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The Effect of COVID-19 on Quality of Life: A Community-Based Study in Türkiye

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Original Research

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Abstract

Objective: The purpose of this study was to analyze the impact of COVID-19 on the quality of life of individuals who received psychological treatment compared to those who did not.
Methods: The survey method was used to collect data. The questionnaire consisted of questions that elicit the personal characteristics of the participants and the COVID-19–Impact on Quality of Life Scale (COV19-QoL). A total of 480 individuals aged 18 years or older were administered the questionnaires in Türkiye. The data obtained from the survey was analyzed using the SPSS 26 software package.
Results: The results showed that the effect of COVID-19 on quality of life differed significantly depending on whether the participants received psychological treatment or not.
Conclusions: It was concluded that individuals who received psychological treatment had a higher impact of COVID-19 on their quality of life. The findings are discussed concerning the relevant literature on theoretical and practical implications.

COVID-19, which first appeared in Wuhan, China and affected the entire world, was declared a pandemic on March 11, 2020. The pandemic, which spread in a short time and caused great social, economic, and psychological destruction and death, is recognized as one of the largest pandemics of the past and present.[1] According to Gates,[2] the COVID-19 pandemic is expected to become one of the major public health issues of the 21st century. Türkiye managed the crisis relatively well, lagging behind many countries in the number of cases and deaths in the acute phase.[3] However, the pandemic not only created a risk of infection-related mortality but also led to unbearable psychological pressure on the entire community,[4,5,6] including health care workers.[6,7,8] The effects of the pandemic persisted beyond the end of the crisis.[9,10] Psychological resilience, social support, and chronic illness may contribute to the negative effects in the post-pandemic period.[9,10,11,12]

The COVID-19 virus causes health issues in 2 ways. The first is the physical health problems caused directly by the virus, while the second category comprises mental health problems such as anxiety, panic, and worry that develop due to the pandemic. COVID-19 should be regarded not only as a medical health crisis but also as a mental health emergency. Infectious diseases not only impact individuals' physical health but also the psychological health and well-being of the entire population, whether infected or not.

The COVID-19 pandemic has caused not only mental and physical but also spiritual problems. A study conducted in Mexico found that following extensive media coverage of the flu pandemic, people's perception of risk and fear regarding uncertainties rose significantly, resulting in a considerable decrease in their quality of life.[13]

According to Wu et al.,[12] between 10% and 18% of participants reported symptoms related to post-traumatic stress disorder (PTSD), anxiety, and depression in their research conducted after past pandemics. The intensity of these symptoms correlates with the perception of high-life threats and inadequate emotional support.[12]

In order to control the pandemic, decisions and practices such as border closures, social isolation and restrictions, transportation restrictions, remote continuation of educational services, and restrictions on commercial, cultural, and sporting activities were implemented on a global scale.[14] The negative impact of these practices on quality of life and the significant increase in mental disorders such as depression and anxiety have been highlighted by research.[15] In addition to the decrease in quality of life due to COVID-19, it has been suggested that mental health problems, including depression and anxiety, may persist for many years after the pandemic.[16] It is therefore important to assess the impact of COVID-19 on the quality of life of people with mental health problems.

Every individual has different physical and emotional characteristics. As a result of these individual differences, people show different behavioral responses in coping with the adversities they encounter in life. While some people surrender to the difficulties they face without

struggling, others struggle with problems more severely.[17] In particular, people with low psychological resilience are known to struggle with psychological problems such as anxiety and depression during the pandemic.[18] Uncertainty after the pandemic, fear of losing relatives, staying away from family, the continuous increase in the number of deaths and cases, the anxiety it caused in society through the media, and lockdowns due to quarantine practices brought anxiety disorders, hopelessness, fear, and helplessness.[19] Studies have reported that problems such as anxiety, coronaphobia, depression, anxiety, PTSD, and fear of death increased after COVID-19.[20] This situation continued after the pandemic, revealing many psychological problems such as PTSD.[21] Anger crises and suicide attempts during the pandemic show that some individuals cannot recover.[22] This situation has highlighted the need for psychosocial support for those whose physical and mental health has deteriorated. Psychological support aims to reveal the strengths of individuals, to support them in this direction, to see their potential by rediscovering themselves, and to adapt more quickly to social life by improving their sense of self-confidence.

Given that crises present both opportunities and threats, there is a need for scientific evidence to be gathered so that the lessons on health service needs and health policies learned from this pandemic can be used for future planning purposes by countries.[3] As a result of all this, this study discusses the effect of COVID-19 on the quality of life in those receiving psychological treatment and those not receiving psychological treatment. The study also examined the effect of COVID-19 on quality of life in terms of chronic illness, regular medication use, having COVID-19, and losing a relative to COVID-19. The selection of methodologies and measurement instruments in this research was critically informed by a comprehensive review of the extant literature on the impacts of infectious disease outbreaks on mental health and quality of life. Integral to our study design was the adaptation of the COVID-19–Impact on Quality of Life Scale (COV19-QoL), a decision underpinned by the scale's initial development and application as detailed in the works of Repišti et al.[23] This scale's robust psychometric properties highlighted the necessity for a culturally and linguistically adapted tool that could effectively measure the pandemic's impact on quality of life within the Turkish context, as executed by Ökten and Gezgin Yazıcı.[24]

Moreover, the extensive body of literature documenting varied responses to pandemic-related stressors influenced our methodological approach, particularly the choice of a mixed-methods design. This was predicated on findings from studies such as those by Wu et al.[12] and Ferreira et al.,[15] which elucidated the complex interplay between psychological well-being and pandemic stressors over time. These studies advocated for methodologies that not only quantify the impact but also explore the qualitative nuances of lived experiences during health crises.

The adoption of specific statistical analyses, such as t-tests, was also a direct outcome of reviewing prior research that utilized similar statistical methods to discern differences between distinct groups affected by health emergencies. This alignment with scholarly precedents ensures that our analytical strategies are both appropriate and justified, thereby enhancing the reliability and validity of our findings.

This literature review thus serves not merely as a summary of previous works but as a critical foundation that shapes and validates the research methodology and tools employed in our study, ensuring that they are deeply rooted in established scientific principles and previous empirical findings.

As we transition from understanding the broad impacts of COVID-19 on public health and individual psychological well-being, we now focus on the specific methodologies employed in this study to explore these effects in detail. The following section outlines our research design, sampling methods, and the analytical approaches that facilitate a direct examination of COVID-19's impact on the quality of life among different populations within Türkiye.

Methods

Aim of the Research and Design

The study utilizes a descriptive, cross-sectional design to analyze the impact of COVID-19 on the quality of life of individuals who receive psychological treatment, have chronic illnesses, take regular medication, contracted COVID-19, or lost a relative due to COVID-19. To address these objectives, the following research questions will be answered:

RQ1: Does COVID-19 have an effect on quality of life according to psychological treatment status?

RQ2: Does COVID-19 have an effect on quality of life according to having a chronic disease?

RQ3: Does COVID-19 have an effect on quality of life according to regular medication use?

RQ4: Does COVID-19 have an effect on quality of life according to having had COVID-19?

RQ5: Does COVID-19 have an effect on quality of life according to having lost a relative to COVID-19?

Research Sample

The study recruited 480 participants from Türkiye, both those who received psychological treatment and those who did not. The study was conducted among participants over the age of 18 in Türkiye by using the non-probability sampling method (voluntary sampling). In research representing large populations, determining the sample size is crucial for the reliability and validity of the study. A common reference for determining the ideal sample size is Cochran's[25] sample size formula. This formula is particularly used for large populations, typically considering a 95% confidence interval and a 5% margin of error. According to Cochran's formula, a sample size of approximately 384 is generally considered sufficient for large populations.[25] This is a valid starting point for populations exceeding 10 000 individuals. However, increasing the sample size can positively impact the reliability of the results. In this research, a sample size of 480 exceeds Cochran's suggested minimum, thus it can be considered sufficient for representing a broad population. Especially in social sciences and market research, a sample of this size is often adequate for achieving statistically reliable and representative results. Within the framework of the inclusion criteria determined in accordance with the purpose of the research, data were collected from individuals who lived in Türkiye. The inclusion criteria were: (1) age above 18 and (2) ability to comprehend the information provided in the informed consent and give consent by signing

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it. The exclusion criteria were: (1) age below 18 and (2) having moderate or severe intellectual disability.

The research sample consists of people selected through purposive and convenience sampling methods, which are non-probability sampling methods. This decision was driven by several pragmatic considerations intrinsic to the nature and context of the research. First, voluntary sampling allows for rapid collection of data, which is crucial in a swiftly evolving public health crisis such as the COVID-19 pandemic. This approach enables the participation of individuals who are readily accessible and willing to share their experiences, thereby ensuring the timely gathering and analysis of data critical to immediate public health responses.

However, the use of non-probability sampling has implications for the generalizability of the findings. Since participants self-select to be part of the study, they may not be representative of the broader population. This self-selection bias might limit the extent to which the results can be generalized to other settings or groups. Individuals who choose to participate might differ significantly from those who do not, particularly in characteristics related to the study's focus, such as their psychological health, exposure to the virus, or the intensity of the pandemic's impact on their life.

Given the study's reliance on voluntary sampling, it is crucial to interpret the findings with caution. While the results provide valuable insights into the experiences of those impacted by COVID-19, they should not be assumed to apply universally to all populations. The insights garnered should be viewed as indicative rather than definitive, highlighting trends and experiences among a specific subgroup of the population that elected to participate.

To mitigate some of these limitations and enhance the robustness of future research, a mixed-methods approach that includes both qualitative and quantitative elements is recommended. This would allow for a more in-depth exploration of how specific characteristics influence experiences and outcomes related to COVID-19, thereby providing a more nuanced understanding of its impacts across different subpopulations.

In order to determine the sample size, tables of the ideal sample size accepted in social science research were used. Therefore, 1,000 people were invited to participate in the research. But 480 valid data were obtained from the questionnaire, which was filled out voluntarily within the framework of the above-mentioned inclusion criteria and in accordance with the purpose and scope of the research.

The participants in the study had a mean age of 24.83 ± 5.11, with 55.4% of them identifying as female. Out of all the participants in the study, 70.0% were single, 16.9% had chronic illnesses, and 21.0% were taking regular medication. Furthermore, Table 1 indicates that 58.3% of the participants tested positive for COVID-19, and 17.7% reported the loss of a relative due to the disease. Table 1 also illustrates that 39.0 % of the participants reported receiving psychological treatment.

Table 1. Demographic characteristics of the participants

Variables/descriptions		*N*	%
Gender	Female	266	55.4
	Male	214	44.6
Total		480	100
Marital status	Married	144	30.0
	Single	336	70.0
Total		480	100
Having psychological treatment	Yes	187	39.0
	No	293	61.0
Total		480	100
Chronic diseases	Yes	81	16.9
	No	399	83.1
Total		480	100
Regular medication use	Yes	101	21.0
	No	379	79.0
Total		480	100
Having had COVID–19?	Yes	280	58.3
	No	200	41.7
Total		480	100
Having lost any family members due to COVID–19?	Yes	85	17.7
	No	395	82.3
Total		480	100
		$\bar{X}$ ± SD	
Age		24.83 ± 5.11	

Ethical Considerations

The participants voluntarily completed the questionnaires. The ethical considerations of this study were rigorously designed to adhere to the highest standards, with a particular emphasis on the psychological well-being of the participants. All participants were provided with a detailed informed consent form that outlined the study's purpose, the voluntary nature of participation, the confidentiality of their responses, and the potential psychological impacts of participating. This consent form was designed to ensure that participants were fully aware of the nature of the study and the type of questions related to COVID-19 experiences, which could evoke sensitive or emotional responses. The study protocols, including specific measures to protect psychological well-being, were reviewed and approved by the human research ethics committee of Dicle University (Approval No. 20.04.2023/482594). This approval ensured all procedures met ethical standards as per the Declaration of Helsinki. To further protect participants, all collected data were anonymized and securely stored.

Having delineated the study's framework and research questions, we now proceed to discuss the data collection process. This section details the recruitment strategies, data collection methodologies, and the tools utilized to gather accurate and relevant data, ensuring that the methodologies align with the overarching research objectives and questions laid out previously.

Data Collection and Measures

The study was conducted from April 19, 2023, to April 28, 2023. The data collection process for this study was designed to ensure robustness, security, and integrity, aligning with established online research methodologies. Participants were recruited through an extensive online campaign targeting diverse demographic groups across Türkiye. Recruitment channels included social media platforms, online forums, and emails through professional and community networks. To ensure a wide reach, invitations were designed

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to clearly communicate the study's purpose and requirements. Interested individuals were directed to an online consent form which provided detailed information about the study, including participation benefits and confidentiality measures.

Data was collected using a secure online survey platform that complies with international standards for data protection and privacy. The platform was configured to allow participants to complete the questionnaire anonymously. The survey interface was user-friendly to accommodate a broad range of participants, including those with limited technical skills. Participants were able to save their responses and return to complete the survey at their convenience, which helped to reduce potential data entry errors and improve the quality of the data collected. Several steps were taken to ensure the integrity and security of the data. First, the online system was set up to automatically check for incomplete or inconsistent responses, prompting participants to review and correct their entries if necessary. The data was regularly backed up on secure servers, and all electronic records were anonymized to maintain participant confidentiality. Through these meticulous and carefully managed procedures, the study aimed to collect high-quality data that accurately reflects the experiences and impacts of COVID-19 on participants' quality of life. The integration of robust online data collection management and stringent security protocols ensured that the study upheld the highest standards of research integrity and ethics.

The survey consists of 2 parts. The first section includes questions that describe the participants. These questions cover gender, age, marital status, chronic disease status, regular medication use, previous COVID-19 exposure, loss of a relative due to COVID-19, and the status of receiving psychological treatment.

The second instrument used in this study to evaluate the impact of COVID-19 on the quality of life was the COV19-QoL scale, adapted for the Turkish population by Ökten and Gezgin Yazıcı.[24] The adaptation process included meticulous translation and validation steps to ensure cultural and linguistic appropriateness for Turkish respondents. The COV19-QoL scale consists of 6 items, each rated on a 5-point Likert scale, assessing various dimensions of quality of life influenced by the pandemic. The scale has a minimum score of 5 and a maximum score of 30. The scale contains no items in reverse format. A higher score on the scale indicates a more substantial perceived effect of the pandemic on an individual's quality of life. These dimensions include overall life quality, mental and physical health deterioration, anxiety, depression, and perceived personal safety, with higher scores indicating a greater negative impact. The Turkish adaptation of the COV19-QoL scale involved a methodological study with 485 participants. The scale's content validity was affirmed through expert evaluation, achieving a high content validity index of 0.95. Furthermore, the scale demonstrated excellent internal consistency with a Cronbach's alpha of 0.86. In this study, the scale's Cronbach's alpha coefficient was 0.88 ascertained. Exploratory factor analysis confirmed the unidimensional structure of the scale, explaining 59.449% of the total variance, which aligns closely with the original scale's properties. Adjustments were made to the scale items to better reflect the Turkish cultural context and language nuances, enhancing the relevance and sensitivity of the instrument to local perceptions and experiences during the pandemic. This comprehensive adaptation and validation process not only ensures that the COV19-QoL scale is a reliable and valid tool for assessing the pandemic's impact on quality of life in Türkiye but also underscores the scale's utility in tracking psychological and social changes during health crises. The inclusion of this scale in our study provides a nuanced understanding of the COVID-19 pandemic's broader effects on community well-being in a culturally specific context.

With the data successfully collected through robust and secure methodologies, our attention now shifts to the analytical techniques used in this study. The next section elaborates on the statistical methods applied to scrutinize the data, aiming to rigorously evaluate the hypothesized impacts of COVID-19 on various dimensions of quality of life as identified in our research questions.

Data Analysis

Data analysis in this study utilized the Statistical Package for Social Sciences (SPSS) version 26.0. The validity and reliability of the quantitative measures were assessed. Internal reliability was evaluated using Cronbach's alpha (α) reliability. The underlying structure of the COV19-QoL was explored using Principal Component Analysis (PCA). In this study, the Kaiser-Meyer-Olkin (KMO) Measure and Bartlett's Test of Sphericity were employed. The KMO measure is used to assess the adequacy of the sample size, and in this research the KMO value was found to be 0.86. This value indicates that the sample size is appropriate for factor analysis.[26] Bartlett's Test examines whether the data set is suitable for factor analysis, and in this study, the approximate χ^2 value was 1446.18, with 15 degrees of freedom (df) and a significance value of 0.00. These results demonstrate that the data set is suitable for factor analysis.[27] In the research, the extraction communalities of the scale items varied between 0.46 and 0.73. This indicates that the variables are significantly explained by the factors.[28] In this study, it was determined that the total variance explained was 62.66%. In the research, each scale item's factor loading value was identified to be above 0.40. Descriptive statistics were calculated. We conducted an independent sample t-test to compare the mean total score, selecting a P value of 0.05 for this study. This indicates that the outcomes are statistically significant. In this study, independent sample t-tests were employed to analyze the effects of COVID-19 on quality of life among different participant groups. This statistical method was chosen due to its efficacy in comparing the means of 2 independent groups, which aligns with the study's objectives to evaluate the impact of psychological treatment status, chronic illness, medication use, and other factors on quality of life during the pandemic. The application of t-tests in this research is predicated on several key assumptions that must be met to ensure the validity of the results. This assumption was met as the data for different groups (those receiving psychological treatment versus those not) were collected from independent samples within the broader study population. Prior to conducting the t-tests, the normality of the distribution of the dependent variable (quality of life scores) within each group was assessed using Skewness and Kurtosis. Quality of life scores were found to be normally distributed. The decision to use t-tests was also supported by the specific structure of the research questions, which compare 2 groups on a quantitative outcome. For instance, to address the research question on whether COVID-19 impacts the quality of life differently among those receiving psychological treatment compared to those who do not, the t-test provided a direct method for testing this hypothesis based on the mean differences in quality of life scores. These tests are particularly powerful for this study's needs due to their ability to handle small to moderate sample sizes while providing robust results, assuming the data meet the necessary statistical assumptions as outlined. In this study, ANOVA and MANOVA analyses were not used due to the independent

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variables consisting of no more than 2 groups and the dependent variable being composed of a single structure.

Following a comprehensive analysis using advanced statistical tools, we now present the findings of the study. This section translates our analytical results into meaningful insights, directly addressing the research questions posed earlier and reflecting on the theoretical and practical implications of these findings.

Results

Table 2 presents the average scores of participants' perceptions of mental health in relation to quality of life, after the onset of the coronavirus. The participants' average opinion concerning the comparison of their quality of life before the pandemic and now scores at 3.53 ± 1.21. On average, participants reported a score of 3.00 ± 1.22, showing their opinion about the decline in their mental health. Participants reported an average perceived decline in their physical health with a mean score of 3.18 ± 1.18. Participants reported experiencing increased levels of tension (3.09 ± 1.24) and depression (2.96 ± 1.24). The participants rated the perceived risk to their personal safety as a mean of 3.00 ± 1.24. The participants had a mean total quality of life score of 3.13 ± 0.97, indicating a moderate level (Table 2).

Table 3 shows the results of the comparison of the effect of COVID-19 on quality of life in the context of the demographic characteristics of the participants. It is seen that the effect of COVID-19 on quality of life differed significantly according to the status of receiving psychological treatment (t = 18.16; P = 0.00). The effect of COVID-19 on quality of life was higher in those who received psychological treatment (23.39 ± 4.45). According to the chronic disease status, the effect of COVID-19 on quality of life differed significantly (t = 5.89; P = 0.00), and in this difference, those with chronic disease had a higher effect of COVID-19 on quality of life (22.10 ± 4.43). As a result of the analysis according to the status of regular medication use, it is seen that the effect of COVID-19 on quality of life differs significantly (4.38; P = 0.00). In this section, the effect of COVID-19 on quality of life was more significant (20.96 ± 5.21) in regular drug users. In addition, the effect of COVID-19 on quality of life was found to be higher (20.70 ± 5.83) in those who had COVID-19 (t = 9.44; P = 0.00). Finally, the effect of COVID-19 on quality of life was found to be more significant (21.29 ± 4.65) in those who had lost a relative due to COVID-19 (t = 4.54; P = 0.00).

The findings presented above provide a detailed look at the differential impacts of COVID-19 on the quality of life across varied demographics and conditions. We now turn to the Discussion and Conclusion section, where these results are interpreted in the context of existing literature. This part of the manuscript explores the broader implications of our findings, compares them with previous studies, and discusses the potential mechanisms behind the observed effects.

Table 2. The perceived impact of COVID-19 on the quality of life of the respondents

Items	Mean	*SD*
I think my quality of life is lower than before	3.53	1.21
I think my mental health has deteriorated	3.00	1.22
I think my physical health may deteriorate	3.18	1.18
I feel more tense than before	3.09	1.24
I feel more depressed than before	2.96	1.24
I feel that my personal safety is at risk	3.00	1.24
Total Score (COV19-QoL)	3.13	0.97

Table 3. Comparison and differences test on the impact of COVID-19

Variables/descriptions		*N*	Mean	*SD*	*t*	*P*
Having psychological treatment	Yes	187	23.39	4.45	18.16	**0.00***
	No	293	15.81	4.46		
Chronic diseases	Yes	81	22.10	4.43	5.89	**0.00***
	No	399	18.08	5.80		
Regular medication use	Yes	101	20.96	5.21	4.38	**0.00***
	No	379	18.17	5.80		
Having had COVID–19?	Yes	280	20.70	5.83	9.44	**0.00***
	No	200	16.05	4.51		
Having lost any family members due to COVID–19?	Yes	85	21.29	4.65	4.54	**0.00***
	No	395	18.21	5.87		

*P < 0.01

Limitations

This study has some limitations. First of all, this study was cross-sectional and descriptive in nature. Examining the situation regarding quality of life after the pandemic requires research based on long-term observation and follow-up. Since it wasn't possible to conduct long-term research in the current culture, we discussed findings based on the results of cross-sectional research. Future research can be designed with mixed design and exploratory designs with long-term follow-up and in-depth understanding of the impact of pandemics on quality of life and other variables. Our study was limited to Türkiye and included only voluntary participants from the general population. New studies can be conducted in different country populations and cross-country comparative studies. Answers to similar research questions can be sought for different social groups in society, such as the elderly, children, and people with chronic diseases.

Another limitation of the study is that the population of this study consisted of individuals who received or did not receive psychological treatment based on their own reports. Also, although we take care because it is based on self-report measures, participants may not answer the questions asked of them accurately.

Discussion

This study was conducted to examine the effect of COVID-19 on quality of life in those who received psychological treatment after COVID-19 and those who did not. In addition, the effect of COVID-19 on quality of life was examined according to chronic disease status, regular medication use, having COVID-19, and losing a relative due to COVID-19. The study found that the effect of COVID-19 on quality of life was moderate. This result shows that the participants have some level of adjustment to the post-COVID-19 period. In the study, as a result of the analysis according to the status of receiving psychological treatment, it was determined that

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the effect of COVID-19 on quality of life differed significantly. It is seen that the effect of COVID-19 on quality of life is more intense in those who receive psychological treatment. Tripoli et al. reported that the effect of COVID-19 on quality of life was moderate.[29] The study found that the effect of COVID-19 on quality of life differed according to the presence of serious mental illness. In the same study, people with serious mental illness had a lower effect on quality of life than others.[29] A similar finding was found in a European-based study.[30] Other studies found that the COVID-19 crisis had no significant effect on quality of life and almost no effect on mental health.[31,32] These results from the literature may have differed because they were conducted during periods of normalization after the pandemic. According to similar studies, our study was conducted in the post-COVID period. This difference in findings may be due to both culture and timing. In integrating the findings of this study with the broader body of literature it becomes evident that the impact of COVID-19 on quality of life varies significantly across different demographic and clinical groups, echoing patterns observed in similar high-quality studies. Our observations regarding the moderate impact of COVID-19 on quality of life align with those of Pfefferbaum and North,[33] who describe the psychological resilience in the general population during early pandemic stages.[33] Conversely, our findings highlight a more pronounced impact on those receiving psychological treatment, which contrasts with studies like Brooks et al.,[34] which found widespread psychological distress regardless of prior mental health treatment.[34]

In the study, it was also found that the effect of COVID-19 on quality of life was significant according to chronic disease status. Those with chronic diseases reported that the effect of COVID-19 on quality of life was more significant. This finding contrasts with the results obtained in the study by Karakus, Apaydin, and Cevahircioglu.[35] In the study, it was reported that in addition to having COVID-19, chronic disease status and having sufficient information about COVID-19 did not affect the total COV19-QoL-TR total scores of the participants.[35] Another finding of our study was that the effect of COVID-19 on quality of life differed significantly according to regular medication use. Regular medication users reported that COVID-19 had a stronger effect on quality of life. Our study's unique insights into the differential effects based on chronic disease status and regular medication use add depth to the findings reported by Taquet et al.,[36] who found that psychological impacts during the pandemic were notably more severe among those with preexisting health conditions. This underscores the importance of targeted interventions to manage the mental health consequences of COVID-19 in these vulnerable populations.

In the study, significant difference was found between the variable of being tested positive for COVID-19 and the total scores of the COV19-QoL scale. The perceived impact of the pandemic on a person's quality of life is greater in those with COVID-19. This result is similar for those who have lost a relative to COVID-19. In the study conducted by Sümen and Adıbelli,[37] it was concluded that the effect of COVID-19 on quality of life was more pronounced in those who tested positive for COVID-19. In the study by Russell,[38] it was concluded that the effect of COVID-19 on quality of life differed according to whether there was a case of COVID-19 in the immediate environment and whether they knew someone who died from COVID-19.[38] Other studies found that the total COV19-QoL score did not differ significantly according to whether the COVID-19 test was previously positive.[39,40] Furthermore, the significant effects noted in individuals with direct or familiar experiences of COVID-19 resonate with the work of Holmes et al.,[41] who identified high-risk groups such as those with direct health impacts from the virus and their close contacts as particularly susceptible to long-term psychological distress. Our study suggests that these impacts are nuanced and vary significantly with personal health history and experiences of loss due to the virus, indicating the need for specialized mental health services tailored to these experiences. Given these varied impacts, it is critical for policymakers to consider these differences when designing public health interventions and mental health services post-pandemic. Future research should seek to employ longitudinal designs to track these impacts over time, providing a more dynamic understanding of the pandemic's long-term effects on different population segments. This approach is supported by the recommendation of Loades et al.,[42] who advocate for longitudinal studies to assess sustained psychological outcomes in the wake of global health crises.

Tian et al.,[43] found that during the pandemic in China, individuals under 18 years old and over 50 years old, those with less education, divorced or widowed, agricultural workers, and minorities had more obsessive-compulsive symptoms, interpersonal sensitivity, phobic anxiety, and psychotic symptoms.[43] Older individuals who are more anxious about being infected and dying tend to develop more serious psychological symptoms, which need to be addressed.[7] Considering these results, it is important for policymakers to focus on the elderly, children, and adolescents similarly to fight the pandemic more effectively. Other studies have reported that individuals who are likely to be exposed to more negative consequences during the COVID-19 pandemic include the elderly, young people, women, students, migrant workers,[43,44] and individuals in prison and the homeless population.[41] According to Cao et al.,[4] residing in an urban area, as opposed to a rural one, living within a family unit, and having a stable, regular income are protective factors in the process of navigating COVID-19. The study also found that when a family member, relative, or acquaintance contracts the COVID-19 virus, it increases the anxiety levels of individuals. Discrimination and stigmatization are additional factors that can make individuals more psychologically vulnerable during the pandemic. Tests positive for COVID-19, whether in themselves, their families, or even those in their immediate social circle, can lead to increased discrimination or stigmatization similar to that experienced by health care workers.[45] Even if they do not develop the disease and remain physically healthy, potentially high-risk individuals, individuals suspected of being infected, or those in close contact with confirmed cases can still experience adverse psychological effects during the COVID-19 pandemic.[46]

Individuals are greatly impacted by the COVID-19 pandemic. Individuals should take care of their physical and emotional well-being. This study highlighted the effect of the COVID-19 on quality of life in those who received and did not receive psychological treatment. In the study, the effect of COVID-19 on quality of life was also examined according to the status of chronic disease, regular medication use, and having lost any family members due to COVID-19. The results showed that the perceived impact of COVID-19 on quality of life was higher in those who received psychological treatment, had a chronic condition, took regular medication, had COVID-19, and lost any of their relatives due to COVID-19. The fact that the sample consisted of individuals who received and did not receive psychological treatment revealed its difference from the original study. Individuals who received psychological treatment need assistance in adjusting to the effect of the COVID-19 pandemic. This research has added to the increasing body of literature on the effect of COVID-19 on quality of life.

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Empirical studies in the international literature indicate a negative correlation between individual anxiety and life satisfaction during the pandemic.[47–50] Similarly, studies conducted both before[51] and after[52,53] the pandemic in Türkiye show the negative impact of anxiety on life satisfaction.[21] Therefore, the results of our study are consistent with both the national and international literature.

Having discussed the significant insights and implications of our findings, it is essential to acknowledge the limitations of our approach and the scope of our study. The following section outlines these limitations and proposes directions for future research, which are crucial for advancing our understanding of the pandemic's long-term effects on quality of life and for informing more effective public health responses.

Conclusions

The study has several strengths. First, there is limited research on the effect of COVID-19 on quality of life of those who received psychological treatment and those who did not in the post-COVID-19 period. In this regard, the study is considered a contribution to the field. The study provides modest but important scientific evidence for post-pandemic health policies, drawing attention to psychological health.

In the post-COVID-19 period, individuals strive to feel mentally, spiritually, and physically well. Although measures such as restrictions and social isolation experienced during the pandemic period have been replaced by normalization, the level of quality of life is not yet at the desired level. Considering that COVID-19 has a higher impact on quality of life, especially in those receiving psychological treatment, coping mechanisms should be developed for this group to overcome mental problems. In addition, it is recommended to expand psychological treatment services that have been disrupted by the pandemic. At this point, psychological treatment services can also be accessed through telehealth methods. Bao et al.[54] recommend the inclusion of mental health services in national public health emergency systems for the development of policies and campaigns aimed at containing and eradicating the pandemic.[54]

Considering the psychological impact of the COVID-19 pandemic, which includes shock, denial, anxiety, worry, and stress, it's crucial to prioritize high-risk groups like children, the elderly, women, health care workers, people with preexisting psychological disorders, those undergoing psychiatric treatment, and migrants.[55] Furthermore, efforts should be directed toward crisis management, stress management, spreading awareness, promoting compassion, building coping mechanisms, and strengthening social support resources for the general population.[55]

Research has shown that interventions such as relaxation, music therapy, mental health and coping skills, mindfulness, and comprehensive psychological skills including self-care and crisis management have been used to address psychological problems such as stress, anxiety, worry, quality of life, sleep, and depression during the pandemic.[56]

Data availability statement. The data that support the findings of this study are available from the corresponding author, SK, upon reasonable request.

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Author contribution. **SK:** Conceptualization, methodology, investigation, validation, formal analysis, data curation, writing—preparation of the original draft. **PŞT:** Conceptualization, methodology, investigation, visualization, writing—original draft preparation, review, and editing. All authors have reviewed the manuscript.

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