


Relationship between social


support and COVID-19 anxiety in the elderly


Relación entre el apoyo social y la ansiedad por COVID-19 en los ancianos

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Abstract

Introduction and Background: The COVID-19 pandemic has been causing both physical and mental problems to people's health. The psychological effects are of a wide variety, such as panic disorders, fears, anxiety, depression. Of special interest is an increase of anxiety of people in the community, in the elderly, and people with underlying diseases. Thus, the present study aimed to investigate the relationship between social support and the level of COVID-19 anxiety in the elderly in Fasa. **Methods:** The present study was cross-sectional research conducted on 600 elderly covered by urban and rural family physician clinics after obtaining permission from the Research Deputy and the Ethics Committee of the university through the Press Line program. The research data were collected through demographic information collection form, COVID-19 anxiety measurement questionnaire, and multidimensional scale of perceived social support. They were completed in a self-reporting manner. Data were analyzed in SPSS-23 software. **Results:** The mean age of the elderly was 65.91 ± 4.84 years. Most of the participants (60%) were female. There was a significant negative relationship between anxiety and perceived social support and its components ($p < 0.05$). The results of regression analysis showed that the variables of social support, job, and marital status had a statistically significant relationship with anxiety ($p < 0.05$) and these variables explained 42% of the variance of the COVID-19 anxiety variable in the elderly ($p < 0.05$). **Conclusion:** Strengthening social support can significantly reduce COVID-19 anxiety in the elderly.

Keywords: Social support, Anxiety, COVID-19, Elderly.

Resumen

Introducción y antecedentes: La pandemia de COVID-19 ha estado causando problemas tanto físicos como mentales a la salud de las personas. Los efectos psicológicos son de una amplia variedad, como trastornos de pánico, miedos, ansiedad, depresión. De especial interés es un aumento de la ansiedad de las personas de la comunidad, en personas mayores y en personas con enfermedades de base. Así, el presente estudio tuvo como objetivo investigar la relación entre el apoyo social y el nivel de ansiedad por COVID-19 en los ancianos de Fasa. **Métodos:** El presente estudio fue una investigación transversal realizada en 600 adultos mayores atendidos por consultorios médicos de familia urbanos y rurales, previa autorización del Adjunto de Investigación y del Comité de Ética de la universidad a través del programa Línea Prensa. Los datos de la investigación se recolectaron a través del formulario de recolección de información demográfica, el cuestionario de medición de ansiedad por COVID-19 y la escala multidimensional de apoyo social percibido. Fueron completados de manera autoinformada. Los datos se analizaron en el software SPSS-23. **Resultados:** La edad media de los ancianos fue de $65,91 \pm 4,84$ años. La mayoría de los participantes (60%) eran mujeres. Hubo una relación negativa significativa entre la ansiedad y el apoyo social percibido y sus componentes ($p < 0,05$). Los resultados del análisis de regresión mostraron que las variables de apoyo social, trabajo y estado civil tuvieron relación estadísticamente significativa con la ansiedad ($p < 0,05$) y estas variables explicaron el 42% de la varianza de la variable ansiedad por COVID-19 en los ancianos ($p < 0,05$). **Conclusión:** fortalecer el apoyo social puede reducir significativamente la ansiedad por COVID-19 en los ancianos.

Palabras clave: Apoyo social, Ansiedad, COVID-19, Anciano.

Introduction

Coronaviruses are a large family of viruses that can cause respiratory infections ranging from the common cold to more serious diseases such as measles and mumps. This virus has recently been called COVID-19. The outbreak of the new virus began in December 2020 in Yohan, China¹. Symptoms of this virus range from mild to severe. Signs and symptoms of infection include fever, cough, and difficulty in breathing². Initial studies have shown that people with underlying diseases are at higher risk for complications and mortality caused by COVID-19 disease. About 51% of hospitalized patients suspected of having a new coronavirus suffer other chronic diseases³. Based on the latest meta-analysis study conducted on 51422 patients with COVID-19, the rate of mortality caused by this disease has reached 4.3%⁴. However, most of those who died had previous underlying conditions, such as hypertension, diabetes, or cardiovascular disease, in which their immune systems are weakened. The rate of mortality caused by COVID-19 disease in cardiovascular and diabetic patients was 10.5% and 7.3%, respectively, which has been higher than that in patients with other underlying diseases and this mortality rate in the age group of 60 years and above was also higher than other age groups².

Anxiety is a common symptom in patients with chronic respiratory disorders and it may significantly reduce patients' quality of life. In almost all anxiety measurement cases, it also includes physical cases that can overlap with the symptoms of chronic respiratory disease and side effects of medications⁵. Clinical anxiety affects up to two-thirds of chronic respiratory patients and results in reduced quality of life and reduced physical function⁶. Anxiety is common in COVID-19 and seems to be largely owing to the unknown nature of this virus. Fear of the unknowns reduces the perception of immunity in humans and has always been caused anxiety for humans. Lack of scientific information about COVID-19 also exacerbates anxiety⁷. Stress and anxiety can weaken the immune system and make them vulnerable to diseases such as COVID-19⁸. Owing to reduced self-esteem, movement impairment, and the risk of chronic diseases, the elderly are more prone to anxiety^{9,10}. Based on the studies, the prevalence of anxiety in the elderly is higher than depression and it has been estimated between 3 and 14%¹¹. The evidence indicates that people who receive adequate social support are better able to cope with the problems and have good psychological adjustment. Social protection has been considered as a factor involved in reducing risk-taking against the development of mental disorders. Studies indicate that social support is negatively associated with symptoms of anxiety and depression in normal and clinical individuals¹². The research conducted by Majercsik and Haller also showed that social support and health have a significant impact on anxiety in the elderly¹³.

Social support is one of the determinants of health that refers to the importance of the human social dimension and has attracted increasing attention in recent years. Social support is related to disease and health and has protective impacts on physical health¹⁴. Evidence suggests a reduction

in mortality in people who perceived greater social support¹⁵. The sources and methods of social support are multiple and they vary depending on the cultural, social, and economic conditions of each society. What is important from the point of view of social scientists is the perception of the elderly about the type and level of support they receive from others.

Wills argues that social support is an individual's perception or experience of the extent that others love, care for, respect, and value for him or her, and consider him or her a part of an active social network¹⁶. Researchers have indicated that poor social support from friends and others can affect health status¹⁷. It has also been shown that high levels of social support are associated with improved levels of physical and mental health¹⁸. Another research revealed that social support plays a major role in reducing the risk of mortality in the diabetic elderly¹⁹. Since COVID-19 is a recent disease and it increases the anxiety of people in the community and as elderly and people with underlying diseases are more involved in COVID-19 disease, the present study aimed to investigate the relationship between social support and the level of COVID-19 anxiety in the elderly in Fasa city.

Materials and methods

The present study was an attempt to investigate the relationship between social support and the level of COVID-19 induced anxiety in the elderly. The present study was cross-sectional research conducted through the Press Line program after obtaining permission from the Research Deputy and Ethics Committee of the university (Ethics Committee Code: IR.FUMS.REC.1399.045). The population of the present study included the elderly covered by all urban (47 clinics) and rural (17 clinics) family physician clinics in Fasa. The sample size was estimated at 600 people, who were randomly selected among 20 family physician clinics (15 urban family physicians and 5 rural family physicians) and then included in the study. The desired samples were selected from the list of elderly covered by the selected clinics based on inclusion criteria (people over 60 years, no COVID-19 and no mental illness, the ability to use WhatsApp cyberspace by the person or one of his or her relatives) using a convenience sampling method and with the cooperation of family physician and through the SIB system.

The studied samples were contacted and after providing the necessary explanation on the objectives of the study and obtaining their consent to participate in the study, a WhatsApp group for the elderly or one of their first-degree relatives who were in contact with them was formed. The questionnaires were completed in a self-reporting manner and through the Press Line Program. The questionnaire was completed virtually, and for the elderly who failed to complete the questionnaires online for various reasons, including lack of access to an Android mobile phone and illiteracy, the questionnaires were completed via phone contact.

Demographic information collection form, COVID-19 Anxiety Questionnaire, and Multidimensional Scale of Perceived Social Support was used as research tools in the present study.

Demographic information collection form:

Demographic information collection form includes age, gender, level of education, marital status, physical dependence on others, and job

COVID-19 Anxiety Questionnaire

This questionnaire was developed by Alipour et al.⁸ and includes 18 questions scored on a 4-point Likert scale with options of never, sometimes, most often, and always. It is used to measure the level of COVID-19 anxiety. To evaluate the content validity of the questions, a questionnaire was presented to 5 experienced psychologists. They examined the transparency of the items and the level of relevance of the questionnaire to all aspects of the subject. They also examined the face validity of the questionnaire and confirmed it. They also confirmed its reliability by calculating the Cronbach's alpha coefficient obtained at 0.91.

Multidimensional Scale of Perceived Social Support (MSPSS)

This scale was developed by Zimet et al. (1988) to assess the social support perceived by friends, family, and a significant other in the individual's life²⁰. This scale included 12 items that measure three components of perceived support from family (4 questions), perceived support from a significant other (4 questions), and perceived support from friends (4 questions). All questions on this scale are scored on a five-point Likert scale (strongly agree, agree, disagree, disagree, and strongly disagree). The range of scores on this scale is from 12 to 60²¹. The validity and reliability of this scale were reported at the desirable level by Zimet et al.²⁰ and Salimi et al.²² reported the reliability of this scale using Cronbach's alpha coefficient for the three dimensions of social support received from family, friends, and a significant other in life at 0.86, 0.86 and 0.82, respectively²². Also, in the research conducted by Alipour et al., the reliability of this questionnaire for the overall scale and its three dimensions of social support received from friends, family, and a significant other was calculated at 0.94, 0.89, 0.90, and 0.90, respectively^{23,24}. The collected data were analyzed in SPSS-23 Software. The data were analyzed at two levels of descriptive and inferential statistics. At the level of descriptive statistics, statistical indices such as mean, frequency, standard deviation, and in inferential statistics, Pearson correlation coefficient and linear regression tests were used. The value of $p < 0.05$ was considered significant.

Results

The participants of this study included 600 elderly with a mean age of 65.91 ± 4.84 years. (Table 1) presents other demographic characteristics of the studied elderly.

Table 1. Demographic characteristics of the studied elderly

Variable	Test group		
	f	%	
Gender	Male	240	40
	Female	360	60
Marital status	Single	66	11
	Married	534	89
Physical dependence on others	Yes	35	5.84
	No	565	94.16
Level of education	Illiterate	135	22.5
	Below diploma	259	43.16
	Diploma	177	29.5
	Above diploma	29	4.84
Job	Self-employed	180	30
	Retired	382	63.67
	Unemployed	38	6.33

As shown in Table 2, there is a negative and significant relationship between the variable of anxiety and perceived social support and its components ($p < 0.05$).

Table 2. Pearson correlation coefficient between anxiety variable and perceived social support and its components in the studied elderly

Variable	Anxiety	Perceived social support	Support of family	Support of a significant other	Support of friends
Anxiety	1				
Perceived social support	** -0.54	1	0.52	*0.43	*0.61
Support of family	** -0.58	0.39	1	*0.76	**0.45
Support of a significant other	** -0.47	0.42	**0.72	1	0.59
Support of friends	** -0.56	0.38	*0.51	*0.39	1

The results of regression analysis revealed that the variables of social support, job, and marital status were statistically significantly associated with the level of anxiety ($p < 0.05$) and these variables explain 42% of the variance of the COVID-19 disease anxiety variable in the elderly (Table 3).

Table 3. Linear regression analysis of variables related to anxiety in the studied elderly

Variables	Beta	S.E	B	P	R ²
Gender	0.11	0.55	0.14	0.69	0.42
marital status	0.17	0.85	0.69	* 0.03	
Job	0.124	0.062	0.14	* 0.017	
Level of education	0.037	0.35	0.31	0.36	
social support	-0.73	0.41	-0.39	* 0.012	

Discussion

The present study aimed to investigate the relationship between social support and COVID-19 disease anxiety in the elderly in Fasa. The results of the present study revealed a significant negative relationship between social support and COVID-19 anxiety. This research result is in line with the results of Majercsik and Haller²⁵. Alipour et al. reported that the prevalence of anxiety in the elderly was at 40%²⁶, and Riahi et al. showed that social support and its dimensions have a significant relationship with mental health in the elderly²⁷. While Seyfzadeh showed that the social health of the elderly who enjoy a high level of social support is more than other elderly²⁸. Thus, social support has a strong association with the dimensions of mental and social health. Social support also reduces the effect of stress by increasing a correct understanding of stressful events and minimizes the effects of an unpleasant experience. It also creates reciprocal commitments in which the person feels loved and cared for, self-esteem, and value, and these cases are directly associated with health outcomes.

In the current critical situation caused by the outbreak of COVID-19 disease, anxiety is the most fundamental factor that will negatively affect the mental health of the community, especially the elderly. It can be reduced by increasing social support. Based on the research results, the most social support that the elderly have received is family support. These results are confirmed by Mohammadi, et al research²⁹. In explaining the results of the present study, it can be stated that the family is the most important source of support and interpersonal relationships that provide adequate support to control and reduce stress and anxiety in the elderly. Also, the presence of others can create a sense of life satisfaction by creating intimacy and security³⁰. Social support helps people feel safe, secure, and belonging in stressful situations. People who consider their social relationships to be inadequate are at greater risk of developing symptoms of mental disorders³¹.

The elderly who receives adequate support from friends and family are more willing to talk about solving their problems and issues, which plays a role in reducing anxiety. In this regard, Richard et al. stated that verbal communication and conversation can reduce anxiety and stress³². Also, the results of regression analysis showed that the variables of social support, job, and marital status explain 42% of the variance of the COVID-19 anxiety variable in the elderly. The elderly who need more social support may lose this support due to restrictions imposed by the outbreak of the COVID-19 virus owing to reduced contact with relatives and friends. According to Sood, restrictions on social relationships might cause anxiety and depression in people³³.

In addition, a study in China was shown on more than 7000 students during the outbreak of COVID-19, that about 24.9% of people reported symptoms of severe anxiety and the rest reported mild anxiety. One of the most important reasons for students' anxiety was a reduction in social communications and job loss. Accordingly, having a job and income and living with the family was one of the most

important factors in reducing anxiety^{34,35}. Zhang et al., argue that many quarantined people experience more difficult mental conditions due to other problems, such as losing their jobs and the economic problems associated with it³⁶. Zarabadipour et al., in Qazvin, investigated the psychological impacts of COVID-19 disease revealing that most of the participants in the study experienced mild stress and anxiety. However, they did not observe a statistically significant relationship between marital status and level of stress³⁷, which is inconsistent with the results of the present study. Meanwhile, Bijani, et al. reported that married and divorced people experience higher stress than single people³⁸. Anxiety is a common phenomenon during the COVID-19 epidemic. Interventions and teaching self-care and anxiety reduction skills for the elderly and families and the social environment can be useful in preventing COVID-19 and the anxiety caused by it. Thus, due to the importance of the elderly status in society, it is recommended to provide interventions to promote social support for the elderly³⁹.

Conclusion

In general, the results of the present research revealed that fear and anxiety caused by COVID-19 are destructive and can result in mental disorders and anxiety in the elderly. This anxiety can be eliminated, but it can be reduced scientifically and logically. People around the elderly, especially their families, should have a right understanding of the elderly, and strengthening social support can significantly reduce the COVID-19 anxiety in the elderly.

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Conflict of interest

The authors declare no conflict of interest.

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