

Anxiety and Stress Experiences of Individuals with Chronic Diseases in the COVID-19 Pandemic: Qualitative Research

Abstract

Background: Coronavirus disease 2019, caused by the severe acute respiratory syndrome coronavirus 2, is a global pandemic resulting in the deaths of more than 3 million people across the world. It has been reported to be more fatal in individuals with chronic diseases than in healthy adults without a diagnosis of hypertension, diabetes, cardiovascular disorders, or respiratory system diseases.





Aim: To determine the experiences and attitudes of individuals with comorbidities in relation to the coronavirus disease 2019 pandemic.

Methods: This qualitative-phenomenological study was conducted with individuals with chronic diseases among the family members of students attending the Healthcare Services Department of Eldivan Vocational School of Health. The sample of the study consisted of 17 individuals with chronic diseases. Data were collected through online interviews conducted between June and July 2020. The obtained data were analyzed using content analysis, and themes were created.

Results: The mean age of the participants was 67.17 years; 47% were men, and 53% were women. From the data obtained through the interviews, 2 main themes emerged in relation to the pandemic experiences of the participants: negative emotions and positive responses. The theme of negative emotions related to the pandemic was further divided into the following sub-themes: fear of death, fear of being in social environments, lack of information about the pandemic, and external pressures. The theme of positive responses had 2 sub-themes: trust in government and spirituality, and individual measures.

Conclusion: Individuals with chronic diseases have experienced many positive and negative emotions during the pandemic period. It is recommended to establish emergency information and advice lines for these individuals, provide them with training on health communication and health literacy, and raise their awareness of similar pandemics through practices such as public service announcements.

Keywords: COVID-19, chronic diseases, qualitative research, SARS-CoV-2, pandemic

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Introduction

Coronavirus disease 2019 (COVID-19) emerged in December 2019, with the World Health Organization (WHO) China Country Office reporting cases of pneumonia of unknown etiology in the city of Wuhan, Hubei province of China. On January 7, 2020, a new agent that had not been previously detected in humans was identified as the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and the disease caused by this virus was named "COVID-19." Finally, in March 2020, WHO declared COVID-19 as a pandemic, with the world preparing to take serious social measures to prevent the spread of the disease.¹

Many national and international measures have been taken to reduce the effect of the disease and slow its transmission rate. Measures taken on an international scale included the closure of borders, the suspension of flights, the implementation of comprehensive health screening, and the cancellation of sports competitions and sociocultural events, such as scientific congresses and concerts. On a national scale, distance education was suspended, intercity transportation was restricted, a permanent curfew was imposed on certain age groups and a general curfew on weekends, mask use was made compulsory in supermarkets, markets, subways, buses, etc., and quarantine practices were applied.

Cite this article as: Gönderen Çakmak H S, Gönderen K, Aykut S, Soner Aykut S. Anxiety and stress experiences of individuals with chronic diseases in the COVID-19 pandemic: qualitative research. *J Educ Res Nurs*. 2023;20(1):1-6.

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Received: September 15, 2020

Accepted: May 4, 2021

Publication Date: March 10, 2023



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These measures forced social isolation and led individuals to make changes to their lives.²

Initial data on COVID-19 showed that the common symptoms of the disease were fever, cough, and dyspnea. In more severe cases, pneumonia, severe acute respiratory tract infections, renal failure, and even death were reported.³ While the mortality rate was 0.5%, especially in individuals younger than 50 years of age, this rate was over 8% in those aged 70 years or older.⁴ Another issue that attracted attention was that older adults and those with underlying health conditions were at the greatest risk for serious infection and death from COVID-19, and most individuals who died had comorbid diseases, such as hypertension, diabetes, and cardiovascular diseases.^{5,6} In particular, individuals with diabetes mellitus, hypertension, lung and heart diseases, and elderly people constitute the risk group that required a longer hospital stay.⁷ The data related to the pandemic period showed that individuals with chronic diseases were more likely to have a fatal course of COVID-19 infection, require more advanced life support, and have a longer hospital stay.⁸⁻¹¹ In a study conducted with a cohort of 813 patients infected with COVID-19, Zhou et al¹¹ reported high mortality rates among patients with diabetes mellitus and coronary artery disease. Another study reported that the risk of intensive care requirement was higher in those with cardiovascular disease among a total of 1527 SARS-CoV-2-infected cases.¹² Similarly, in a multicenter study including 168 patients with COVID-19 infection, 74.4% of the patients were found to have at least 1 chronic disease.¹⁰

Individuals with chronic diseases were among the most affected patient groups during the COVID-19 pandemic in Turkey, as was the case in most parts of the world. Studies have also shown that individuals experience higher levels of stress, anxiety, and depression after staying at home and following social isolation measures.^{13,14} Stress, anxiety, and depression levels increase, especially in risky groups, that is, in individuals with comorbidities.¹⁵ Therefore, defining the experiences and attitudes of individuals with comorbidities in relation to the COVID-19 pandemic is very important for the maintenance of public health.

Objective

This study aimed to determine the anxiety and stress experiences and attitudes of individuals with chronic diseases during the COVID-19 pandemic.

Research Questions

1. What are the anxiety and stress experiences of individuals with chronic diseases during the COVID-19 pandemic?
2. What are the attitudes of individuals with chronic diseases during the COVID-19 pandemic?

Materials and Methods

Research Type

This research used a phenomenological design and qualitative research approaches to uncover trends in and delve into the thoughts and attitudes¹⁶ of individuals with chronic diseases to determine their anxiety and stress experiences during the COVID-19 pandemic.

The phenomenological approach is based on psychological and philosophical principles, focusing on facts related to people's life

experiences without having a deep and detailed understanding of them. Phenomena refer to the experiences and situations faced by individuals.¹⁷ Individual experiences form the basis of the phenomenology approach. In phenomenological studies, data analysis is aimed at revealing the experiences of participants and their meanings.

Research Sample

Individuals older than 18 years with at least 1 comorbidity who agreed to participate in the study were included in the sample. For the study, students attending the Healthcare Services Department of Cankiri Karatekin University Eldivan Vocational School of Health were contacted, and those with a family member with chronic diseases who volunteered to participate in the study were identified. The purposive sampling method was used in sample selection. The participants were reached by snowball sampling, and the sample size was finalized according to data saturation, that is, at the point where no new themes emerged from the experiences of the participants. When data saturation was reached, the sample consisted of 17 individuals.

Data Collection Tools

Data were collected using 2 questionnaires prepared by the researchers in light of the literature.^{2,4,15,18}

Descriptive Information Form

This form was prepared in the light of the relevant literature and contained questions on sociodemographic characteristics (age, gender, marital status, etc.) and chronic disease characteristics (disease duration, treatment, presence of other chronic diseases, etc.).

Semi-structured Individual Interview Questions Form

The questions in this form were planned as open-ended to allow the patients to express their emotions without any restriction. The form consisted of the following 4 questions:

1. What is the history of the emergence of your chronic disease?
2. What was the first reaction of those around you when you were diagnosed with a chronic disease?
3. What has changed in your social, personal, and work lives after being diagnosed with a chronic disease?
4. As you know, there is an ongoing COVID-19 pandemic, and the elderly and individuals with chronic diseases have been declared to be at risk. How does the current pandemic process make you feel as an individual with a chronic disease? Does it cause anxiety or stress? Please explain.

Data Collection Process

Semi-structured interviews were conducted at an appropriate time chosen by the participants. The duration of interview with each participant lasted an average of 20 minutes. The interview was conducted via the zoom meeting link created by the researcher. The participants were asked not to allow the recording of Zoom meeting interviews. Permission was obtained from the participants to record the entire interview in writing. All the researchers participated in the interviews, but only 1 person conducted the interview. The remaining

3 researchers contributed to the transcription of the interview without intervening.

Data Evaluation

During and at the end of the interview, the transcription of the interview was prepared by 3 researchers as a Word document on the computer. The text consisted of 3 pages, with a 12-point font and 1.5 line spacing. Within 24 hours after the interviews, all 4 researchers combined and analyzed the data. No major discrepancy was observed among the coders. Interview notes and data analyses were in Turkish. All authors agreed with the results, and highlighted citations were selected for data analyses. The statements of the participants were transferred as they were, with no changes being made to their comments.

Content analysis was used to evaluate the data. Content analysis is a technique used in the analysis of text prepared with coding based on certain rules. The aim of this method is to conceptualize the data by presenting the problem in a systematic and impartial manner¹⁹ and to reveal themes that can describe the phenomenon. Results, which are presented with descriptive expressions, often include direct quotations. In addition, findings are explained and interpreted based on emerging themes and patterns.²⁰ In this research, coding was performed on the data, and then themes were formed using the coded data. In light of these themes, the findings were revealed, and results were reached. To ensure the reliability of the content analysis, the analyses were finalized after being reviewed by another expert in the field.

Ethical Considerations

For this research, approval was obtained from the Ethics Committee of Cankiri Karatekin University, with the date June 8, 2020, and decision number 226. The aims of the study and the voluntary nature of the study were explained to the participants, and their verbal informed consent was obtained before each interview. Confidentiality was ensured by using numbers (Patient 1, P1, P2,), not participant names.

Results

Sociodemographic Characteristics

The mean age of the individuals who participated in the study and had at least 1 chronic disease was 67.17 ± 9.67 years. The oldest participant was 85 years old, and the youngest was 51 years old ($n=17$). Forty-seven percent of the individuals with chronic diseases were men, and 53% were women (Table 1). Thirteen percent of the participants were working, and 87% were not working. Five participants were high school graduates, and 12 were primary school graduates. The most common chronic diseases among the participants were hypertension, type 2 diabetes, and asthma. While 16 of the participants were followed up in a state hospital for their chronic diseases, 1 was not under any follow-up (Table 2).

In this study, 2 main themes related to the pandemic experiences of the participants were identified: negative emotions and positive responses. The theme of negative emotions was further divided into the sub-themes of fear of death, fear of being in social environments,

Table 1. Sociodemographic Characteristics of the Participants

Characteristic	n	%
Age, years 67.17 ± 9.67 (51/83)		
Gender		
Female	9	53
Male	8	47
Education level		
Primary school	12	70
High school	5	30
Marital status		
Married	15	88
Widowed	2	12
Employment status		
Working	2	13
Not working	15	87

Table 2. Data on the Chronic Diseases of the Participants

	n	%
Chronic disease		
Hypertension	14	82
Type 2 diabetes	8	47
Asthma	2	12
Colon cancer	1	6
Breast cancer	1	6
Epilepsy	1	6
Depression	1	6
Arrhythmia	1	6
Bronchitis	2	12
Osteoporosis	1	6
Disease follow-up		
State hospital	16	94
Private hospital	0	0
Not followed up	1	6

lack of information about the pandemic, and external pressures. The theme of positive responses consisted of 2 sub-themes, namely trust in government and spirituality, and individual measures (Figure 1).

Negative Emotions Related to the Pandemic Experiences

Sub-Theme 1: Fear of Death

It was observed that COVID-19 pandemic had a more negative effect on individuals with chronic diseases, causing fear of death and negatively affecting their lives.

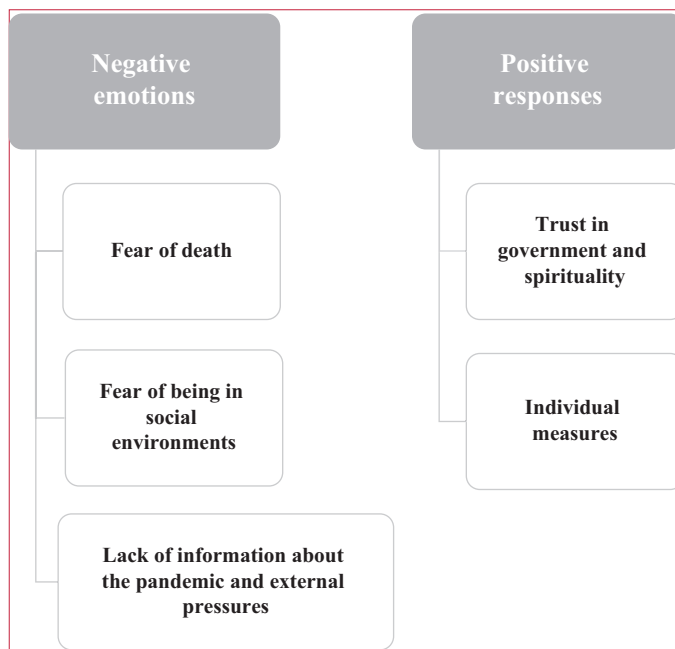


Figure 1. Themes and sub-themes of the study.

I have a fear of death, and every day I worry about whether I will be infected with the virus. This worsens my illness (P3).

It is impossible not to worry or not to be stressed. For those with chronic illnesses, an invisible enemy is out there to kill (P5).

I am very afraid that the virus will infect me. I have a fear of death. I am very stressed because of it. I cannot step outside (P7).

This pandemic is stressing me out. I can't even go out the door because of my fear, and I start crying for no reason because I think I will get the disease. Due to my chronic illness and age, I have a fear of death (P12).

Sub-Theme 2: Fear of Being in Social Environments

It was determined that the individuals participating in the research experienced fear of being in social environments due to the possibility of contracting COVID-19. They paid attention to social isolation due to the high risk of virus transmission from person to person through coughing, sneezing, and contact. Individuals working in the public service sector or in crowded environments were even more anxious about contracting the virus.

Because of the pandemic, I'm afraid to get close to my own children (P12).

People always coming into the shop is a big threat. I unload goods for my shop, and I'm very worried that other people will infect me... I am engaged in trade. I cannot pay much attention to my hygiene because my job is busy, and I am always on the go. This makes me feel stressed (P4).

Sub-Theme 3: Lack of Information About the Pandemic and External Pressures

It was observed that the information pollution and inadequate awareness related to the COVID-19 pandemic caused anxiety in the participants about protection from the disease.

I'm not sure if staying in and washing my hands is enough. We are in great uncertainty (P7).

An invisible, unknown enemy, no matter how much we stay at home. It feels like it will infect us even if we just opened the window (P3).

In addition, it was determined in the interviews that external pressures also led people to change their daily life routines, and this was a main stress factor.

I don't actually have any anxiety. I am taking all precautions, but my family members keep me at home, and this stresses me out (P1).

I live in the same house with my children. Because they work, I'm more likely to get sick. They made me a separate room and isolated me at home. Because I am old, they worry about me. This makes me feel more stressed (P8).

My children locked me in the house. I'm trapped at home. I can't go out at all. No one comes to my house thinking that they could infect me. This overwhelms me (P14).

My children are very stressed. They do not accept guests in the house. They locked me in the house. I am naturally overwhelmed by what's going on (P16).

Positive Emotions Concerning the Pandemic Experiences

Sub-Theme 1: Trust in Government and Spirituality

During the interviews, the participants were observed to believe that measures taken at the social level, such as curfews imposed by the government, practices implemented for certain age groups, and public service announcements encouraging people to stay at home prevented the spread of the disease. It was also determined that the spiritual feelings and beliefs of the individuals had an effect on reducing their stress and anxiety levels.

I am not that worried. I spend time at home. What would I do if I went out? Everywhere is a horrible disease. It is all over the news: "do not go out". We listen—we take measures (P10).

What is there to worry about? We do what we are told. We do not leave the house. When death comes, it will find you anywhere (P11).

I don't feel anxiety or stress. We will all die one day anyway (P13).

I am not worried. We take the measures recommended by our government. They also take them. I pray (H17).

Sub-Theme 2: Individual Measures

It was observed that the anxiety and stress levels of the participants decreased, and they felt safer if they followed the measures taken at the individual level, such as wearing masks, paying attention to personal hygiene, complying with social distance rules, staying at home, and not using public transport frequently.

I do not experience anxiety or stress because I protect myself, take precautions, pay attention to my diet, and don't contact anyone (P2).

I do not use public transport. I do not go out unless it is necessary. I use a mask. I think I minimize the risk by doing this. I have no anxiety or worry (P6).

It seems to me that there is nothing. Life continues the same for me. I don't normally go out anyway. I look after my garden and perform prayers (P9).

I don't have stress and anxiety because I pay more attention than I need to. I don't go into public places. I wash my hands (P15).

Discussion

Coronavirus disease 2019, which is considered a global threat and was declared a pandemic by WHO, mostly affects individuals in society with chronic diseases. In this research, 2 main themes were determined in relation to the pandemic experiences of individuals with chronic diseases: positive responses and negative emotions. Negative emotions about the pandemic included fear of death, fear of being in social environments, lack of information about the pandemic, and external pressures, while positive responses consisted of the sub-themes of trust in government and spirituality, and individual measures.

It was determined that the individuals with chronic diseases participating in the study were generally worried and concerned about their health due to the uncertainties of the pandemic. The pandemic affected them negatively, leading them to change their social lives and stopping them from seeing their family and friends. The inability to establish a close relationship and be in contact with their loved ones resulted in a different lifestyle to which they were not accustomed. Similarly, in semi-structured interviews conducted by Grabowski et al²¹ with diabetic patients, it was determined that these individuals experienced a perception of uncertainty due to the lack of concrete information concerning the relationship between COVID-19 and their disease. They also stated that the pressure of perceived uncertainty caused unbearable stress.

Studies have also shown that individuals with chronic diseases have higher levels of stress, anxiety, and depression than those without chronic diseases. Furthermore, individuals with serious illnesses or multiple comorbidities are reported to exhibit higher levels of psychological symptoms in the face of crises, such as a pandemic.^{15,22}

In this study, it was determined that the participants experienced negative emotions, such as fear of death, fear of being in social environments, lack of information about the pandemic, and external pressures. The uncertainties of the pandemic and the information pollution contained in various videos and images published on social media led to fear, anxiety, and stress in these individuals. In a study by Zhong et al.²³ it was stated that decreased social bonds and loneliness during the implementation of quarantine measures could accelerate physical and cognitive decline in older adults. Fear, uncertainty, and stigma are common in biological disasters; therefore, it is important to apply appropriate clinical and mental health interventions to risk groups in such periods.²⁴ In a study conducted with individuals with diabetes, it was observed that the restrictions applied due to the COVID-19 infection created a feeling of being excluded or forgotten in individuals.²¹ It is known that coping style, cognitive assessment, and social support are mediators of stress. Studies have shown that psychological adjustment and social support play a mediating role in psychological rehabilitation under the stress caused by the pandemic.²⁵ It is equally important to determine the actual psychological state of potentially targeted groups for such interventions since each group may perceive risk differently.¹⁵

In a survey conducted with 600 individuals with chronic diseases, it was reported that most of the individuals perceived the threat of the COVID-19 pandemic to be serious, but their levels of anxiety differed.

Half of the respondents considered that COVID-19 infection and flu posed equal threats, while the remaining half reported being more concerned about the former.²⁶

While trust in government was seen as a positive reaction in our study, Wolf et al²⁶ found that only 1 in 10 people who participated in their survey study in Chicago expressed confidence that the federal government could prevent a nationwide outbreak of this virus. The authors also reported that people with low health literacy had greater confidence in the federal government's response.

Although no theme related to the increased need for cleaning emerged in our research, a study showed that increased vigilance toward cleanliness and hygiene, combined with fear of infection and illness could result in more anxiety than normal and manifest as the development of anxiety disorders in those with pre-existing psychiatric problems.¹⁸ It was determined that the participants in the research were generally knowledgeable about the pandemic, the transmission routes of the virus, and ways of protection. It is considered that the public spots and television programs they watched were effective in this situation. However, it was also observed that the information disseminated across various social media channels also increased their anxiety and fear levels. In a previous study, many psychiatric hospitals, psychological counseling centers, and psychology departments at universities established special telephone helplines to offer psychological counseling during the pandemic by filtering the information published by the news media and social media.¹² It will also be beneficial to help individuals develop the skills necessary to analyze and filter the information they obtain from social networks.¹⁵

Limitations

Since the data collection process was undertaken using verbal communication techniques, only individuals who were able to establish healthy communication were included in the sample. In addition, due to the pandemic conditions, the research was conducted through Zoom meetings; therefore, interviews were not conducted face-to-face. Although we do not consider that this situation affected our results, it can be predicted that the sample size would have increased if we had been able to meet the participants face-to-face.

Conclusion and Recommendations

During the COVID-19 pandemic, which is highly contagious and has a relatively high mortality rate, adults with chronic diseases experienced many positive and mostly negative emotions, as the population with the highest risk of mortality and morbidity associated with the disease. In our study, in addition to negative experiences, such as fear of death, fear of being in social environments, lack of information about the pandemic, and external pressures, the participants also had positive responses in relation to their trust in government and spirituality, and individual measures. In times of crises, the maintenance of not only physical but also mental health is crucial. In light of our results, we consider it very important to understand how vulnerable groups respond to social developments. In the following period, it is recommended to improve health communication concerning risks, establish emergency information and counseling lines, filter information pollution and negative news on the media and social platforms, create channels that will ensure that only accurate information is provided, and raise public awareness through practices, such as education on health communication and health literacy, and public service

announcements. These practices can help reduce the stress caused by the uncertainties of the pandemic, address the lack of information about the pandemic, and eliminate the unnecessary overprotective attitudes of individuals. In addition, we consider that online peer support studies can reduce the loneliness, uncertainties, stress, and anxiety experienced by individuals with chronic diseases under pandemic conditions.

Ethics Committee Approval: Ethics committee approval was received for this study from Çankırı Karatekin University Ethics Committee (date: 8.6.2020 and 226 number).

Informed Consent: Informed consent was obtained from the participants who participated in the study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – H.S.G.Ç., K.G., S.A., S.S.A.; Design – H.S.G.Ç., K.G., S.A., S.S.A.; Supervision – H.S.G.Ç., K.G., S.A., S.S.A.; Resources – H.S.G.Ç., K.G., S.A., S.S.A.; Materials – H.S.G.Ç., K.G., S.A., S.S.A.; Data Collection and/or Processing – H.S.G.Ç., K.G., S.A., S.S.A.; Analysis and/or Interpretation – H.S.G.Ç., K.G., S.A., S.S.A.; Literature Search – H.S.G.Ç., K.G., S.A., S.S.A.; Writing Manuscript – H.S.G.Ç., K.G., S.A., S.S.A.; Critical Review – H.S.G.Ç., K.G., S.A., S.S.A.

Declaration of Interests: The authors have no conflicts of interest to declare.

Funding: The authors declared that this study has received no financial support.

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