerial factors.

1. Economic factors: With the outbreak of the coronavirus in Iran, many businesses were shut down or remained semi-closed, and some private companies went bankrupt followed by a sharp decline in household incomes. Furthermore, many daily necessities health supplies saw a spike in prices. These issues mounted pressure on the Iranian families so that they faced many problems to make a living, such as providing necessary items for themselves, buying a mobile phone for their children for online classes, paying bills and loans. Here are some of the participants' remarks in this regard.

Subject 12: "In the quarantine period, my father lost his job as he was a self-employed man."

Subject 7: "In the very beginning, there was a shortage of alcohol and masks. Now they are available and too expensive to be bought."

Subject 16: "I have too little money to purchase some commodities. So, I don't come out of the home."

Subject 20: "The firm I was working in has just gone bust. Right now, I'm unemployed and not anticipating to return to work even after the coronavirus is gone."

Subject 23: "When we kept our shop closed, our revenues hit zero. How can we pay our bills?"

Subject 10: "What about the children struggling to find smartphones? Neither they can listen to the teacher nor we can send their assignment to the teacher."

2. Ineffective quarantine policies: Most of the participants stated that the government had not provided appropriate policies to prevent the virus. There were some weaknesses, such as failure to make the nation follow the quarantine properly, failure to impose a lockdown in the main cities struggling with the virus and making delays in informing the public about the infections. Here are some of the participants' remarks in this regard.

Subject 12: "The government should have imposed a lockdown in the main cities at first."

Subject 16: "I suppose they delayed in raising awareness about the coronavirus and its potential risks for the country."

Subject 34: "I think we would face fewer coronavirus related consequences if we were not under sanctions."

3. Weak management: A larger share of the participants criticized the way the government handled the situation. They stated that the government and its affiliated organizations failed to provide a coherent plan regarding the management of religious places, working environments, and people's access to

disinfectants, and the future of students' education. These factors caused anxiety among the people. Here are some of the participants' remarks in this regard.

Subject 10: "I wish they had a reasonable plan for our children not to get their education half-finished."

Subject 3: "Religious sites and mosques contributed to a rise in the number of infections as they held many gatherings."

Subject 30: "No one has a reasonable and coherent program to see what's going to be done next. There is no clear plan for the employees. One day they come with a plan to reduce an hour of working timeline, with tomorrow returning the situation as normal. One day they come to split the number of the staffs."

Subject 9: "What will happen to Konkoor (Nationwide examination for university)? We went halfway through."

Subject 11: "You know, online education does not match the quality of the classroom's education. Academic practical courses cannot be held online".

4. Individual and psychological factors: From the view of the participants, some individual characteristics such as old age and blood type can contribute to reducing perceived social support. Psychological traits such as fear and anxiety, lack of hygiene, inability to obtain up-to-date and reliable information were also deemed to rise the fear of the virus. Excessive fear and anxiety were also found to have led to despair and depression. Here are some of the participants' remarks in this regard.

Subject 30: "It occurs to me there are many people who don't know how to wash their hands. There are ones who do not wash their hands for twenty seconds, as they may not know this or don't have the mood for doing so."

Subject 37: "There are gossips everywhere, one is not sure to trust the TV news or Internet advice, they are conflicting."

Subject 27: "This virus was developed to get rid of every old person in the world as they are making overheads to the economies."

Subject 21: "The fact this issue is taking time is confusing me."

Subject 22: "I wish I could get back to work any time soon as I'm quite out of the mood."

5. Family factors: With the outbreak of the virus in Iran, many families struggled with numerous challenges. On the one hand, they had to experience a lot of economic pressure, and on the other hand, most of them were not accustomed to being together at home, resulting in tensions. Some participants were worried that their families would not be able to stand by them on difficult days. Here are some of the participants' remarks in this regard.

Subject 22: "We had a lot of quarrels at home during the quarantine period."

Subject 27: "The kids are all angry, and I also altercate with them too."

Subject 27: "I wish my families would understand how much pressure of being unemployed on men."

Subject 1: "My husband says, 'You are going to get sick and get things messed up.'

Subject 36: "If I get sick, I don't know if I will be able to help my family or not."

6. Socio-cultural factors: As the virus spread very easily, many people in the community were very tensed of being stigmatized and alone if they got infected. The burial process of the COVID-19 positive patients also caused many people to worry that they would have different ceremonies by the time of death and even after the ceremony. Some participants also stated that many people had not complied with the quarantine requirements. Here are some of the participants' remarks in this regard.

Subject 28: "If you have the symptoms of coronavirus, no one will come to you"

Subject 19: "I'm too much concerned to die of the virus, no one will take part in my funeral."

Subject 20: "The issue has not yet been taken seriously. People are buying things and moving freely on the streets."

Subject 34: "No one is to be trusted anymore. For me, all are patient unless the contradiction is proved."

Facilitators of perceived social support: With the outbreak of the coronavirus in Iran, many people had to change their lifestyles and spend more time together. At the same time, many people recalled facilitators increasingly affecting the lives of people in the community. This category includes the following sub-categories: family factors, individual factors, government's supportive policies, improving employment, and social status.

1. Family factors: The pandemic made people stay at home. As most of the businesses and all schools and universities were closed, family members spent more time together than ever and supported each other. On the one hand, people struggling with the disease or family members infected with it had the full emotional support from their families. Most families shared their experiences with each other, and parents also cooperated with their children in their homework during school holidays while spending more time with them. Here are some of the participants' remarks in this regard.

Subject 1: "Since the coronavirus came, my husband has been at home most of the time, normally we would see him rarely."

Subject 9: "My parents monitor us quite eagerly; I take Vitamin C pills and sometimes carrot syrup."

Subject 10: "My mom always thinks she will die if she gets infected with the virus, God forbids. We sympathize with her most of the time and speak to her to lessen her anxieties."

Subject 21: "Each day afternoon, at 6 p.m. I make a video call with my mom and two of my sisters to have some relief. It is as though we sit by each other. That's very fun."

Subject 16: "I learned cooking from my mom in this challenging period."

Subject 14: "Now my job has become shift-based and schools are shut. So, I have more time to get around with my children."

Subject 21: "Parents have somehow become their children's teachers and work with them to get their homework done."

Subject 13: "It feels great when you see the husband is constantly concerned about his wife's health; e.g., buying masks, disinfectants, etc."

Subject 1: "Before the pandemic, my husband rarely washed the dishes; now the situation is different and upon returning home, I see him disinfecting the dishes."

2. Individual factors: For the participants, some individual behaviors helped to relieve the fear of the virus. Some people learned new skills, and some spent more time studying and got things done as they had more free time. On the other hand, some people were noticed spending a lot of time on the internet. In some cases, some participants said that they allotted time for improving their health and increasing their care. Here are some of the participants' remarks in this regard.

Subject 3: "I had more time for studying during the quarantine period. I'm happy about this."

Subject 18: "I tried a couple of recipes in a month-long quarantine period. It is now the time to cook some donuts by myself."

Subject 16: "As I had plenty of free time, I took care of my skin more than ever."

Subject 13: "I have a lot of work to do after the pandemic. I have written a long list of things. I'm going to do after the crisis, e.g., tailoring. I need to go and learn it."

Subject 31: "We did not wash our hands well. Now, we know all things. I have learned numerous new things about health and hygiene."

3. Government's supportive policies: The government decided to provide free internet packages to families following coronavirus prevention and the need for individuals to comply with quarantine. It is thought that the government's actions to enforce lockdown as well as establish other preventive measures were good initiatives. Here are some of the participants' remarks in this regard.

Subject 18: "The free internet given to people was a good idea as it entertained people at home."

Subject 6: "Though cities were locked down lately, it was better than nothing."

Subject 14: "Social distancing was a good idea, hoping it would continue."

Subject 31: "It was an interesting idea that we had our body temperature gaged. I also saw cars being sprayed by disinfectants at the entrance of the cities."

4. Improving the job situation: Some participants, especially the medical staff, i.e., doctors and nurses stated that their employment status had become better in such a way that led to an improved employment status after the government had promised to change the status. Therefore, they got more stability in their professions. Here are some of the participants' remarks in this regard.

Subject 18: "The government has promised to employ the nurses working in COVID-19 wards. That's a very good idea. I am a member of the hospital management team. Our prestige has improved. I think coronavirus caused people to change their views for the medical staff."

Subject 6: "We are waiting to get the vaccine and drugs. All eyes are on the scientists to see what they have for us."

5. Social aspect: The features of the coronavirus disease helped many people in the community to share their experiences with others. Some participants also mentioned that people shared various hobbies in cyberspace during the pandemic, i.e., they created challenges and games for fun. Here are some of the participants' remarks in this regard.

Subject 4: "All are posting training on various websites and online pages, ranging from recipe training, such as making of donuts to home-made yogurt."

Subject 1: "We demand everyone introduce whatever book s/he has read online or share it for the rest."

Subject 17: "Every time I open Instagram, a new challenge is on, such as a laughing challenge. We are busy working with this stuff."

6. Spiritual-emotional: According to the participants, the coronavirus crisis made many people more engaged in spiritual affairs. Some recalled that they had paid more attention to spirituality and prayer than ever before, and some participants noted their gratitude for the health care staff. During this period, many people stepped up to help others by providing aids to their compatriots. Thus, low-income and vulnerable groups were helped in this pandemic. Here are some of the participants' remarks in this regard.

Subject 19: "I think I prayed most in this period than ever before."

Subject 10: "May God helps us all."

Subject 36: "I have committed myself to pay alms though none of my family members were infected with the coronavirus."

Subject 24: "We collected many aids for the poor people in deprived areas, i.e., both edibles and disinfectants."

Subject 32: "Now people acknowledge the medical staff for the first time. Before, they were complaining of them."

Subject 18: "We are somehow inculcated in the peoples' minds, and this helps remove the fatigue we are having. People and my relatives were quite encouraging at this time. They were constantly concerned about us and colleagues."

Subject 19: "When we were said that a country had developed the drug for the coronavirus, it felt great, and I prayed to God."

Discussion

This study aimed at explaining the barriers and facilitators of perceived social support in the wake of the COVID-19 in Iran. The results demonstrated two main issues: 1. Barriers to perceived social support including such sub-categories of economic factors, family factors, socio-cultural factors, individual and psychological factors, ineffective quarantine policies and weak management, and 2. Facilitators of perceived social support including such sub-categories of family factors, individual factors, government's supportive policies, job promotion, social and spiritual factors.

One of the main barriers to perceived social support was economic problems. On the one hand, people had faced difficulties in maintaining their livelihoods, and on the other hand, getting health equipment that was needed to prevent coronavirus had made things tricky for the public. These findings were found to correspond with those of Salahshoori et al. [26], Amber Akbari et al. [27], Barua [28], Van Bavel et al. [29], Gentilini et al. [30]. Iran has been struggling with many economic problems in recent years, and the closure of businesses aggravated the situation, causing numerous problems for people to meet their needs. Also, the price of hygienic appliances was too expensive for people to afford.

The country is generating lower revenues and having vulnerabilities in the economic sector. Therefore, the citizens require more social protection as they have lack social development support systems, and limited social insurance, financial constraints, poverty, and more vulnerability indicators [30]. Social support/protection systems need to be developed in response to the COVID-19 crisis to protect life and livelihoods of people. This system guarantees continuous access to the food supply [30, 31]. Many of the world's poor people rely on public space and mobility for providing for their livelihoods, including seasonal farming and traveling to markets to sell or buy products. While required restrictions are imposed on people's mobility, suddenly many people lose their livelihood. A majority of the poor people are not under health insurance coverage or do not enjoy unemployment benefits. Thus, they are likely to face food and nutrition insecurity [30].

Family factors were thought to be another barrier to perceived social support. Quarantine and the presence of all family members together for a long time led to domestic violence, especially against women. The rise in domestic violence among family members, the need for unemployed people during the COVID-19 pandemic for supports from family members, and the need for suspicious and sick people during the pandemic for getting support from family members substantiated this claim [32]. A United States-based study found that increasing health inequalities against mothers increased the prevalence of unhealthy behaviors and physical and mental health problems, while changes in labor market conditions affected domestic conflict, domestic violence, and child abuse [33].

Social and cultural factors were seen as barriers to perceived social support. The fear of infection, the way people deal with the infected person, and the possibility of being excluded from society were seen as the causal factors for increasing the distrust in people against each other. Social stigma, non-compliance with social distancing and quarantine orders, and people's distrust in each other were among the issues that were expressed by the people who proved this claim. In some cases, there were recovered people who were not supported by family and friends. In addition, they were forced to follow the quarantine and isolation rules, which led to a decline in self-confidence, causing psychological problems [34].

Another barrier to social support was individual and psychological factors. Individuals used to constantly evaluate themselves in the wake of the disease, resulting in negative and sometimes positive effects of social support from self-evaluation. This finding was consistent with the social support of the evaluation type [23].

In this connection, social media are the key disseminator of COVID-19 information. They can quickly publish important information so that people can take appropriate measures to protect themselves. However, rumors, misinformation, and fear can also easily spread through social media, waging more anxiety [35, 36].

Ineffective quarantine policies, government's failure to provide support for the poor and low-income groups, failure to impose an effective lockdown in the country, failure to implement fruitful quarantine measures in major cities struggling with the virus, late and unreliable information about the first cases of infection were deemed others barriers to social protection [23]. Increasing popular knowledge of state measures to deal with the dissemination of rumors, the voluntary imposition of restrictions to increase public awareness on the recovery process can reduce anxiety in the community [35].

Weak management was characterized with such concepts, including poor monitoring of religious places, weak production, and distribution of disinfectants, failure to provide a clear plan for the future, poor management of working hours and environments, failure to make a clear decision on the school year and the academic issues of students, incomplete academic year, academic and harm to students. These factors were deemed as barriers to perceived social support[37]. For example, the closure of the universities and initiate online education brought challenges both for some teachers and students to cope with it as there were poor online education facilities in the country. Even after arranging the necessary facilities, the instructors were not sure about the learners whether they could meet their expectations,

especially concerning practical courses. Contrariwise, there were many concerns among teachers as there were chances of cheating in examinations. In addition, students were failing to access web-based classes, which was a barrier itself [38].

Another major category of facilitators of social support was the fact that it made it easier to get along with the situation. One of the facilitators of perceived social support found in this study was family factors. During the quarantine period, people used to recall important health and care points about the possibility of getting sick and vulnerable to other members. They would also propose treatment and care to their elderly parents. Even people were feeling responsible for leaving the house to do the necessary work as they followed all health instructions [39].

Individual factors were characterized with subcategories such as increased study hours, training skills, increased personal care, more access to the internet as they were deemed facilitators of social support. Increased personal care at the emerging time of the COVID-19 pandemic was one of the outcomes of the crisis, as this held for people with certain illnesses and for those who had to follow health protocols to prevent the spread of the disease. Even the internet was suggested to be used to get the latest news and methods of prevention and even treatment for some underlying diseases in this period; this is when Iran is said to be ready to accept the internet and electronic services as it experiences numerous natural disasters such as floods, quakes, etc. [40].

Another facilitator of social support was the government's supportive policies of providing free internet packages along with initiating quarantine measures, monitoring, and surveillance of the infected areas. The benefits of providing free internet packages include improving people's ability to collect protective information and promoting the community's competencies in launching online businesses as well as training in the virtual and real-time environment (Instrumental social support). Various governments sought to develop and implement policies to protect people during the COVID-19 pandemic[41]. For example, China, as the origin of the outbreak across the world, managed to detect diseases in public places, even at homes, and to quarantine infected areas, and to impose traffic restrictions for millions of residents in order to control the spread of the virus. The mobilization of all government amenities and hospitals, the extension of the Chinese New Year Holiday period, traffic control, cancellation of all communities, and promotion of public health training were the most significant measures taken by the Chinese government to effectively deal with the virus. South Korea only warned about important health issues as they had not perceived the seriousness of the disease, but since mid-February, they put in place intense quarantine measures for some cities as well as the northern Gyeongsang province. Closing down of higher education centers and schools for long periods, restricting public gatherings, quarantining the places where the virus had spread rapidly, identifying infected people and raising awareness on how they moved about using electronic maps, maintaining the quarantine standards, allocating adequate funds to deal with the virus as well as increasing public knowledge were among the measures that the Korean government took. The actions taken by the Hong Kong government included imposing strict regulations and heavy fines for people not complying with the measures, setting aside subsidies to make up for

business closures, providing low-interest loans, distributing free masks and health supplies to the poor[41].

Japan, since it has a vulnerable elderly population, managed to keep mortality rates low. They adopted the measures of promoting distance-working, delegating decision-making to local governments, shutting down the schools and universities for a long time, granting subsidies to workers and employees to stay home for childcare, prohibiting gatherings and public places, and increasing the capacity to perform diagnostic tests to deal with the novel coronavirus. In Iran, the ineffective use of information technology capacity to manage public opinion and lack of a forward-looking view of health led to fear and emotional distress in the society as it held a high rate of mortality in addition to the challenges brought by sanctions. Actions by the Iranian government included specifying the infected areas with red and less infected areas with orange colors, imposing some traffic restrictions and screening at passenger transfer stations, entry and exit points of cities, introducing active and standard patient-search, etc. [42].

Improving the job situation with such themes as promoting the job position, improving the prestige of science and medical staff in the view of people, and increasing online jobs were among other facilitators of social support. By the time of the pandemic, cyberspace was used not only for receiving news, but also for many stores to sell their products virtually, and it also had a very significant effect on reducing traffic [43].

Social factors such as sharing experiences and entertainment were among other facilitators of perceived social support including sharing people's experiences in the making of home masks and maintaining social distance. According to the World Health Organization's research, social distancing is significant in preventing the spread of the virus. Moreover, animations that were designed to explain the importance of social distancing turned out to be useful online content. It could provide some help for the educational centers and increase public awareness [44, 45].

Performing spiritual and emotional activities such as praying, expressing gratitude, and providing public assistance were among other facilitators of social support. One of the things that could help people stay together in the wake of the pandemic was to maintain spiritual affairs and perform obligatory religious acts. In this connection, Muslims can pray and perform religious rituals to ask God to heal the suffering and the patients. It will contribute to the support of the people as a whole[46].

Social supporting functions in social networks vary as they may directly affect individuals' health, determining the type of health behavior, disease behavior, and preventive behavior to deal with this disease. One of these functions is social capital, i.e., what resources in the Iranian society can be effective for people at risk, and the sick, and even those recovering. One of these sources was the reliable information sources mentioned by the participants. Other sources include financial services and medical resources. Moreover, one can refer to social criticism (social undermining), which is a kind of criticism of the government's actions in order to achieve the best health service. Other functions of social networks refer to social companionships, such as sharing knowledge and skills, and entertaining others, and sharing experiences with others in virtual and real-time environments. The last function of these social

networks is the social support used by individuals to exchange material, spiritual and emotional help and to contribute resources and experiences in interpersonal relationships to prevent and even improve the condition of the COVID-19 crisis that is disturbing the physical, mental, psychological and social health of individuals directly and indirectly.

Conclusion

The COVID-19 pandemic resulted in substantial changes in patterns of social interactions, as governments enacted social distancing and other safety measures intending to slow down the spread of the virus. From a Durkheimian perspective, large-scale social change may disrupt social connections, resulting in a loss of social integration and commensurate harm to public health. The loss of social integration is especially likely to be experienced in the wake of the COVID-19 pandemic because individuals were expected to minimize in-person interactions and social gatherings.

Abbreviations

EB: Explanation of the Barriers;

PSP: Perceived Social Support;

CD: COVID-19 Disease;

QS: Qualitative study

Declarations

Ethics approval and consent to participate

The study was approved by the Research Ethics Committee of Hormozgan University of Medical Sciences (Code: IR.HUMS.REC.1399.012). Written informed consent was obtained from group members. In addition, written consent was obtained from the parents of the participants who were under 18 years of age. All the procedures performed in the study involving human participants were based on the ethical standards of the Institutional Research Committee and the Helsinki Declaration and its later amendments or comparable ethical standards.

Consent to publish

All participants consented verbally to publication of the interview data.

Availability of data and materials

The datasets using in the study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

Funding

This study was drawn from a research project sponsored by deputy of research and technology of HUMS. The cost of the payment is spent on the design and implementation of the study.

Authors' Contributions

All authors participated and approved the study design. RT and AZ contributed to design the study, VR and NN collected the data, and analyzed by AZ, JYL and TA. The final report and article were written by RT, LH, NM and AZ and All authors read and approved the final manuscript.

Acknowledgments

The authors would like to thank all the participants who patiently participated.

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