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Original Article

Biopsychosocial Needs of Elderly Individuals in Prolonged Social Isolation During the COVID-19 Outbreak: A Qualitative Study

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SUMMARY

Background: As countries are affected by COVID-19, the elderly population will be told to self-isolate for "a very long time" in Turkey and a lot of countries. The aim of study was to evaluate the biopsychosocial needs of elderly individuals in the COVID-19 outbreak.
Methods: In this qualitative research in-depth interview was used. A total of 20 participants aged 65 and over were interviewed. The interviews went on until no new data was obtained. All interviews were recorded digitally and the records were transcribed and coded by two independent researchers, who identified major themes by relevance.
Results: According to the in-depth interviews with elderly: all elderly people were exposed to fear and anxiety in this process and elderly living in rural areas were found to be less biopsychosocially affected by the pandemic process and it was observed that most elderly people were afraid to apply to health centers during pandemic even if they have a disease condition. The majority of the participants stated that they did not meet anyone outside the home during this period.
Conclusion: It is of great importance to evaluate these people within the framework of the biopsychosocial approach. Our study confirmed this need with in-depth interviews with the elderly. We are concerned about the effects of the curfew on elderly people appropriate; effective campaigns should be done to promote healthy life behaviors and physiological needs of them.

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1. Introduction

It is obvious that the COVID-19 outbreak has resulted in worldwide stress.[1] Although all populations are generally susceptible to COVID-19, elderly with underlying diseases are more susceptible.[2] The Centers for Disease Control and Prevention (CDC) reported that individuals aged over 65 years were responsible for 31% of COVID-19 infections, 45% of hospitalizations, and 80% of deaths caused by COVID-19.[3] In a study conducted in Turkey, case fatality rate of the hospitalized patients was stated as 18.5% and 32.8% for the age group ≥ 80.[4] These results suggest that elderly are more susceptible to COVID-19 and because of this, they are being asked to self-isolate for a very long time in Turkey and many other countries.[5]

The first COVID-19 case has been detected on 11 March 2020 in Turkey.[3] As January 14, there were 26.729.595 confirmed cases, with 23.325 deaths reported in Turkey.[6] During pandemic process, the decision makers at all levels of government have undertaken strategies and worked collectively with health experts and they constantly revised the policies and procedures.[7] Several measures have been taken against COVID-19 on the detection of the initial cases in Turkey.[7,8] As health measures, isolation, quarantine, social distance, and filiation play an important role in the fight of current COVID-19 outbreak. All costs related to the diagnosis and medical treatment of persons with COVID-19 were made free of charge. The most effective method of protecting vulnerable people is the effective separation of infected individuals and suspected or real carriers from unaffected populations and as of March 21, 2020, a curfew has been imposed on individuals aged over 65 years.[6,8]

It is important for elderly to continue to protect their well-being as a whole during isolation at home. In this process, their general health can be affected by the quality of activities of daily living. Muscle weakness caused by a lack of exercise at home can result in falls. Social isolation is significantly associated with higher risks of cognitive impairment,[9] and has psychological consequences.[10] In addition, when elderly have health problems, the fear of going to health centers may delay the care for non-COVID-19 diseases. It is therefore necessary to maintain the biopsychosocial well-being of the elderly.[11,12]

To the best of our knowledge, there is no original qualitative research on the biopsychosocial effects of the elderly during the isolation process. This study aimed to evaluate the biopsychosocial needs of the elderly during the COVID-19 outbreak with open-ended questions.

2. Materials and Methods

2.1. Participants

This was a qualitative study involving individuals aged over 65

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years who were enrolled in family health centers (FHCs) in Ankara, Turkey. Ankara is the capital city of Turkey and all measures applied in the country are applied in the same way in the capital. In family health centers, health promotion, disease prevention, treatment, rehabilitation and palliative care services were provided to everyone in all age groups. There were 6400 registered people in these FHCs, totaly. The study sample included elderly who were registered in two FHCs, one in a rural area (n = 352) and one in an urban area (n = 241). The convenience sampling, which is a variant of the purposeful sampling method, was used to form the study group. Accordingly, the inclusion criteria were as follows: (1) individuals who were over 65 years of age, (2) who could be contacted by phone, (3) who could understand and cooperate with researchers fully, and (4) who agreed to participate in the study. Thirty-two people were contacted for recruitment, ten of them refused to participate in the study, two of them were not cooperative and excluded. None of the participants had experience being suspected of having COVID-19 or in close contact with confirmed COVID-19 patients at the time of the study. The sample size was determined on the basis of the repeated occurrence of respondents' data and the fact that there was no new theme in data analysis, i.e., data saturation.

2.2. Data collection

The phenomenological method was used in the present study. The participants were interviewed using semi-structured questions. The interview guideline was prepared on the basis of published literature,[9–12] with modifications relevant to the context; it was piloted by two researchers and restructured.

Two researchers, who were familiar with the phenomenological method, took the pilot test and experienced in conducting a qualitative study, conducted all the interviews from May 1, 2020 to June 15, 2020. Before the interview, each interviewee was informed about the aim of the study and about digital recording and copying in an electronic format. After obtaining informed oral consent, the demographic questionnaires were filled, following which in-depth interviews were conducted. The mean duration of the interviews was 24 ± 9.76 min.

2.3. Data analysis

All the interviews were recorded digitally, and the records were transcribed. Colaizzi's method of phenomenological analysis was used to analyze the transcripts.[13] The analysis included reading the transcript several times to gain an understanding of meaningful statements and to formulate the themes present. The findings were then compared and discussed by the team until consensus on the themes, theme clusters, and categories was reached. The interview recordings were rechecked to test whether the data were correctly understood. Thematic codes were developed and examined for their inclusive and exclusive aspects.

2.4. Ethical considerations

The local ethics was approved from Ethics Committee of the Hacettepe University with the number of GO 20/488 at May 2020. The participants were informed about the study and informed consent was obtained according to the principles of the Declaration of Helsinki.

3. Results

Twenty participants with the age ranging from 66 to 91 years were interviewed. The characteristics of the participants are outlined in Table 1. Four themes were identified, as summarized below.

3.1. Biological needs

All the participants living in rural areas stated that they had no problems related to nutrition, sleeping, and physical activity in the curfew. Most of them reported that food exchanges were made collectively by the headman of the region or by neighbors or social support organizations. In addition, they stated that the products they got from the gardens and/or fields in the village met most of their nutritional needs.

"*Neighbors and headmen were always looking for providing food support. Aid agencies also came and fulfilled our needs...*" (P6)

"*…Collective announcements were made when necessary in the villages; we provided our shopping needs by phone. There is no problem with nutrition…*" (P9)

They stated that everyone has their own garden and/or field in villages; this prevents problems due to physical inactivity in the curfew.

"*…We always went to the garden; we did not have any physical activity problems...*" (P2)

"*…I live in the city in the winter; we have escaped to the village. There is no garden in our house; there is no park around the house. Here we are in the garden, and we can always move.*" (P5)

However, the participants living in urban stated that they had problems, especially related to physical inactivity. All except one elderly participant living in urban areas stated that they had problems related to physical activity.

"*We are stuck at home. There is no balcony at home, and we cannot move at all; my pains have increased. We have gained weight. I don't know what to do.*" (P12)

"*I have diabetes. I would be careful about my nutrition, but now, we have gained weight. My blood glucose levels became irregular. My diet was broken, we could not move, and our psychology was broken.*" (P20)

None of them had any problems related to sleep during this period. Although the participants did not have a major problem

Table 1
The characteristics of the participants.

Participants	Gender	Age	Region	Chronic disease	Size of the household
Participant-1	Female	75	Rural	Existent	2
Participant-2	Male	82	Rural	Existent	2
Participant-3	Male	70	Rural	Existent	1 (alone)
Participant-4	Female	69	Rural	Existent	2
Participant-5	Female	66	Rural	Non-existent	2
Participant-6	Female	91	Rural	Existent	1 (alone)
Participant-7	Male	71	Rural	Existent	4
Participant-8	Male	79	Rural	Existent	5
Participant-9	Male	76	Rural	Existent	6
Participant-10	Female	71	Rural	Existent	2
Participant-11	Male	74	Urban	Existent	1 (alone)
Participant-12	Male	70	Urban	Existent	2
Participant-13	Female	68	Urban	Existent	4
Participant-14	Female	73	Urban	Existent	3
Participant-15	Female	76	Urban	Existent	5
Participant-16	Male	68	Urban	Non-existent	2
Participant-17	Female	77	Urban	Existent	2
Participant-18	Male	85	Urban	Existent	2
Participant-19	Female	76	Urban	Existent	4
Participant-20	Female	79	Urban	Existent	2

related to nutrition, some elderlies especially with advanced age (age 75 and above) stated that they faced difficulties in food shopping.

"*At first, the building staff took care of our needs, and then, there were some supporters from charitable organizations. However, there were times when we had trouble shopping.*" (P11)

In addition to those who paid more attention to their diet, seven elderly mentioned having an impaired diet due to the curfew. Some elderly patients stated that they received additional vitamin supplements during this period, and one of them stated that she started eating too many fruits during the pandemic, while she does not normally eat much.

"*In this process, we paid more attention to our diet because I was afraid. I bought vitamins for my granddaughter and myself, and we both used them...*" (P15)

3.2. Psychological needs

All the participants expressed their anxiety during the pandemic. They stated that the news about the risks, especially for the elderly and those with chronic diseases, as well as the intense pressure on the families due to this issue caused more anxiety. Some participants mentioned that their relatives refrained from meeting, even if they wanted to meet.

"*We were scared... We went to our garden; what should those in the city do? I was scared about not being able to get up. We have a lot of chronic diseases. They said that this disease kills someone with high blood pressure. I have high blood pressure.*" (P4)

"*I have asthma. If I go out and get infected with the disease, it would first kill me. No, I never got out; I am very careful. I'm scared, of course.*" (P10)

"*We've been home for months; we don't know what is going on outside, other than whatever we see on TV. The kids keep saying, 'Don't go out'. We are bored now. We are stuck in big city buildings. If we had a garden, we'd have been scared…*" (P11)

The participants living in rural areas said that being able to go out once a week did not make much difference to them, as already they had a chance to go to their gardens. The participants living in urban who went out stated that going out made them feel good. However, two of them stated that they were restless because of the risk of being infected outside.

3.3. Social needs

Most participants stated that they did not meet anyone outside the home during this period. The participants living in rural stated that they did not go out of their house and garden and did not see anyone, except for the days when a doctor visited for examination. Most of the participants stated that they saw their building staff, neighbors, or their children only through the door and did not invite them to their house.

"*I did not meet anyone. I have not seen my children for three months. My son is a cancer patient; I can't even see him. We are at home with my wife. The fact that my son is a cancer patient makes me very sad... I cry every day.*" (P1)

Except for one elderly participant living in a rural, none had Internet access in their home or phone. In contrast, only two advanced aged (age 75 and above) participants living in urban areas did not have Internet access.

"*What a beautiful thing the Internet is. I understand most things now. I saw my children through the phone and read the news. Having Internet access in the pandemic was very good.*" (P11)

3.4. Health care needs

The participants living in rural stated that they had a chance to meet with a physician once a week through the mobile health service provided by their family physicians.

"*The doctor comes to the village; we would normally go to the health centers to the controls. They said don't go, so we didn't go. We have a lot of health problems.*" (P1)

The two elderly participants living in rural areas stated that they had serious health problems but did not go to the health center.

"*One day, my blood pressure rose to 120/200. I didn't know what to do. My neighbor's daughter, who is a doctor, asked me to take my medicine and wait. I waited with fear…*" (P3)

"*I have diabetes and high blood pressure. My blood glucose level rose to 500 mg/dL at home one day. We couldn't go to the hospital. There is a weed used here to drop the blood pressure levels". I took my medicine. It fell to 200. I still couldn't go to the hospital.*" (P8)

Some participants living in urban areas reported that they had never applied to the health center, while others stated that they went to the family health center.

"*We never went to the hospital; we just went to the family health center. We were able to buy drugs from the pharmacy, but there are queues at the pharmacy; again, there is a risk of infection. When we received a prescription at the health center, we could get medicines for at least three months, but the doctor got angry when we left. We were surprised and did not know what to do.*" (P17)

"*They said that pharmacies gave drugs without prescription, but only reported ones. How to get the other drugs? I need a stomach protector and painkillers. We had to go to the family doctor. The nurse got angry at me for putting myself at risk, but what should I do?*" (P19)

Most participants stated that family physicians contacted them via phone calls.

"*My family physician called me. It is very good to get support from someone who is knowledgeable about COVID-19 when we are longing for a human to speak with.*" (P11)

4. Discussion

Prolonged social isolation of the elderly during COVID-19 may cause medium- and long-term secondary damages; this must be considered during risk assessment. The present study identified key issues related to the biopsychosocial needs and experiences of the elderly in isolation during the COVID-19 pandemic. The evaluations were made on the basis of the place of residence (rural/urban area), and in general, it was observed that all elderly were exposed to anxiety during this pandemic. Moreover, the elderly living in rural areas were found to be less biopsychosocially affected by the pandemic. Another important finding was that most elderly were afraid to apply to health centers during the pandemic, even if they had a disease or condition.

As the novel coronavirus continues to spread worldwide, elderly continue to quarantine themselves at home because of the curfews applied in most countries. However, a lack of physical activity and poor eating habits pose risks to their health.[11] The differences in lifestyle, including nutrition, physical exercise, stress, and interpersonal support, were also apparent between rural and urban areas. The elderly living in rural stated that they had no problem related to nutrition and access to nutrients during the curfew. The fact that the number of people in these areas is less and everyone knows and supports each other could be considered as the reason for the absence of these issues. In the present study, all the elderly living in

rural lived in village houses. Moreover, each of them had a garden and/or a field in front of their house. They regarded this as an important opportunity to produce their own nutrients during the curfew. In contrast, some elderly living in urban, where it is normally easier to access food, stated that they occasionally experienced difficulties in this regard. These elderlies were especially with advanced age ones (79 years old and 85 years old). Interestingly, that people in the same age group do not have Internet access. It can be thought that these people have difficulties in communicating and reaching other people, especially in terms of biological and physical needs. Although a large number of participants mentioned the support of some charitable organizations, relatives, and neighbors, some participants also stated that the aids decreased over time. Moreover, some participants stated that they paid more attention to their diet, while some mentioned that their diet was impaired because of the curfew. Poor eating habits, such as eating packaged, processed, and store-bought foods and excessive snacking, were associated with numerous health problems. Some of the elderly participants mentioned that they started eating more snacks during the curfew. However, it should be noted that some elderly were more careful about their diet due to the risk and fear of infection and started to take supplementary multivitamin preparations during the pandemic.

Physical activity in the elderly positively affects and prevents frailty, sarcopenia/dynapenia, risk of falls, and cognitive impairment.[14] In our country, it was completely forbidden for the elderly to go out for a long time during the pandemic. After a while, they were allowed to go out for a few hours once a week. Although quarantine/curfew is a measure to protect them from COVID-19, it can lead to physical inactivity and sedentary behavior. Goethals et al. stated that the number of elderly attending group physical activity programs has been negatively affected because of the home quarantine measure during the COVID-19 pandemic.[15] In the present study, no change was noted in the physical activity status of the elderly living in rural because they could go to the garden/field. However, the elderly living in urban particularly had serious problems related to physical activity. They stated having problems related to weight and pain due to physical inactivity.

As stated in the WHO guidelines, "Olders, especially those in isolation and those with cognitive decline/dementia, may become more anxious, angry, stressed, agitated, and withdrawn during the outbreak or while in quarantine".[16] Moreover, Steinman et al. stated that olders isolated at home during the COVID-19 pandemic need much more physiological support than others.[11] The psychological impact of quarantine has been reviewed,[17] and negative psychological effects have been reported. Some qualitative studies have mentioned confusion, fear, anger, grief, numbness, and anxiety-induced insomnia as psychological responses to quarantine.[18–21] In the present study, all the participants experienced fear, restless, and anxiety due to the pandemic, in accordance with previous findings. Separation from relatives, loss of freedom, uncertainty regarding the disease status, news about COVID-19, and risks for the elderly had effects on their psychology. Being able to go out once a week did not affect the life of the elderly living in rural areas; however, half of the elderly living in urban stated that they went out and felt good. The remaining elderly living in urban stated that they continued to stay at home due to the fear of infection. Focusing on mental health during such anxious times is also very important.

In the present study, most elderly participants stated that they did not meet with anyone outside the home during this period. All the participants reported that they interacted with their relatives by phone. We also questioned the participants about their current status and effects on Internet use for social communication. Most participants living in rural did not use the Internet, while the opposite was observed in the case of participants living in urban. The Internet users mentioned the fact that being able to talk to their relatives via video calls reduced their longing. Similarly, Wagner et al. stated that the various features of Internet use among the elderly were positively associated with life satisfaction and perceived social support and negatively associated with despair levels.[22]

As health systems prioritize the care of patients with COVID-19 by delaying elective procedures, the frequency of admission of patients to health institutions has decreased.[11] Countries have provided various regulations on this issue. In Turkey, for example, reported medicines of the elderly could be directly bought from the pharmacy and elderly could be monitored by family physicians by phone. In the present study, the elderly living in rural reported that they did not have a secondary/tertiary health center close to them in order to visit for every health problem. Moreover, two participants living in rural stated that they had serious health problems but did not go to the health centers. Some participants mentioned that the measures taken for the elderly are inadequate or unstructured. All the elderly participants talked about the happiness and trust arising from their family physicians' phone calls.

In summary, although elderly people are highly susceptible to death from COVID-19, their non-COVID-19 care should not be forgotten. It is extremely important to evaluate these people within the framework of the biopsychosocial approach. The present study confirmed this need with in-depth interviews of the elderly. The effects of the curfew on elderly people should be considered, and appropriate and effective campaigns should be organized to promote healthy life behaviors and address physiological needs.

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Declaration of any potential financial and non-financial conflicts of interest

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