

The relationship between the quality of life and social well-being among the families of COVID-19 patients: a cross-sectional study

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Abstract

Social well-being is one of the essential aspects of well-being that is highly connected to psychological health and has been challenged during the COVID-19 pandemic. In this respect, the present study aimed to investigate the relationship between the quality of life and social well-being among the families of COVID-19 patients. In this cross-sectional study, a total of 300 people were selected by simple random sampling among the families of COVID-19 patients who were admitted to Shahid Mostafa Khomeini Hospital in Ilam, Iran. Also, data were collected using Keyes's social well-being questionnaire and the World Health Organization quality of life questionnaire, which were finally analyzed by Stata version 12 software and linear regression models. The findings showed the quality of life of divorced people was lower than that of single people. People with university education also had a higher quality of life than people with undergraduate education. Besides, a significant relationship was observed between age, all subscales of social well-being, and quality of life. It seems that the COVID-19 crisis has been a challenge to social well-being and can threaten people's psychological health. Therefore, the emphasis should be necessarily placed on self-care, maintaining social commitments, and asking for help with mental and emotional disturbances during this pandemic.

Introduction

Family is the first social community wherein a person enters and begins their life in this world. After the hereditary factor, family is the first shaper of human behavior,¹ and the producer of meaning and concept.² Family is also a dynamic social system with its own structure, components, and rules and a unique and important role among all institutions.³ Generally, this social system is a global phenomenon ubiquitous in the world since it responds to common human needs. Therefore, family has existed throughout human geography and history.⁴ Health is an issue in all cultures, and its definition depends on the common sense of people about their health and culture.⁵ It can be said that health and placidity are among the most fundamental topics on which human life has been based, and the growth of society relies on promoting all aspects of health, including physical, mental, and social.⁶ Since people in a society are involved in a network of complex relationships and various social structures, they always face social conflicts.⁷ These social conflicts can be discussed at both the micro and macro levels. The research at the micro level deals with one of the most important factors affecting social health. Undoubtedly, this factor can facilitate the elimination of many social diseases.⁸

On the other hand, the quality of life of families has an important impact on the social health of individuals.⁹ Due to the development and advancement of technology, which focuses on the quantitative dimension of human life and neglects its quality aspects, the quality of life has been considered by humanities thinkers over the past few decades in western countries.¹⁰ Quality of life is one of the main pillars of development and one of the basic components for the prosperity and improvement of living conditions.¹¹ In late December 2019, a series of unexplained cases of pneumonia were reported in Wuhan, China. The government and health researchers in China took immediate action to control the pandemic. On January 12, 2020, the World Health Organization temporarily named the new virus COVID-19.¹² The global spread of this disease and the application of classic forms of disease control through quarantine caused a decrease in individual quality of life due to the excessive reduction of mobility, accessibility to health services, social interaction, and mental well-being.¹³ Considering COVID-19, with all its difficulties for individuals, and since it is growing and spreading in the current society, this study addresses the relationship between quality of life and social health dimensions among the families of COVID-19 patients.

Materials and Methods

Study design

This study is a cross-sectional analytical study conducted from March to June 2020 at Mostafa Khomeini Hospital in Ilam, Iran. The statistical population of this study consisted of the families of COVID-19 patients admitted to Shahid Mostafa Khomeini Hospital who entered the project with informed consent. A total of 300 participants were selected by simple random sampling. Data collection tools included Keyes's social well-being questionnaire (KSWBQ) and the World Health Organization quality of life questionnaire (WHOQOL).

Instruments

Keyes's social well-being questionnaire

KSWBQ includes 20 questions and examines 5 subscales (*i.e.*, social integration, social contribution, social cohesion, social acceptance, and social actualization). Its validity and reliability were obtained at 82% by Keyes himself. Hashemi *et al.* used internal consistency to evaluate the validity of this tool. The reliability of this questionnaire in Hashemi's research had a Cronbach's α of 0.78 for the whole scale. This questionnaire is scored on a 5-point Likert scale [from never (0) to always (5)], *i.e.*, the maximum total score of 100. A score between 20 and 46 stands for a low level of social well-being. If the calculated score is between 47 and 74, the level of social well-being is moderate, and it should be strengthened. A score between 75 and 100 shows a high level of social well-being, and thus this process must be continued.¹⁴

World Health Organization quality of life questionnaire

WHOQOL includes 26 items to measure a person's general quality of life. This questionnaire has 4 subscales, namely physical health, psychological health, social relationships, and environment, with an overall score of 0-100. A higher score indicates a higher quality of life. A study was conducted on 1167 people in Tehran (Iran) to evaluate the validity and reliability of this questionnaire. In this study, participants were divided into 2 groups with chronic and non-chronic diseases. Test reliability for sub-

scales was obtained at 0.77, 0.77, 0.75, and 0.84 for physical health, psychological health, social relationships, and environment, respectively.¹⁵

Statistical analysis and ethical considerations

The data were analyzed by Stata version 12 software (Stata, College Station, TX, USA) using linear regression models. It should be noted that during the study, all ethical considerations (such as people's dignity and clear description of the research objectives) were followed. The code of ethics (IR.MEDILAM.REC.1399.025) was received from the ethics committee of Ilam University of Medical Sciences.

Results

In this study, 57% of the sample were male (171) and 43% were female (129). The number of married people was 147 (49%), and the rest were single or divorced. The number of people with a university education was 126 (42%), and the number of people who had formal and acceptable economic activities, *i.e.*, employed or self-employed, was 118 (39.4%) (Table 1). According to the results, the mean scores of total quality of life and total social health were 43.31 and 51.64, respectively. Other scores related to the subscales are listed in Table 2.

In the multivariate analysis, age and types of social health subscales showed a significant relationship with quality of life. Although the average quality of life increased by 0.04 units for each year of age of the participants in the study, the overall health score was removed from the final data analysis in the final model to prevent co-linearity (Table 3).

Discussion

This study aimed to investigate the relationship between quality of life and social well-being among the families of COVID-19 patients at Shahid Mostafa Khomeini Hospital in Ilam, Iran. Health is part of the human capital of any society.¹⁶ From an individual perspective, the health factor is one of the main prerequisites of employment, economy, and social activity for human beings in all

Table 1. Demographic characteristics of participants.

Variables	n (%)
Gender	
Male	171 (57)
Female	129 (43)
Marital status	
Single	86 (28.7)
Married	147 (49)
Divorced	67 (22.3)
Education level	
High school	87 (29)
Diploma	87 (29)
University degree	126 (42)
Career	
House keeper	69 (23)
Student	58 (19.3)
Unemployed	55 (18.3)
Employed	59 (19.7)
Self-employed	59 (19.7)

societies.¹⁷ Health, from a psychological and social aspect, also affects issues such as people's conformity to social norms and their understanding of society, as well as determining the quality of a society's workforce.¹⁸ Social well-being means that an individual feels that a part of society belongs to them and that they are involved in and supported by society.²

A significant relationship between social health and quality of life indicates the direct effect of a sense of love in society on the quality of people's physical and psychological lives. Thus, we hope that increasing social support, creating relevant factors, and involving individuals in social benefits and harms will lead to a rise in the quality of life and, consequently, personal satisfaction.¹⁹ A strong relationship between social well-being and the psychological dimension of quality of life can indicate the importance of mental health issues and a sense of satisfaction, raising social health. Therefore, it can be hypothesized that with increased happiness and a sense of satisfaction among people, they will have higher social well-being.⁷ The results showed that the average quality of life score decreased by 0.33 units per year of age. The

average quality of life was about 5.5 units lower for divorced individuals than for single individuals. Also, the average quality of life for people with university degrees was about 5.18 units higher than that for people with at least high school degrees. On the other hand, it was found that all demographic variables and all subscales related to social health and the overall social health score had a significant relationship with quality of life. That is to say, for one unit increase in total social health score, the average quality of life increased by 0.81 units, or an increase in the social cohesion score by one unit led to a rise in the average quality of life by 5.52 units. Based on the multivariate analysis, age and all of the social well-being subscales showed a significant relationship with quality of life. The COVID-19 pandemic has led to social isolation, resulting in poor social health. In fact, the COVID-19 pandemic has been a social well-being challenge that has reduced the quality of life for people and families. Given that communication affects physical health, psychological health, and the risk of death, feeling connected and supported is more critical than ever among the families of these patients. In the pandemic era, modern tools and technical resources, good old-fashioned phone calls, walks, and even greeting cards and letter writing can be helpful and affect the physical and psychological health of the patient and their family, as well as improving the overall quality of life.^{13,20}

Table 2. Mean and standard deviation of age, total quality of life score, and social well-being subscales scores.

Variables	M (SD)
Age	43.31 (0.89)
Quality of life (total score)	29.39 (1.11)
Social actualization	10.54 (0.23)
Social cohesion	7.55 (0.18)
Social integration	7.83 (0.18)
Social acceptance	12.47 (0.27)
Social contribution	12.61 (0.29)

M, mean; SD, standard deviation.

Practical implications and future directions

As the quality of life continually improves, the psychological damage, frustration, confusion, futility, and dissatisfaction with life will decrease. Low quality of life among people in a society can be a factor in abnormal social behaviors. Social well-being, as one of the dimensions of human health, has an important role in the interactions of the social life of every human being. To carry out effective planning and policies to improve the quality of life of patients, proper knowledge about social well-being and its dimen-

Table 3. The regression model summary of factors affecting the quality of life in the families of COVID-19 patients.

Variables	95% CI with lower and upper limits	SD	p
Age	0.04 (0.02, 0.06)	0.01	<0.001
Gender			
Male	1	-	-
Female	0.41 (4.53, 3.72)	2.1	0.85
Marital status			
Single	1	-	-
Married	0.34 (-0.26, 0.93)	0.30	0.27
Divorced	-0.16 (-0.85, 0.53)	0.35	0.65
Education level			
High school	1	-	-
Diploma	0.10 (-0.56, 0.76)	0.33	0.76
University degree	0.06 (-0.56, 0.67)	0.31	0.85
Career			
House keeper	1	-	-
Student	0.81 (5.52, 7.13)	3.21	0.81
Unemployed	1.39 (7.81, 5.03)	3.26	0.67
Employed	1.33 (4.97, 7.63)	3.21	0.68
Self-employed	1.18 (5.11, 7.48)	3.21	0.71
Social well-being			
Social actualization	0.57 (0.47, 0.67)	0.05	<0.001
Social cohesion	0.77 (0.52, 0.99)	0.12	<0.001
Social integration	1.63 (1.37, 1.88)	0.13	<0.001
Social acceptance	0.86 (0.72, 1)	0.07	<0.001
Social contribution	1.01 (0.86, 1.15)	0.07	<0.001

CI, confidence interval; SD, standard deviation.

sions, benefits, and functions seems necessary. Social well-being is our ability to build meaningful relationships with others, including family members and friends, enjoy positive interactions, and adapt to different social situations. During the COVID-19 pandemic, there has been a greater focus on the devastating effects of mental illness. One aspect of well-being that is highly related to mental health is social well-being, which has been highly challenged during the pandemic. Therefore, it is vital to emphasize self-care such as proper diet, adequate exercise, and learning to manage stress.

Also, playing with children, maintaining social commitments, and finding something in common virtually will be very effective for social well-being. Therefore, future studies should address the effects of these cases and their ways on individual and social well-being during the COVID-19 pandemic.

Limitations

This study has some limitations. The biggest limitations of this study are the cross-sectional nature of the data collection and the low statistical power, which severely affects the accuracy of the results and their generalizability. Another limitation is the increased chance of recall bias in the study using self-reported data. Therefore, future studies should investigate the potential role of other confounders, such as the clinical status of patients, while using the longitudinal study design and interviews as a data collection method.

Conclusions

Given that social well-being is affected by distance and isolation in the home, and on the other hand, it is one of the aspects of quality of life that is related to mental health, COVID-19 is a social health challenge and can be considered a threat to mental health. Therefore, emphasizing self-care, maintaining social commitments, finding something in common, and finally asking for help in cases of mental and emotional disturbance are very important in the pandemic period.

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