

The Relationship between COVID-19 Fear and Anxiety with the Quality of Life of Students in Sulaymaniyah, Iraq

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Abstract

Background: The outbreak of the COVID-19 epidemic led to mental disorders and a negative impact on people's quality of life. Due to the closure of universities and the holding of classes virtually, students experienced a great deal of fear and anxiety.

Objective: The aim of this study was to investigate the relationship between fear and anxiety and students' quality of life during the COVID-19 pandemic.

Method: In this descriptive correlational study, 304 students in Sulaymaniyah, Iraq in February and March 2021 were selected by convenience sampling method and entered into the study. Data were collected using sociodemographic form, fear of COVID-19 scale (FCV-19), Corona disease anxiety scale (CDAS), and COVID-19-impact on quality of life (COV19-QOL) scale.

Results: The mean age of the participants was 20.61±3.53 years. Students had high levels of fear and moderate anxiety toward COVID-19, and this pandemic had a moderate effect on their quality of life. The mean score of all these variables in girls was significantly higher than in boys. There was a relationship between quality of life and fear and anxiety, so with increasing 1 point in the quality of life, the score of fear and anxiety changed by 0.27 and 0.35 points, respectively.

Conclusion: There is a relationship between fear and anxiety and students' quality of life. Providing training classes on anxiety and fear control can improve their quality of life.

Keywords: Fear, Anxiety, Quality of life, COVID-19, Student.

Introduction

COVID-19 was first reported in China in late December 2019 and before long, it infected other countries in the world and became a global pandemic.¹ The first case of COVID-19 in the Kurdistan Region was reported on March 1, 2020, and people and authorities in the region are still battling this disease.²

In addition to the risk of death from the new virus, COVID-19 imposes an intolerable burden on both governments and societies.³ As a result of the rapid spread of COVID-19, lack of effective treatments, and high COVID-19 mortality rates, people are more vulnerable to anxiety, fear, and mental disorders during the COVID-19

pandemic.⁴⁻⁶ Risk of catching the virus, fear of losing loved ones, shortage of effective treatments, isolation at home, and loss of job during the pandemic have made people prone to fear, mental problems, and even suicide.^{7,8} The prevalence of any contagious disease is accompanied by anxiety, fear, stress, and other mental problems.^{9,10} Similar to previous outbreaks, including those of SARS and MERS, people experience PTSD and higher levels of fear and anxiety during the COVID-19 pandemic.^{11,12} These symptoms have been observed during the COVID-19 pandemic; for example, it was found in a previous study that about 24.9% of the participant students had experienced fear of COVID-19.³ When fear of COVID-19

becomes excessive, it can lead to personal (e.g. phobia) and social (e.g. panic buying) problems.¹³

Various studies have shown that more than half of students report depression and anxiety symptoms during the COVID-19 pandemic and that the negative effects of COVID-19 may be worsened by fear and anxiety. Because health measures are mainly focused on the physical aspects of COVID-19 prevention and treatment,^{14,15} unfortunately, the psychosocial aspects of the disease have not been studied well.

All these adverse consequences can reduce the quality of life (QOL).¹⁶ QOL refers to one's perception of life and personal goals, values, standards, and interests.¹⁷ Like other groups in society, students have been affected by COVID-19 and its negative consequences.¹⁸ During the pandemic, the QOL of students has been heavily affected by their disappointment due to loss of normal routine of studying and fear of getting the virus in high-risk areas.¹⁶ The rapid transmission of COVID-19, social distancing, quarantine, and delay in the opening of schools and universities all over the world can reduce the QOL of students by affecting their mental health.³

Objectives

Based on what was mentioned above, and considering the current conditions, the main goal of the present study is to examine the impact of COVID-19 fear and anxiety on the QOL of students in Sulaymaniyah, Iraq.

Methods

Design and sample

This is a descriptive correlational study performed on students in Sulaimaniyah, Iraq, in February and March 2021. Students were selected from the following four universities: Komar university of Sciences and Technology, Sulaimanyah University, University of Human Development, and Polytechnic University of Sulaimaniyah. Sample size was calculated based on the following formula: $N = \left(\frac{Z_{1-\alpha/2} + Z_{1-\beta}}{0.5 \ln \frac{1+r}{1-r}} \right)^2 + 3$, according to a confidence interval of 95% and a correlation coefficient of $r=0.3$. The studied samples included 304 students who were recruited through the convenience sampling method. Inclusion criteria included a willingness to

participate in the study, and study in the universities of Sulaimaniyah. Incomplete questionnaires were excluded from the study.

Sociodemographic form

This form included information such as age, gender and comorbidity (underlying diseases).

Fear of COVID-19 Scale

The Fear of COVID-19 scale (FCV-19) was designed by Ahorsu et al. (2020) and includes seven items (e.g. "I cannot sleep because I am worried about getting COVID-19"), scored on a 5-point Likert response ranging from 1 (strongly disagree) to 5 (strongly agree) and gas English and Persian original version. The possible scores of this scale vary between 7 and 35 and a higher score presents greater fear of COVID-19.¹⁹ Internal consistency (Cronbach alpha = 0.82) and stability (ICC = 0.72) of the Persian version of this scale has been confirmed.

Corona Disease Anxiety Scale (CDAS)

The Corona Disease Anxiety Scale (CDAS) was also designed by Alipour et al. (2020) in Iran.²⁰ This scale is made up of 18 items (e.g. "Thinking about Covid-19 makes me anxious"), with 4-point Likert response ranging from 1 (never) to 4 (often). A higher score indicates more anxiety. In this study, after obtaining permission from the tool designer, we translated the Persian version into Kurdish and used it. Cronbach's alpha coefficient of the Persian version was 0.919.

COVID-19-Impact on Quality of Life (COV19-QoL) scale

The COV19-QoL scale has been designed by Repišti et al. (2020) (21), which has been translated into Persian and its psychometric properties have been reported. The COV19-QoL scale has 6 items with a 5-point Likert answer (strongly agree to strongly disagree) that a higher score indicates the greater impact of COVID-19 on life.

Data analysis

Data analysis was performed with SPSS (version 16.0, SPSS Inc, Chicago, IL, USA). Frequency, percentage, mean, and standard deviation were used to describe the sociodemographic variables. Shapiro-Wilk tests were used to assess the normality of all continuous data. Independent t-test and one-way analysis of variance were used to compare quantitative data in two groups and more

than two groups, respectively, and the Chi-square test was used to examine the relationship between qualitative data. Pearson correlation used to examine the relationship between quantitative data and stepwise multiple regression will be used to determine important predictors of COVID-19-QoL. A "P-value" less than 0.05 was considered significant.

Ethical considerations

The study was conducted in accordance with the Declaration of Helsinki. Institutional Review Board approval was obtained. All students signed an informed consent form.

Results

The participants were 304 students with a mean age of 20.61 ± 3.53 years. Of the participants, 61.8% were women. The mean age of boys was higher than girls (21.31 ± 4.72 vs.

20.07 ± 2.70 , $p < 0.004$). Twenty-four students (7.9%) had comorbidity. Because of the limited demographic data, no tabular section was designed for this section.

When the distribution of the scores from the scales was examined, it was seen that the mean total score obtained from the FCV was 14.34 ± 6.89 (out of 35), the mean score obtained from the CDAS was 30.55 ± 10.71 (out of 72), and the mean score obtained from the COVID19-QoL was 14.81 ± 6.46 (out of 30). Accordingly, students had severe fear and moderate anxiety, and their quality of life was moderately affected by this pandemic. Girls had more fear ($p = 0.001$) and anxiety ($p = 0.001$) than boys and their quality of life (0.038) was more affected. There was also a significant relationship between quality of life scores with anxiety and fear of COVID-19 so that with increasing a score of anxiety and fear of COVID-19, quality of life scores increased by 0.27 ($p < 0.0001$) and 0.35 ($p < 0.0002$), respectively (Table-1).

Table-1. Relationship between quality of life and anxiety, fear and demographic variables

Variable	Estimate	SE	P-value
Gender			
Female	1.510	0.464	0.001
Male	-*	-	-
Comorbidity			
Yes	0.685	0.815	0.401
No	-	-	-
Self-medication			
Yes	-0.408	0.527	0.439
No	-	-	-
Age	0.002	0.063	0.976
Anxiety	0.269	0.040	<0.0001
Fear	0.346	0.063	<0.0001

*Reference category

Discussion

The aim of this study was to investigate the relationship between fear and anxiety and students' quality of life in the Covid-19 epidemic. In our study, it was found that there is a relationship between fear and anxiety caused by COVID-19 and students' quality of life, so that with increasing fear and anxiety, quality of life decreased, which is consistent with the results of a study by Parisod et al.²² In this regard, the findings of the study by Maflib et

al., Which was conducted to assess the quality of life and social support among students during the COVID-19 epidemic, demonstrated that anxiety and stress caused by COVID-19 had a significant negative correlation with students' quality of life score.¹⁶ Also, the results of a study on the general population of Saudi Arabia showed that fear of COVID-19 reduces mental well-being and quality of life.²³ Given that the COVID-19 epidemic has affected all people regardless of gender, occupation, and age group,

it can be expected that the psychological distress created during this period will reduce various aspects of people's quality of life.

The results showed that the mean score of fear and anxiety of covid-19 and quality of life in girls was higher than in boys, which showed that girls have more fear and anxiety than boys and their quality of life was more affected by Covid-19 than boys. The results of a study conducted in Cuba showed that the rate of fear of Covid-19 was higher in women than men, which is consistent with the results of the present study.²⁴ Many studies in the literature have reported similar results.²⁵⁻²⁷ Various previous studies on the general population have all shown that fear of COVID-19 is greater in women than men.^{28,29} The reason for this finding can be attributed to the high level of stress in women,³⁰ it is also easier for women to express their fears because of their social gender roles, while men may not express their fears because of their strong and courageous roles.³¹ Overfield believes that the difference between men and women is because women are more prone to stress than men.³² The findings of a study conducted on students at a Saudi university showed that male and female students were not significantly different in terms of fear and anxiety.²³ Since high stress and anxiety reduce the quality of life, it can be expected that in epidemics, the quality of life of people, especially vulnerable populations, will decrease. One of the most important weaknesses of this study was the lack of detailed demographic information. The novelty of this study and the focus on a specific group of the Sulaimaniyah community who had experienced several COVID-19 waves was one of the strengths of this study.

Conclusions

Findings provided a clear picture of the state of fear, anxiety and the effect of COVID-19 on students' quality of life, and accordingly, their fear was high and their anxiety was moderate. The COVID-19 pandemic also had an average effect on the quality of life of these students. Accordingly, it is necessary to provide psychological counseling programs and personal protection workshops to reduce the psychological distress of these students.

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Competing interests

The authors declare that they have no competing interests.

Abbreviations

Coronavirus disease 2019: COVID-19;
Severe acute respiratory syndrome: SARS;
World Health Organization: WHO;
Quality Of Life: QOL

Authors' contributions

All authors read and approved the final manuscript. All authors take responsibility for the integrity of the data and the accuracy of the data analysis.

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Availability of data and materials

The data used in this study are available from the corresponding author on request.

Ethics approval and consent to participate

The study was conducted in accordance with the Declaration of Helsinki. Institutional Review Board approval was obtained. All participants signed an informed consent form.

Consent for publication

By submitting this document, the authors declare their consent for the final accepted version of the manuscript to be considered for publication.

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