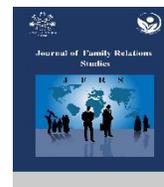




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Research Paper

How The Covid-19 pandemic changed the quality of Iranian families' interaction? A Grounded Theory Approach



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ABSTRACT

Objective: Covid-19 outbreak changed human being interactions in all of the world, and family as smallest social unit of society had experiences in new situation. Accordingly, the present study aimed to explore the How the Covid-19 pandemic changed the quality of Iranian families' interaction?

Methods: This study examined the quality of family interactions during the COVID-19 epidemic using a qualitative grounded theory approach. The research population was families living in Tehran. The participants were 25 persons including 7 couples and 11 young adults who were selected using purposive sampling in 2021 in Tehran. The data were collected through semi-structured interviews with the participants. The collected data were analyzed based on Strauss and Corbin's approach.

Results: The results revealed that COVID-19 affected 5 Axial coding including; "Family interaction challenges", "Changes in the quality of family interactions", "Concerns about the occurrence of physical and mental problems for family members", "the impact of changing working hours" and "economic problems on family interactions", and the consequences of reconstructing family interactions leading to weak family ties. The COVID-19 pandemic also had consequences such as economic problems, exacerbation of external stresses such as unemployment, disregard for family relationships, and exacerbation of work-family conflict.

Conclusion: This study also showed that families rebuild family interactions by turning challenges into opportunities, redefining communication boundaries, rebuilding family interactions, and redefining family roles and functions.

1. Introduction

A family consists of a couple and one or more children whose members' relationships are formed within the framework of the marital system (marital relations), mutual relations between parents and children (inter-generation relations), and the sibling system so that individuals can meet each other's needs (Minuchin et

al., 2006). The family is the first unique social institution and the health and success of society depend on the health and satisfaction of its members because any kind of interpersonal relationship is affected by marital relationships (Goldenberg & Goldenberg, 2013).

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Theorists have long recognized the importance of home/family as a physical environment that not only shapes individual behavior and development (Bronfenbrenner & Crouter, 1983) but also as an environment in which family interactions take place. One of the factors affecting family and members' relationships is social conditions and the environment outside the home. For example, the occurrence of crises such as war and natural disasters, illness, and family conditions affect individuals. The World Health Organization (WHO) declared COVID-19 an epidemic in March 2020, and the epidemic has since led to rapid and widespread changes in daily life (Carey, 2020). The family environment is one of the areas most affected. The COVID-19 crisis has had a profound effect on families as many have struggled with health threats and difficult family situations such as domestic and domestic violence (Fernández-Felipe et al., 2022). The effect size of the COVID-19 epidemic on family health is currently unknown. However, one-third of families have reported high COVID-19-related anxiety caused by quarantine-induced family stress (Khodabakhshi-Koolae, 2020). Thus, physicians working with children and families need to understand the implications of COVID-19 for families (Prime, Wade, & Browne, 2020) including school closures, sudden transitions to distance learning for children, and teleworking. The psychological effects on parents and children associated with COVID-19-related difficulties have been documented in emerging research (Daks, Peltz, & Rogge, 2020). There is also strong international evidence that domestic and family violence increase during periods of lockdowns and quarantine (Boxall, Morgan, & Brown, 2020; Piquero, et al., 2021). Additionally, child abuse has also been shown to increase with disasters and the pandemic seems no different (Kovler, et al., 2021). As such it is important to understand family functioning also with the broader context of human rights especially as it relates to increases in violence against women and children.

It is essential to better understand how families perceive and respond to a wide range of effects of the epidemic. Despite the persistent response of the psychological community, there is a need to better understand the destructive mechanism of the epidemic related to the performance of children and families, as well as the longitudinal patterns of parents in all aspects of development. (Prime, Wade, & Browne, 2020). Furthermore, differential patterns for all families (inter-family effects), versus individual (intra-family effects) have not been analyzed. (D'onofrio et al., 2013). This limits us in the path of etiology to the child's

psychological pathology. This is why we do not know how the individual (sibling) and family differences moderate the epidemic stress (Browne et al., 2021).

During the COVID-19 pandemic, many excessive and unusual restrictions have been implemented in states and communities as a way to prevent the spread of the virus. Social distancing and quarantine regulations disrupted daily life as individuals and families were forced to withdraw from important social institutions such as school and work (Zhang et al., 2020). As of June 2020, it was estimated that more than 1.18 billion students worldwide - or 68% of all learners - were affected by forced school closures (UNESCO, 2020). In addition, those employed in essential occupations were forced to work outside the home without access to institutions such as schools and childcare centers. In summary, the pandemic outcomes significantly disrupted daily family life (Browne et al., 2021; Chung et al. 2023). Despite recent findings, the impact of the prevalence of social adjustments on daily family life and family relationships remains largely unknown. (Prime et al. 2020). The family is the most important institution that can play a vital role in training and raising a person and also in the formation of personality structure. It is a system that exerts the first effects on a person's life and determines the degree of his/her adaptation to the social environment (Tourkam, Keyziltas, Bic, & Yemenisi, 2005). The COVID-19 outbreak has led to changes in the daily and normal life of families and has particularly affected the lifestyle of families (Chen et al., 2020). Moreover, the pressure on young people during pandemic can create tensions in family life and challenges for parents (Chu, et. al., 2021; O'Leary & Tsui, 2022).

Khodabakhshi-Koolae and Aghaei (2020) explored the experiences of Iranian mothers in caring for their children during the COVID-19 outbreak and extracted four main themes from the collected data: The mother's health and physical concerns, confusion in playing the motherhood role, concerns about educational quality and wasting learning opportunities, and concerns about the impact of financial disputes on children (Khodabakhshi-Koolae & Aghaei, 2020).

About two years after the COVID-19 outbreak and the lifestyle change to quarantine, no study has addressed the effects of the epidemic on family interactions. Thus, there is a research gap in this area. To this end, this line of research was motivated to address and bridge this gap. Therefore, this study aimed to examine the quality of family interactions during the COVID-19 pandemic. It also seeks to highlight the changes that have taken place in the quality of family interactions. One of the contributions of this study is to improve the quality of

family members' interactions and the lifestyle changes during the COVID-19 epidemic. It also examines marital relationships, sibling relationships, and child-parent relationships. With the enforcement of lockdown and quarantine regulations, the consequent restrictions in working hours, and the closure of schools and educational centers, family members spend more time together. Thus, their interaction patterns are more likely to change. This study can have some implications for increasing knowledge and awareness of parents, families, psychologists, and family counselors about the consequences of COVID-19 and its possible impacts on families. The findings of the study also help them identify and mitigate the factors that have changed the situation. Furthermore, this study is significant as it addresses the components that play an important role in everyone's daily life. Given the COVID-19 outbreak, its long prevalence, and the impact it has on all aspects of people's lives, extensive studies are required to explore the consequences of the disease on people's daily life and interactions. Accordingly, the failure to address these consequences can negatively affect various emotional, family, social, educational, and professional aspects of people's life. Thus, family counselors and policymakers, cultural and social planners, and consequently families and individuals are the main beneficiaries of the findings of the present study.

2. Materials and Methods

Study Design

The present study was conducted using a qualitative grounded theory approach. Researchers usually turn to this approach when the subject matter has been neglected or superficially addressed in previous studies. Given that the grounded theory approach is used to explore an unfamiliar phenomenon or to describe and depict an under-researched process and area where the relationships between variables are unclear (Evans, 2013). Since COVID-19 is an emerging phenomenon, few studies have addressed the nature and quality of family interactions during this period. Thus, this study aimed to explore the nature and quality of family interactions during the COVID-19 epidemic. Thus, the grounded-theory approach can be a suitable technique to study the nature and quality of family interactions, communication challenges between members, effects, and consequences on interactions, as well as strategies used by family members to cope with communication challenges. Experience is a purely objective and experimental phenomenon and needs to be interpreted.

Grounded theory or theory derived from data is an inductive research method with a completely qualitative approach and an exploratory research method. Accordingly, the present study does not try to test predetermined theories and assumptions but tried to reach a theoretical understanding of the phenomenon in question after interviewing the intended people and analyzing the data.

Participants

Since this study was conducted during the COVID-19 epidemic conditions and the involvement of many families with this disease, the research population included all family members (wife, husband, children) living in Tehran in 2021. Married people must have been married for 5 years or more and have one or more children. The number of participants was 25 persons including 7 couples and 11 young adults that living with their parents. Given the COVID-19 outbreak and the requirement for compliance with health protocols, it was not possible to interview all family members, and in some families, couples were interviewed, and in some, only children were interviewed. In the present study, the data were saturated after interviewing 23 persons and the patterns and themes in the data were repeated. The last two interviews were conducted to increase the validity of the data and the reliability of the findings.

Data Collection

The data in this study were collected through semi-structured interviews. To this end, some of the main questions were developed in advance in collaboration with the supervisor and the advisor, and other questions were asked based on the responses provided by the participants during the interviews. The questions aimed to elicit in-depth and rich data on the quality of the participants' family interactions during the COVID-19 epidemic and how they dealt with these events. Examples of the key questions asked in the interviews were as follows:

1. How COVID-19 has affected your life?
2. How do you think about the cause of these effects?
3. How was your relationship with your family members during the COVID-19 pandemic?
4. What strategies have been adopted by you to have a better life during the COVID-19 pandemic?

Each interview started with general questions and proceeded with more detailed questions to collect rich data about the research problem. Furthermore, the participants were asked to give more accurate and detailed answers to the questions in line with the objectives of the study. The duration of each interview varied from 30 to 45 minutes depending on the

participants' responses, their interests, and the time given to the researcher. Since the questions were asked in the form of semi-structured interviews, other questions were developed and asked based on the interviewees' responses. The interviews were conducted in person and some were conducted by telephone, video calls, and chat due to the restrictions imposed by the COVID-19 pandemic. All the 25 interviews were conducted by the female second researcher (N.H.M.). The interviews were conducted for three months, and thus the research had sufficient time to select the participants more carefully. After the completion of the interviews, their content was transcribed word by word and the data were saturated after comparing the information obtained from the interviews.

Procedure

First, the researcher developed open-ended and general questions in line with the objectives of the study and revised the questions based on the feedback from the experts in the field. Then, the participants were selected using purposeful sampling. To this end, the requirements for attending the interviews were posted on online media and networks or shared with friends and colleagues. Afterward, volunteer people meeting the requirements were selected and interviewed. As this study was conducted during the COVID-19 epidemic, the interviews were mostly conducted online via telephone, online video calls, or chat. Thus, only five participants were interviewed in face to face way. The participants' statements were recorded and saved with their permission. During the interviews, the researcher first tried to establish rapport with the participants and ensured them that their information would be kept confidential. Then, the content of each interview was transcribed word by word. Furthermore, all the non-verbal expressions, tones, and feelings of the participants were taken into account. Finally, the collected data were coded and analyzed using Strauss and Corbin's (2014) theory.

Data analysis

The data collected from the interviews were analyzed based on a grounded theory approach and using Strauss and Corbin's (2015) theory in three steps; open coding, axial coding, and selective coding. Finally, each new set of data collected was compared with other data to find out their differences and similarities (Strauss & Corbin, 2015).

Open coding is an analytical process through which themes and associated statements are identified and their features and scope are discovered. In this step, first, the intended phenomenon is named and similar

themes are placed in a single category to reduce the number of themes. At the end of this step, the features and aspects of each category are determined (Strauss & Corbin, 2015). In this study, after reading the transcript of each interview, its significant statements were extracted and recorded as codes. The generated codes were then categorized based on their commonalities and similarities. The components of each category were as compatible with each other as possible but different from the constituent elements of the other categories.

In axial coding, the data were put together and the relationships between the categories and subcategories were determined based on the nature of categories, the relationship between them, the specified features and their dimensions, interactions, and consequences associated with the phenomenon under study. This step aimed to discover a paradigm to help identify the relationships between categories, extract the core phenomenon, and search for underlying, causal, and intervening factors affecting the phenomenon. In axial coding, the identified open themes were clustered into more specific themes. Besides, the main components in the dataset were identified and the next coding step was performed around these components.

In selective coding, the core category was identified and systematically linked to the other categories for establishing the relationships. Furthermore, some categories were further developed if needed, as shown in Figure 1. The data were analyzed using MAXQDA software (version 10). Finally, 115 statements were analyzed, and 33 open codes, 5 axial codes, and one core code were extracted.

Rigor

Four supporting processes of trustworthiness based on Guba and Lincoln (1994) were applied in the present research. They were credibility, dependability, confirmability, and transferability. For Credibility of the research procedure and validation the findings in all stages of data analysis, any ambiguity in interpreting the data was resolving by referring to the participants (member Check) and asking their opinions for further clarification. For peer check, the opinions of 3 faculty members (2 Psychologist, and 1 Social worker) who were not directly involved in the research process but were familiar with the research topic and qualitative approaches, utilized. To ensure the dependability of the data, the coding and analysis procedures were controlled by peer debriefing. To ensure the transferability of the findings, the contexts of the research was well described and the decisions made in the research process were recorded so that others could use the findings of the research in similar

situations. Finally, to ensure the confirmability of the finding, the researchers used the statistics skills of expert team. All raw data, analysis, notes, processes performed were presented to the them and their approval was received.

3. Results

As can be seen in Table 1, the participants in this study were 25 men and women who were aged 18 to 55. The participants' education varied from diploma to master's degree. Other demographic data are shown in Table 1:

Table 1. The participants' demographic data

Participant code	Age	Gender	Education	Occupation	Marital status	Number of children
1	26	Female	Bachelor's degree	Accountant	Single	----
2	26	Female	Master's degree	Employee	Single	----
3	20	Female	University student	Housewife	Married	1
4	31	Female	University student	Housewife	Married	1
5	55	Female	Not specified	Housewife	Married	2
6	36	Female	Bachelor's degree	Housewife	Single	---
7	28	Female	Bachelor's degree	Employee	Married	1
8	27	Female	Diploma	Housewife	Single	---
9	48	Female	Bachelor's degree	Tutor	Married	2
10	48	Male	Bachelor's degree	School principal	Married	1
11	25	Female	BA student	Housewife	Single	---
12	38	Female	Diploma	Housewife	Married	2
13	25	Female	BA student	Housewife	Married	1
14	26	Female	Diploma	Housewife	Single	----
15	32	Male	Diploma	Self-employed	Married	1
16	25	Female	BA student	Housewife	Single	----
17	20	Male	Bachelor's degree	Self-employed	Married	2
18	25	Female	Bachelor's degree	Teacher	Married	2
19	38	Female	Bachelor's degree	Employee	Married	1
20	35	Female	Diploma	Housewife	Married	1
21	36	Male	Diploma	Self-employed	Married	1
22	18	Female	High school	Student	Single	----
23	36	Male	Diploma	Self-employed	Married	2
24	26	Male	Diploma	Self-employed	Married	1
25	27	Male	Diploma	Self-employed	Married	2

Table 2. Open coding, axial coding, and selective coding of the data from the interviews

Open coding	Axial coding	Selective coding
Disruption of family ties Decreased intimacy in family relationships Increased fights, conflicts, and quarrels in the family Spending too much time on children's education Changes in family ceremonies and rituals Increased consumption of cultured materials including written, audiovisual, and online products	Family interaction challenges	Changing, redefining, and reconstructing family interactions after the COVID-19 outbreak
Increased marital conflicts Increased aggressive behaviors in family members Cold marital relationships The feeling of intense control over social relations by the spouse Feelings of depression and inattention to family relationships Permanent disputes over the quality of children's participation in online courses	Changes in the quality of family interactions	
Concern about other family members getting the COVID-19 disease The feeling of tiredness and confusion in family members Feelings of fear and insecurity following warnings from the media Increased obsessive behaviors Child-parent disagreement on the observance of health protocols Experience of death and loss in the family Conflict in the whole family	Concerns about the occurrence of physical and mental problems for family members	

Marital conflicts due to changes in working hours and schedules	
The impact of external stressors such as unemployment on family relationships	The impact of changing working hours and economic problems on family interactions
Living with complicated economic problems and low household income	
The family's restricted access to electronic devices due to financial problems and thus sharing a device	
Intensification of work-family conflict	
Teleworking and a new opportunity to rebuild family interactions	
Turning challenges into opportunities and engaging educational and artistic activities	
Redefining functions and roles of family members	The consequences of reconstructing family interactions
Redefining the communication boundaries between family members	
Involving children more frequently in household chores	
Improving the quality of sexual relations	
Developing creative ideas and leisure activities	
Child aggression	

The strategies adopted by the participants to cope with new epidemic conditions were teleworking and taking a new opportunity to rebuild family interactions, turning challenges into opportunities and engaging educational and artistic activities, redefining functions and roles of family members, redefining the communication boundaries between family members, involving children more frequently in household chores, and improving the quality of sexual relations (Figure 1).

Interactive challenges

The themes related to interactive challenges identified through open coding were disruption of family ties, decreased intimacy in family relationships, increased fights, conflicts, and quarrels in the family, spending too much time on children's education, changes in family ceremonies and rituals, and increased consumption of cultured materials including written, audiovisual, and online products. A majority of the participants highlighted cold family relationships, disruption of family ties, and severing ties with family members and relatives as major interactive challenges during the COVID-19 pandemic. For example, one of the participants stated, "Family ties have diminished and almost severed these days" (Participant #1). Some participants complained about decreased intimacy among family members during the pandemic. For example, one participant said, "Because my grandmother has a weak immune system, we did not even dare to visit her in the beginning, and we lost contact altogether and canceled family gatherings during the New Year holidays" (Participant #2). Staying at home and excessive contact between family members fueled sibling conflicts. For example, an interviewer said, "Even my sister and I argued about who did the most work and whose turn was to do the cleaning" (Participant #2). Changing learning and educational technique to e-learning and online

education has caused many problems for mothers. For example, one of the participants stated, "I'm at home always doing housework and taking care of my son's school assignments and struggling with COVID-19" (Participant #3). The epidemic and consequent closures caused many problems in holding family ceremonies: "I have been engaged for 3 years now, but we have not held our wedding ceremony and have not started our marital life, and I am very upset about this because my wife and her family insist that we have to hold a wedding ceremony" (Participant #21). Home quarantine and lockdowns have led to an increase in the use of cultural products, including written, visual, audio, and virtual materials and products by families: "Reading books, especially psychology books, is very helpful. When we felt that we were missing our family members who were not living with us, we made video calls to my daughter or relatives, which both relieved our sadness and entertained us" (Participant #5).

Changes in the quality of family interactions

The changes in the quality of family interactions during the COVID-19 pandemic included increased marital conflicts, increased aggressive behaviors in family members, cold marital relationships, feeling of intense control over social relations by the spouse, feelings of depression and inattention to family relationships, and permanent disputes over the quality of children's participation in online courses. Living with the consequences of the COVID-19 epidemic fueled interpersonal conflict between spouses. As a case in point, one participant stated, "For example, sometimes my husband tells me that I do nothing at home and housekeeping is very easy. This leads to arguments and I get angry may react to it strongly, thus fueling our arguments" (Participant #3). Following the onset of COVID-19, aggressive and violent behaviors increased due to close contact among individuals and excessive psychological

distress: *“My daughter sometimes gets angry and mad because she has to stay at home, but then she quickly regrets it. Her father and I think that she has to get angry because she needs to have fun”* (Participant #5). After the onset of the epidemic, marital relationships started getting cold leading to marital conflicts. One participant said, *“For example, the tones were a little colder because there were some gaps between us”* (Participant #10). The feeling of intense control over social relationships by the spouse was one of the issues highlighted by the participants: *“I got very restricted and bored at home. I got irritable and sensitive. Sometimes I told my husband that he could go out but he imprisoned us. I asked him either let me go to work with full compliance with health protocol or allow me to see my friends, and things like this”* (Participant #12). Some participants stated that they experienced severe depression following the COVID-19 outbreak. For example, one of the participants stated, *“I’m very upset about not being able to do physical activity, and I even thought I was depressed and this feeling of excessive depression and anxiety led to the heartbeat and worry”* (Participant #16). Concerning the constant fights and disputes about the quality of children’s participation in online courses, one of your participants said, *“For example, one of my problems with my mom is that she blames me for why I’m not attending my online course and why I did you turn on the computer but I’m just playing with it or my phone. In short, she’s getting on my nerve”* (Participant #17).

Concerns about the occurrence of physical and mental problems for family members

The participants stated that they were worried about family members transmitting COVID-19 to another member, feeling of tiredness and confusion in family members, feeling of fear and insecurity following media warnings, increased obsessive behaviors, disagreement of parents and children on observing health protocols, the experience of death and loss in the family, the involvement of all the family members with the COVID-19, constant worry about getting COVID-19 or transmitting the disease to other family members, and getting involved in increasingly obsessive behaviors. For example, one participant said, *“One day I went out with a friend to a quiet place where we were alone, but I did not dare to take off my mask and even drink water because I was thirsty, because in addition to myself, I may transmit the disease to my family members, and this is very worrying”* (Participant #1). A while after the COVID-19 epidemic, fatigue, and feelings of boredom prevailed in the family members and caused them to start quarreling and making arguments: *“My son’s*

showing things such as depression, lethargy, grumbling, overeating, and cravings for digital media. We sometimes react to these behaviors. But we try to understand him and talk to him to find some solutions” (Participant #10). Some participants experienced severe stress and anxiety following warnings of death and the development of the disease: *“My husband was very worried about COVID-19 and was constantly following the news about it, and in the early days of the COVID-19 outbreak, our TV was constantly on the news channel”* (Participant #12). Following the COVID-19 epidemic, some participants said that their obsessive-compulsive behaviors deteriorated due to the anxiety they experienced: *“I became very obsessive about washing and cleaning and this changed my behavior. So, I became irritable and quick-tempered and got even more nervous than before”* (Participant #14). Concerning child-parent disputes over compliance with health protocols, one of the participants stated, *“My parents have become more sensitive to the way I interact with those around me, especially my friends, and they restricted my social interactions”* (Participant #24). Many participants stated that they had lost one of their family members. For example, one participant said, *“The biggest impact COVID-19 had on my life was that I lost the greatest blessing of my life, my dear mother, and that was the worst impact of COVID-19 on my life”* (Participant #18). Concerning the involvement of all the family members with COVID-19, one of the participants stated, *“Our family members got COVID-19 in the summer and it was our biggest challenge in the last year with lots of fear and stress. I was very concerned about my studies and the university entrance examinations and COVID-19 was added to it and we all got the disease”* (Participant 22).

The effects of changing working hours and economic problems on family interactions

The impacts of changing working hours and economic problems included marital conflicts due to changes in working hours and schedules, the impact of external stressors such as unemployment on family relationships, living with complicated economic problems and low household income, the family’s restricted access to electronic devices due to financial problems and thus sharing a device, and intensification of work-family conflict. Most of the participants complained about the change in the spouses’ jobs and working hours, followed by the emergence of new communication problems. For example, one of the participants stated *“Now that my husband has to work at home, he works from morning till night, and we spend a lot less time together than before, and I was*

really bored, and that makes me irritable" (Participant #3). Economic problems and inflation were the causes of many of the family problems for some of the participants: *"When men become unemployed and have to stay at home, they undergo many economic problems and thus they become nervous and aggressive, and their behavior affects the rest of the family members"* (Participant #4). The economic problems made many families broken and insolvent during the COVID-19 epidemic and the family members suffered from despair and hopelessness. For example, one of the participants stated, *"Prices are really rising day by day, and we are running out of money at the end of the month, even though we do not have any children and there are only two of us"* (Participant #15). With the outbreak of COVID-19 the prevalence of teleworking and the increasing use of electronic devices, there were growing disputes over hours of using electronic devices in families that did not have more than one device or could not afford more devices. One of the participants stated, *"All three of us had to use only one system and since we had no facilities, we had to use it one by one"* (Participant #10). Some of the participants also stated that they were experiencing the family-work conflict during this period: *"I was busy with online courses from morning to noon, and in the afternoons, I was preparing educational content for the children and checking their homework"* (Participant #18).

Consequences of coping with and rebuilding family interactions

These themes covered issues such as teleworking and a new opportunity to rebuild family interactions, turning challenges into opportunities and engaging educational and artistic activities, redefining functions and roles of family members, redefining the communication boundaries between family members, involving children more frequently in household chores, improving the quality of sexual relations, developing creative ideas and leisure activities, and child aggression. Some participants believed that the COVID-19 outbreak and working and living conditions helped rebuild their family interactions. For example, one participant said, *"My husband did not go to work for a few days, and his staying at home was a great help in caring for my child, which enabled me to complete much of my thesis at that time"* (Participant #13). For some participants, the COVID-19 epidemic was an opportunity to do the things they were interested in. For example, one participant said, *"I think doing delayed work for fun can be very helpful. For example, I am learning English and read more books"* (Participant #1). The roles and functions of

family members were redefined after a while to solve their problems: *"We tried to define our functions and privacy so that we do not interfere in other members' affairs and that we have divided the tasks so that their burden would not be imposed on a single person. We made ourselves busy with these works"* (Participant #2). Most participants stated that they redefined their communication boundaries in the family sometime after the start of the COVID-19 epidemic. One of the participants stated, *"I developed my relationships with my brother and sister because we better understand each other and about the online courses we have taken"* (Participant # 8). Many families encouraged their children to be more involved in household chores to reduce conflicts and tensions in their relationships: *"At home, we can do some of the things especially for children to make them busy and to fill the gap of not going out and playing with their friends"* (Participant #9). Some participants stated that closures and quarantine allowed them to improve the quality of their sexual relations. For example, one participant said, *"The other positive thing is that we have more time together and there is no party to go. We have more sexual relations and this is a positive thing for both of us"* (Participant #15). Some participants stated they did a variety of leisure activities at home during the COVID-19 outbreak: *"We even played twosome games like playing card and chess"* (Participant #7). Many parents expressed concern about the increasing of aggression and conflicting behavior in their children. For instance, one participant stated, *"Staying home has made our child aggressive and he/she does not listen to us much and has become rebellious"* (Participant #4).

A paradigm model of family interactive challenges

The paradigm model (Figure 1) addresses the interactive challenges, the quality of interactions, and coping strategies in the epidemic situation. In addition, the consequences of meeting these challenges are discussed. The interactive challenges identified in this study were disruption of family ties, decreased intimacy in family relationships, increased fights, conflicts, and quarrels in the family, spending too much time on children's education, and changes in family ceremonies and rituals. Moreover, the challenges related to the quality of family interactions were increased marital conflicts, increased aggressive behaviors in family members, cold marital relationships, feeling of intense control over social relations by the spouse, feelings of depression and inattention to family relationships, and permanent disputes over the quality of children's participation in online courses. Furthermore, economic problems,

unemployment, and health concerns also affected the quality of family relationships.

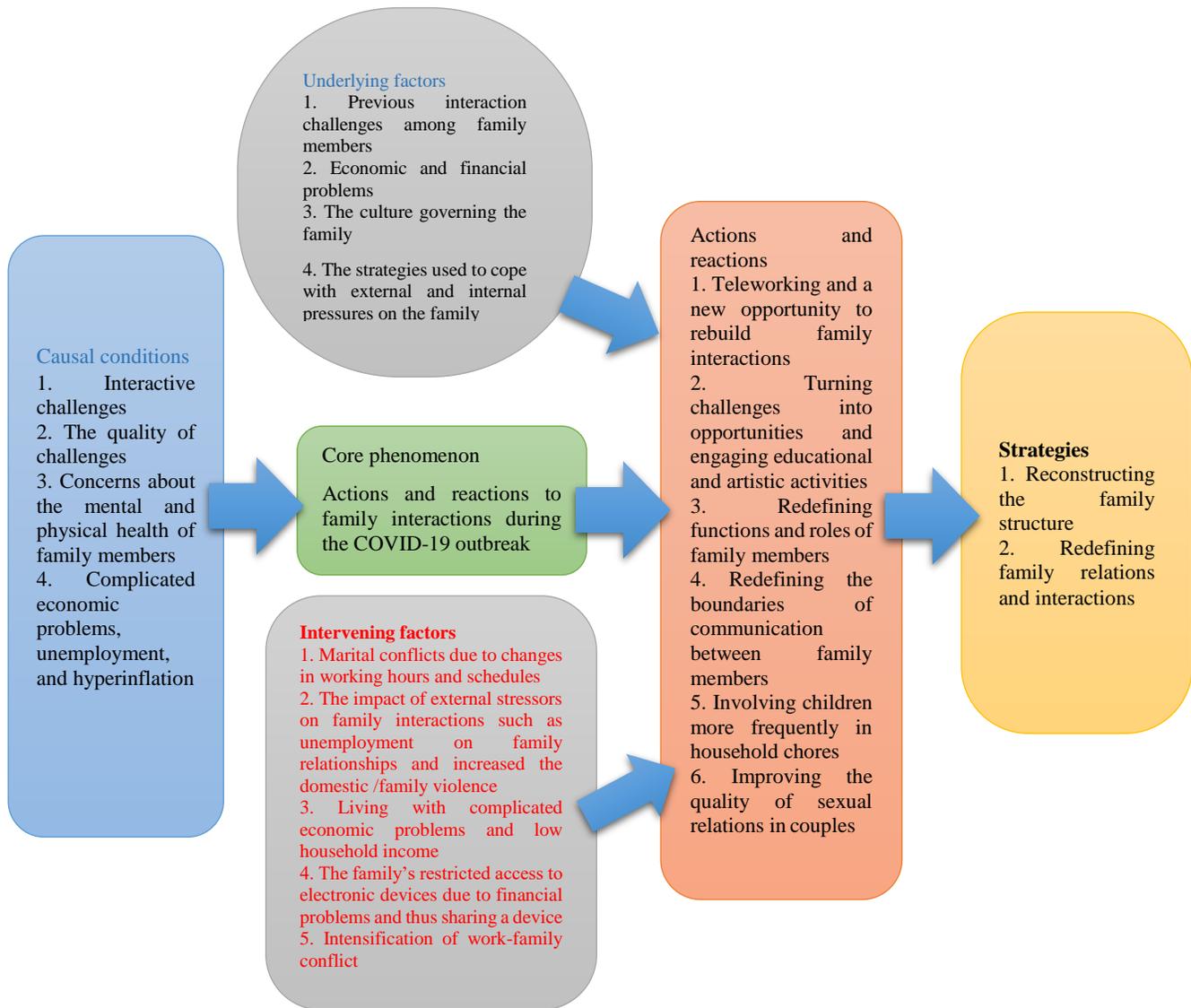


Figure 1. The paradigm model of changes in family interactions following the COVID-19 epidemic

4. Discussion and Conclusion

The results of the present study indicated that during the COVID-19 epidemic, followed by quarantine, the fear of spreading the disease by people and the unknown nature of the disease, they severed or minimized their family ties, and this led to the number of parties and family gatherings being reduced to a minimum. Accordingly, Eales et al. (2021) showed that the outcome of families struggling with COVID-19 restrictions and quarantine is social and perhaps psychological isolation and loss of socialization experiences in the family. By imposing quarantine restrictions, reducing working hours, reducing entertainment activities, and organization of online courses by schools and educational centers, family

members spend more time at home and together. Staying at home and excessive contact with family members led to boredom, monotony, and conflicts between siblings and other family members. As Liu (2020) observed, the COVID-19 epidemic has transformed family relationships in unprecedented ways, forcing many people to live physically closer to their relatives and apart from other family members on other occasions. Living in quarantine has necessitated close and constant contact with family members, but social isolation has isolated us from our friends and the wider community (Woodruff, 2020). Staying together for excessively long periods, weariness, and interference in the affairs of other family members led to conflicts and arguments among family members.

During the COVID-19 epidemic, with lockdowns and closing some businesses, as well as telecommuting, spouses spend more time at home and together. Due to more free time, as well as excessive contact between husband and wife, and the psychological pressure that COVID-19 has put on people, conflicts between spouses have increased. Usher et al. (2020) found some evidence that an increase in intimate partner violence in several countries directly threatens the well-being of children and those who are being abused, a danger that may be exacerbated by the increase in substance use during this period. COVID-19 has had a great psychological impact on people. Thus, aggression in family members has increased and has caused family members to treat each other aggressively. As pointed out by Fiese et al. (2002), according to family systems theory, the COVID-19 epidemic disrupts specific family subsystems (Fiese et al., 2019).

To understand the impact of the COVID-19 epidemic for family well-being, it is essential to examine the impact of these stressors on the family as a whole. Changes in the educational methods and the dominance of e-learning increased parents' control over their children's school attendance and their educational activities. This was one of the factors that caused some disputes between parents and children. Tsantefski et al. (2021) illustrate that identified high-risks in Domestic/family violence (DFV) centering on the victim/survivor views, and insist on perpetrator responses to judicial system.

In line with this finding, research has suggested that when children are not in school, they are less physically active, have poorer sleep health, and spend more time in front of the screens (Brazendale et al., 2017). This in turn leads to more conflict between children and parents. Epidemic stress, along with the pressures of working from home, increasing school closure time, and social isolation have all led to an increase in abusive behaviors in some family members (Ahmed, Buheji, & Fardan, 2020). Although quarantining people in the community helps keep them safe from disease, but children are neglected and victimized to the problems of adult's life. Separation from friends and school, parental unemployment, poverty and lack of food security, and exposure to domestic and family violence are the result of prolonged Covid-19 and parental neglect (O'Leary and Tsui, 2022).

One of the consequences of COVID-19 is the constant concern of people with COVID-19 and the subsequent transmission of the virus to other family members. This has left people who have to travel out constantly

worried and stressed about being transmitted and transmitting the virus to other family members. Previous studies have that the incidence of diseases such as respiratory diseases due to serious physical problems and reduced quality of life of patients will cause anxiety due to the disease (Wu & McGoogan, 2020; Dong et al., 2017; Valero-Moreno et al., 2020). As the virus spreads, the anxiety and stigma associated with it also increase. Anxiety, insomnia, fear of COVID-19, frustration, and irritability are some of the long-term effects of quarantine during an epidemic (Johal, 2009).

Due to the special nature of Covid-19 disease and how people get this disease, as well as the advice and warning of all doctors to observe hygiene, regular washing of hands and surfaces, regular disinfection of hands and tools, obsessive behaviors increased during this period. The uncertainty about the end of the COVID-19 virus outbreak and the constant emphasis on health protocols make people more obsessed with their actions and behaviors every day. The death toll from the COVID-19 epidemic has risen sharply, and many families have experienced the sudden death of loved ones and relatives from the virus.

Unemployment, followed by economic hardship, has caused great anxiety, worry, and concerns in families during the COVID-19 epidemic. In times of widespread economic turmoil, financial stress affects families directly through the loss of individual jobs, as well as indirectly through uncertainties about the national economy and/or local unemployment rates (Schneider et al., 2015, 2017). One of the serious consequences of COVID-19 was the economic problems that affected the lives of individuals. These economic problems made many families broken and insolvent and caused despair and hopelessness among family members. In addition to declining family incomes and unemployment and lack of income for several jobs, rising prices of food and cleaning products and other goods and equipment, lack of government support for livelihoods, the loss of revenues for those forced to close their businesses due to the COVID-19 put more pressure on families. In the context of COVID-19, acute financial stressors faced by caregivers are common. Unprecedented unemployment rates, the collapse of economic markets, and inadequate financial assistance packages from specific governments have left many families in financial distress (Prime, Wade, & Browne, 2020). Complete quarantine caused all family members to stay at home at the same time. Besides, schools and shops were closed and the staff were sent home. Most importantly, the pressure of the quarantine

environment, combined with the financial stress brought on by COVID-19, has led to an increase in marital conflicts in certain communities (Liu, 2020). The COVID-19 epidemic has forced families to maintain a work-family balance. With the closure of schools and daycare facilities, parents are solely responsible for caring for children and perhaps even homeschooling. However, many parents are also doing their work from home, while others have raised financial concerns about losing their jobs, and yet families whose members are healthcare staff may live away from their families to prevent COVID-19 transmission (Fisher et al., 2020). O'Leary and Tsui (2021) divided the family problems during COVID-19 into ten categories: First, family members living to lose their social relationships. Second, the existing generation gap between the grandparents and grandchildren. Third, single parents especially women isolated and separated. Fourth, couples and children have more time together, with lockdowns, working from home, and online schooling. This explains why there are increasing cases of domestic violence, child maltreatment, and relationship breakdowns such as divorce. Fifth, difficult to be both a parent and a teacher at home. Sixth, low-income families faced economic problems. Seventh is the diffusion of the boundary between office and home (Work and leisure are mixed). Eighth, the family has lacked a social life and community support. Ninth, secure, and adequate housing. These conditions can induce the spread of the virus. Last, costs of medical care and family caregivers.

One of the positive aspects of teleworking for some occupations was that people spent more time at home with other family members. Since people were forced to stay home, they did not know their roles and functions in the family, and sometimes only one person had to do all household chores. As a result of these challenges and consequent conflicts, family members redefined their roles and responsibilities and enforced new rules for the family. Similarly, Woodruff (2020) showed that during stressful experiences such as physical alienation due to an epidemic such as COVID-19 is normal for families to experience more conflict. Thus, family conflict can be a great opportunity to practice problem-solving skills and improve mental health. Such a practice would reduce the likelihood of blame on the part of family members, and with its explored consequences would lead to thinking of effective solutions. With the closure of educational and recreational centers and schools, children spend more time at home due to the high risk of COVID-19 transmission. As Ahmed, Buheji, and Fardan (2020) pointed out, physical distancing gave many people, especially young people, more opportunities to recognize their sense of social life by acknowledging the importance of spending time with family than with their friends. The long reunion of the family created new relationships and consequently a

positive environment and made many children feel happier, safer, and calmer during the experience (Khodabakhshi-Koolae, 2020; Szabo et al., 2020). Similarly, Fisher et al. (2020) showed that the COVID-19 epidemic offers men who stay home a unique opportunity to take a step towards childcare and housework. By doing so, families believing 'We are all in this together' may be able to best balance work and family life at this challenging time. In the face of these pervasive stressors, parents believed that their family members improved teamwork and conflict resolution (Eales, 2021). In addition, it is also possible that shared family experiences of coping with this great challenge of life may lead to a positive change in the family structure and functioning, such as post-traumatic growth (Calhoun & Tedeschi, 2014). Some parents took advantage of this opportunity and encourage their children to do housework and shared some of their responsibilities with the children to foster a sense of responsibility in them and make them busy with household chores.

COVID-19 has affected a wide range of family interactions, leading to weaker family ties, increased marital conflicts, feelings of depression and inattention in family relationships, cold marital relationships, and anxiety and worry about physical and mental problems in family members. The COVID-19 pandemic also has consequences such as economic problems, exacerbation of external stressors such as unemployment, disregard for family relationships, and intensified work-family conflict. This study also indicated that families rebuild family interactions by turning challenges into opportunities, redefining communication boundaries, rebuilding family interactions, and redefining family roles and functions. The COVID-19 pandemic has severely affected the nature and quality of family interactions. These interactive challenges and changes in the quality of family interactions have allowed family members to reconstruct their interactions so that they can adapt to new conditions and the relatively new and unknown COVID-19 phenomenon. To some extent, this phenomenon caused family members to know each other better and have closer relationships, leading to more cooperation and assistance at home and housework.

The researchers of this study did not interview children and adolescents in the household, who are likely to have different experiences, and may offer alternative explanations of interactions. Besides, the narratives told in the interviews considered the participants' experiences and their social, relational and cultural backgrounds, and therefore, more subjective than objective.

This research has implications for family counselors. First, the pressures of economic status, unemployment, and poverty (especially in developing countries) increase family stress levels and lead to aggression in society.

Therefore, counselors should support them through frequent visiting home with vulnerable families and allocate financial resources to them. Second, due to Covid-19 outbreak psychological and social pressures and domestic violence has increased. So, education, support and awareness of families are very important. Third, children are neglected or physical and emotional abused due to parental problems. When economic pressures and family life problems arise, children are the first victims. Counselors can help by supporting children at home, school and parent's training. Forth, considering the effects of the COVID-19 epidemic on members of the community, officials, managers, and cultural planners at the Islamic Republic of Iran broadcasting are recommended to allocate part of the content of the education and health channels to discussing issues related to family-related issues during the COVID-19 outbreak to help family members improve their positive psychological capacities by increasing communication skills in them and contribute to improving family relationships. Fifth, Researchers are also advised to focus on issues such as the relationship between couples' domestic/family violence before and after the COVID-19 in couples in Tehran, as well as the lived experience of families whose members infected with COVID-19.

5. Ethical Considerations

The purpose and design of the study was informed to participants. A written informed consent was obtained. The Researchers told them to the participants that the conversations would be recorded. In addition, the participants were told that they would be free to attend the interviews or leave the study. They were also ensured that their information including their data would be kept confidential.

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Declaration of conflicting interests

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