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COVID-19 Pandemic Psychosocial Impact Scale: Scale Development and Reliability and Validity Study

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ABSTRACT

Background: The aim of this research is to develop a multidimensional scale that reveals the psychosocial impact of coronavirus disease 2019 (COVID-19) pandemic on people with its dimensions.
Methods: An item pool of 155 questions was created by examining the literature, and these items were turned into a questionnaire with 76 questions by taking expert opinions. During the pilot study, this questionnaire was applied to 335 people from the general population, who were reached with the snowball sampling model. The second phase of the study was carried out with a second new sample group consisting of 826 participants, and confirmatory factor analysis, mean explained variance and compound reliability, and Cronbach's alpha analyses were applied to the obtained data. The test-retest study of the scale was re-applied to the second sample group, reaching 826 participants with an interval of 3 weeks.
Results: The explained variance value of the scale was 81.352%. As a result of confirmatory factor analysis, the factor loads of the items of the scale were between 0.59 and 0.91, and the relationships between the items and the latent variables were significant at the $P < .01$ level; fit criteria is excellent and acceptable; Cronbach's alpha coefficient was found to be between 0.897 and 0.957, and as a result of the test-retest, the reliability coefficients were found to be between 0.948 and 0.950.
Conclusion: From the results obtained, it was accepted that all the reliability and validity indicators of the COVID-19 pandemic Psychosocial Impact Scale are high and can be used as a valid and reliable scale to measure the psychosocial effects of the coronavirus disease 2019 pandemic process on individuals.

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KEYWORDS: COVID-19, psychometry, psychosocial impact, reliability and validity study, scale development

INTRODUCTION

Throughout history, the world has experienced many epidemics. If these epidemics spread rapidly among people and are caused by a new virus, these epidemics are considered as pandemics.[1] These epidemics, which have been experienced since the first pandemic (Egypt, 541), have caused many health problems and deaths. At the same time, all these epidemics, which affect a large group of people, have caused changes in social life, as well as in the field of health, with their psychological, social, and economic dimensions. The coronavirus disease 2019 (COVID-19) pandemic, which has affected our country and the whole world, has affected people biologically, psychologically, and socially, like other pandemics in history. In the literature, COVID-19 pandemic causes symptoms such as severe stress on people, social distancing from peers and family members, decreased socialization and physical problems,[2] traumatic stress and anxiety symptoms, post-traumatic stress disorder, confusion and anger,[3] increased symptoms of anxiety and depression,[4,5] severe symptoms of depression, anxiety, and stress,[6] anxiety and pessimism about future expectations,[7,8] insomnia in addition to anxiety and depression, especially in healthcare professionals,[9] and increased anxiety levels in economic life, daily life, and social support[10] are among the reported information.

Significant and rapid changes took place in the daily lives of people in our country and all over the world with COVID-19, which emerged for the first time in Wuhan, China, in November 2019 and was accepted as a pandemic by the World Health Organization in a short time. The decisions of the health policies of the countries played a major role in this. Decisions made by health policy were quickly implemented in people's lives. These applications are partially easy to implement such as wearing masks, social isolation, and social distance; they also included practices that caused major changes in human life and affected people's lives such as travel bans, curfews, short- and/or long-term partial and/or full closure, working from home, etc. There is information in the literature that these changes can reveal the symptoms

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of stress since encountering a life event that will affect one's life has the power to change the meaning of everything that has been experienced in the past.[11] In studies on the COVID-19 pandemic, it is observed that there is a 30% increase in stress levels of people before and after the COVID-19,[12] and in studies comparing before and after the COVID-19, the situation of meeting the criteria of a serious or moderate psychological problem is between 3 and 8 times increased,[13] due to the stress during the COVID-19 period; in addition to its relationship with anxiety, health anxiety, and depression, it is also reported that it causes deterioration in the functionality of individuals[14] and that the relationship between death and anxiety is at a level to be considered.[14,15]

Again when we look at the literature, there are some scales developed to measure the impact of the COVID-19 pandemic on people or adapted to Turkish for which validity and reliability studies have been carried out. It is seen that these scales aim to measure perceptions and attitudes toward the COVID-19,[16,17] the fear of COVID-19,[18-20] awareness of the COVID-19 pandemic,[21] the anxiety experienced by certain groups such as athletes during the COVID-19 pandemic period,[22] the somatic and nonsomatic effects of the COVID-19,[23] traumatic stress symptoms[24] experienced by people during the pandemic period and that address a dimension or a group for the psychological and social effects of the pandemic.

The COVID-19 pandemic is a dynamic and hard to control health war that our country and the world are caught unprepared for. In this context, the rapid and variable decisions taken by our country and other world countries and health policies aimed at controlling and/or ending the pandemic have often not been stable and sustainable. This situation has caused people to go through a long period of stress that is difficult to control, and a traumatic dimension of stress emerge with the experienced losses. As the literature about traumatic stress is intertwined with somatic symptoms and even the traumatic process is recorded in the body,[25] the existence of a tool that also measures somatic symptoms becomes important. Considering this information, it is anticipated that the existence of a measurement tool that will enable the evaluation of the psychosocial effects of the COVID-19 in the context of traumatic stress, anxiety, depressive symptoms, intimate relationships, death anxiety, and somatic symptoms is necessary, and such a scale will open up space for future studies. This study, on the other hand, was carried out based on the deficiencies in the scales related to the subject in the literature and the presence of information on the increasing psychological and social effects of COVID-19, and it was conducted to determine a valid and reliable measurement tool to determine the multidimensional psychosocial effects of the COVID-19 pandemic period on people.

The problems of the research are as follows:

- Is the COVID-19 pandemic Psychosocial Impact Scale a valid measurement tool?
- Is the COVID-19 pandemic Psychosocial Impact Scale a reliable measurement tool?

MAIN POINTS

- Coronavirus disease 2019 (COVID-19) pandemic Psychosocial Impact Scale is a valid scale
- COVID-19 pandemic Psychosocial Impact Scale is a reliable scale.
- COVID-19 pandemic Psychosocial Impact Scale consists of 5 factors: Close Relationships, Functionality, Death Anxiety, Somatic Symptoms, and Anxious Thoughts.
- COVID-19 pandemic Psychosocial Impact Scale has shown that it is durable against time with test-retest studies.

METHODS

Before starting the study, an application was made to the Maltepe University Ethics Committee, and the study approval was obtained with the protocol number 2021/07-12 dated March 05, 2021. In the study, which was carried out in 2 stages, after the participants were informed about both stages of the research, their informed consent forms were obtained.

In the study, an item pool of 155 items was created after reading the literature and then the number of items was reduced to 76 by taking expert opinions. In the first stage of the research (pilot study), which was carried out in 2 stages as the pilot study and the final sample study, 335 participants over the age of 18 who were selected from the general population with the snowball sampling model were reached through online platforms. Of the participants, 129 were male and 206 were female; their ages were between 18 and 71 years, and the mean age of the whole group was 39.17. During the study, the first version of the COVID-19 pandemic Psychosocial Impact Scale developed by the researchers, consisting of 76 questions, was used as a data collection tool. Scale items were converted into a questionnaire in 5-point Likert format. Grading is made as "strongly disagree," "disagree," "slightly agree," "agree," and "strongly agree" and is scored between 1 and 5. The increase in the scores indicates that the level of psychosocial influence has increased. Some items in the scale were expressed as reverse items, and protection against response bias was provided. In the second part of the study, in order to verify the factor structure explained in the first stage, a second sample group selected from the general population with the snowball sampling model was included in the study. A total of 826 participants over the age of 18, constituting the second sample group, were also reached through online platforms, of which, 265 were male and 561 were female; their age range was 18-79, and the average age of the whole group was determined as 38.19. Considering the educational status of the sample,

18.5% of them are high school graduates, 63.8% of them have bachelor's degree, and 17.7% of them have a master's degree or higher. Looking at the working situation, 66.2% are working, 17.1% are not working, 7.9% are students, and 8.8% are retired. When their marital status is evaluated, 56.3% are married, 43.7% are single; when we look at whom they live with, 22.4% stated that they live with their family, 6.1% with their children, 30.8% with their partner and children, 24.1% with their partner, and 16.7% alone. At this stage of the research, the COVID-19 pandemic Psychosocial Impact Scale, consisting of 33 items and 5 dimensions revealed during the pilot study, was used as a data collection tool. There are no items to be reverse coded in the 5-point Likert-type questionnaire. The increase in the scores indicates that the level of psychosocial influence is high. The lowest score that can be obtained from the scale is 33 and the highest score is 165. Three weeks after the data collection phase of the second study, 826 participants in the second sample group were contacted again for the test-retest study of the scale, and they were asked to respond to the scale again. In the validity studies of the scale, Kaiser Meyer Olkin Test (KMO) and Barlett sphericity tests, explanatory factor analysis (EFA), item scale correlations, examination of confirmatory factor analysis (CFA), mean variance explained (AVE), and statistical expression of the combined reliability analysis (CR) values in the reliability study, and Cronbach's alpha analysis techniques were applied. The test-retest analysis of the scale was applied with the Pearson's correlation technique with 826 participants in the second sample, 3 weeks after the first application.

RESULTS

The findings of the first phase of the research are as follows: Within the scope of the research, item analysis was conducted on 76 items created after expert opinions. The correlation of each item in the scale with items other than itself is expected to be above 0.30.[26] For this reason, it was decided to exclude 31 items from the scale, as the correlation of these 31 items with other items was below 0.30. KMO and Barlett sphericity tests were examined in order to determine the existence of the relationship between the variables, which are the prerequisites of EFA, and the adequacy of the data structure for factor analysis. Since the KMO coefficient and Bartlett test of sphericity were significant and the data showed statistically normal distribution, it was decided that it was appropriate for factor analysis [KMO = 0.924; Barlett's $\chi^2 = 12\ 751.507$, $P = .000$, $df = 528$].

In line with this information, varimax vertical rotation technique, one of the principal components analysis, was used to determine the factor structure of the scale. When Table 1 is examined, it is seen that the COVID-19 pandemic Psychosocial Impact Scale consists of a 5-factor structure with eigenvalues above 1. The first factor alone explains 20.375% of the scale, the second factor alone explains 17.578% of the scale, the third factor alone explains 16.444%, the fourth factor alone explains 14.758% of the scale, and the fifth factor alone explains 12.917% of the scale. The entire 5-factor structure explains 81.352% of the scale. Since the explained variance value between 40% and 60% was considered sufficient, the variance values of the developed scale were accepted at a good level.

In order to make a more accurate decision on the factor structure, the Scree plot was also examined, and it was seen that the break in the chart occurred after the 5th factor; therefore, the slope became stable for the other factors after the 5th factor. This supports that the scale consists of 5 factors. Afterward, this factor structure and the reliability level of the items were examined, and the internal consistency coefficients of the factors were examined. In order to decide whether an item should remain in the scale, the criterion of factor load greater than 0.45 and distance between factors greater than 0.10 was used.[26] Since it was seen that the factor load values of 10 items in the scale were below 0.45, it was decided to remove them from the scale. It was observed that the factor loading values of the other items varied between 0.705 and 0.941. When the indecisiveness of the item was examined, the distance between the factors of the 2 items in the scale was found to be less than 0.10 and was removed from the scale. Since items were extracted from the scale as a result of factor analysis, the item-scale relationship of each factor was re-examined, and it was determined that the correlation of each item with items other than itself was above 0.30.

When the Cronbach's alpha internal consistency coefficients of the factors obtained as a result of the analyses are examined; the internal consistency coefficients of the first factor (Death Anxiety), the second factor (Anxious Thoughts),

Table 1. Eigenvalues and Explained Variances of the COVID-19 Pandemic Psychosocial Influence Scale

Factors	Preliminary Eigenvalue			After Varimax (Rotation)		
	Sum	Variance %	Cumulative %	Sum	Variance %	Cumulative %
1	11.048	33.478	33.478	6.724	20.375	20.375
2	6.394	19.376	52.854	5.801	17.578	37.953
3	3.497	10.596	63.450	5.427	16.444	54.397
4	3.262	9.886	73.336	4.870	14.758	69.155
5	2.645	8.016	81.352	4.025	12.197	81.352

the third factor (Close Relationships), the fourth factor (Somatic Symptoms), and fifth factor (Functionality) are 0.972, 0.963, 0.948, 0.954, and 0.937, respectively, and it was determined to be at an acceptable level of reliability.

Since the item-total correlation value was above 0.30 for all items, it was determined that the measuring power of the items was at a sufficient level. As seen in Table 2, it was determined that the relationship between the scale items and the total score obtained from the scale ranged between 0.356 and 0.694, and the relationships were statistically significant ($P < .01$). According to this result, it was determined that there was no problem in the consistency of the items with each other.

It was examined whether each item statistically significantly differentiated the group in the upper 27% of the sample (n = 90) and the group in the lower 27% (n = 90) over the total score. As a result of the analysis, it was seen that all items in the scale significantly differentiated the upper and lower groups from each other.

The findings of the second study of the scale are as follows: CFA was conducted through the LISREL 8.7 program in order to verify the explained factor structure. According to the CFA results of the COVID-19 pandemic Psychosocial Influence Scale, since the compliance criteria were not at the desired level at the first stage, it was necessary to make modifications between the items 11-12, 18-20, and

Table 2. The Items of the COVID-19 Pandemic Psychosocial Impact Scale and the Scale Total Correlation Values

	Items	*r*	*P*
1.	I am worried about having the disease (COVID-19)	0.596	.000**
4.	I am worried that a relative of mine has the disease (COVID-19)	0.495	.000**
6.	If I get sick (COVID-19), I think my body can't handle it	0.662	.000**
9.	I try to be busy with something to suppress the anxiety I have during the day.	0.527	.000**
10.	I have compelling thoughts about the past and the future	0.556	.000**
11.	I think I will get a virus if I don't wash my hands often	0.546	.000**
12.	Thinking about the disease (COVID-19) worries me	0.580	.000**
23.	I often think about when the disease (COVID-19) will infect me	0.524	.000**
28.	I had more arguments with my partner/family than before	0,588	.000**
29.	During this period, my sexual desire decreased.	0.559	.000**
34.	I found it harder than before to solve the problems I had with my family/partner	0.583	.000**
35.	I had difficulty controlling my anger	0.545	.000**
36.	My family/partner made me worry more during the pandemic	0.563	.000**
37.	I thought about severing ties with my family/partner	0.512	.000**
39.	I have difficulty sharing my feelings with my family/partner	0.579	.000**
41.	I think I'm more introverted than before	0.590	.000**
45.	The quarantine period made me worry financially	0.428	.000**
47.	I didn't have the energy to do anything during the quarantine period	0.356	.000**
52.	I have trouble concentrating on something	0.400	.000**
54.	I think I've lost control	0.636	.000**
55.	I feel tremors in some parts of my body (legs, arms, hands, etc.)	0.618	.000**
56.	I have hot flashes/fever during the day	0.600	.000**
57.	I have digestive problem	0.639	.000**
58.	The bodily changes that I'm going through worry me a lot.	0.659	.000**
61.	In this period, I thought of committing suicide.	0.674	.000**
62.	Thinking that I'm going to die alone worries me	0.621	.000**
63.	Reading an article about death/encountering the news worries	0.652	.000**
64.	It worries me to think that I will suffer when I die.	0.664	.000**
65.	I often think that someone close to me is going to die	0.625	.000**
66.	I don't think I can handle it if someone close to me dies.	0.631	.000**
67.	I think everyone who gets the disease (COVID-19) will die	0.637	.000**
75.	Uncertainties in life stress me out	0.500	.000**
76.	Uncertainty hinders me when I want to do something	0.491	.000**

**$P < .01$.
COVID-19, coronavirus disease 2019.

32-33. Statistics of factor loadings of the scale are given in Table 3.

These values are acceptable since the factor loads of the items belonging to the scale were determined to be between 0.59 and 0.91 as a result of CFA. The *t* values, which are the expression of the statistical significance level of the relations between the items and latent variables, were found to be significant at the $P < .01$ level. In order to accept the factor model that emerged as a result of the analyses, the fit criteria were examined. The findings appear to be in perfect and acceptable fit criteria [χ^2 (N = 826) = 3.871, $P = .00$, goodness-of-fit index = 0.93, adjusted goodness-of-fit index = 0.91, Non-normed fit index = 0.98, comparative fit index = 0.98, RMSEA = 0.059, root mean square residual = 0.078, standardized-root mean square residual = 0.049]. In the light of these findings, it was determined that the factor structure revealed during the pilot study was confirmed as a result of CFA.

Table 3. Standardized Beta Coefficients, Error, and *t* Values of the Scale

Factors	Item No	Standized Factor Loadings	Error	*t*
Close Relationships (Factor 1)	Item 1	0.82	0.32	28.57**
	Item 2	0.63	0.60	19.76**
	Item 3	0.83	0.32	28.75**
	Item 4	0.81	0.34	28.06**
	Item 5	0.81	0.34	28.07**
	Item 6	0.86	0.25	30.82**
	Item 7	0.87	0.24	31.41**
Functionality (Factor 2)	Item 8	0.91	0.17	33.4**
	Item 9	0.81	0.35	27.44**
	Item 10	0.72	0.48	23.35**
	Item 11	0.82	0.32	29.29**
	Item 12	0.78	0.38	26.24**
Death Anxiety (Factor 3)	Item 13	0.90	0.18	33.34**
	Item 14	0.83	0.31	29.22**
	Item 15	0.83	0.31	29.01**
	Item 16	0.85	0.28	29.95**
	Item 17	0.82	0.33	28.45**
	Item 18	0.84	0.29	10.7**
	Item 19	0.80	0.37	27.21**
	Item 20	0.83	0.30	29.26**
Somatic Symptoms (Factor 4)	Item 21	0.83	0.31	28.63**
	Item 22	0.79	0.38	26.32**
	Item 23	0.73	0.47	23.68**
	Item 24	0.69	0.52	22.06**
	Item 25	0.82	0.33	27.94**
	Item 26	0.77	0.41	25.43**
Anxious Thoughts (Factor 5)	Item 27	0.86	0.27	30.27**
	Item 28	0.87	0.25	30.98**
	Item 29	0.84	0.29	28.48**
	Item 30	0.88	0.23	31.4**
	Item 31	0.77	0.40	25.84**
	Item 32	0.59	0.66	17.96**
	Item 33	0.60	0.65	18.31**

**$P < .01$.

The reliability of the measurement model was tested by looking at the AVE and CR values. According to Fornell and Larcker,[27] it is expected that the AVE value, which reveals the relationship between the factors and each other, is above 0.50. The CR coefficient is also expected to be above 0.70 (Field, 2005). With the CR values above the threshold value of 0.70 (0.93, 0.90, 0.95, 0.90, 0.91) and AVE values above the threshold value of 0.50 (0.65, 0.66, 0.70, 0.60, 0.61), the reliability and convergent validity of the measurement model were ensured. As a result of the main study, Cronbach's alpha values of all dimensions of the scale were also found to be high, and the results are presented in Table 4.

In the time-dependent test-retest method of the scale, the test was applied to the same group twice at a certain interval, and the correlation coefficients were checked. Pearson's correlation coefficient is a method used when the relationship between variables is linear or when 2 variables are continuous.[28] The test-retest reliability coefficients calculated on the data obtained by re-administering the scale with 3-week intervals were found to be 0.964, 0.948, 0.985, 0.950, and 0.950. As a result of the analysis, it is seen that the relationship between test-retest scores in all factors is high.

DISCUSSION

With this study, it is aimed to develop a valid and reliable scale that will reveal the psychosocial effects of COVID-19, which is accepted as a pandemic, on people and provide measurement with its subdimensions.

It is seen that the factor structure of the scale consisting of 33 items and 5 dimensions revealed in the first stage of the study, which was carried out in 2 stages, was confirmed with a larger sample in the second study. Considering these factors, the first factor (8 items, $\alpha = 0.972$) alone accounted for 20.375% of the scale, the second factor (7 items, $\alpha = .963$) alone accounted for 17.578% of the scale, and the third factor (7 items, $\alpha = .948$) alone accounted for 16.444%

Table 4. Reliability Levels of the Factors of the Coronavirus Disease 2019 Pandemic Psychosocial Impact Scale as a Result of the Second Study

Factors	Cronbach's Alpha
Close Relationships (Factor 1)	0.927
Functionality (Factor 2)	0.909
Death Anxiety (Factor 3)	0.95
Somatic Symptoms (Factor 4)	0.897
Anxious Thoughts (Factor 5)	0.916
General Scale	0.957

of the scale, the fourth factor (6 items, α=.954) alone explains 14.758% of the scale, and the fifth factor (5 items, α= .937) alone explains 12.917% of the scale. The entire 5-factor structure explains 81.352% of the scale. In the study, it is seen that the scale provides convergent validity and its reliability values are high (α=.957).

It has been reported that death anxiety of individuals has an important place in studies conducted during the COVID-19 period[29] and that the relationship between death and anxiety in research participants is at a level that should be taken into account.[14,15] These findings showed the researchers that it is important to have a structure in which thoughts about death are revealed. In the light of this information, the first dimension of the scale, “Death Anxiety,” includes items about the concerns they have experienced or the thoughts they have about the fear of losing their relatives or their relatives as a result of death. With the Cronbach's alpha value of the "Death Anxiety" dimension of the scale of 0.950, it showed that it is a highly reliable dimension in measuring the death anxiety of individuals.

The effect of the experienced stressful situation on thoughts is included in the studies in the literature.[29,30] The high level of anxiety experienced by people during pandemics is explained by the experience of loss in the literature.[31] It has been reported that the SARS virus causes symptoms of especially severe depression and anxiety in humans,[32] and traumatic stress and anxiety symptoms are among the biggest effects of COVID-19. In another study carried out in 41 countries, it was found that the severity of anxiety of people with COVID-19 increased.[5]

In a study conducted in 35 countries on the mental impact of people during the COVID-19 period, it was revealed that people showed severe depression symptoms, severe anxiety symptoms, and severe stress symptoms.[6,12] When the difficulties experienced by people during the pandemic period are considered in the context of hopelessness and anxiety, they found that the majority of the participants in the studies experienced an anxiety and their expectations for the future were pessimistic, and that they showed symptoms of anxiety and depression.[7,8,33] In a study conducted with university students in Bangladesh, stressors caused by the pandemic had a positive relationship with anxiety. It has been reported that participants experience anxiety in economic life, daily life, and social support in particular.[10]

When these data are evaluated, the second dimension of the scale, "Anxious Thoughts," includes thoughts about COVID-19 that cause problems in the person and related to worries. The Cronbach's alpha value of the "Anxious Thoughts" dimension of the scale was determined as 0.916. The obtained value showed that it is a highly reliable dimension in measuring people's concerns.

There are findings showing that stressful situations cause problems especially in emotion regulation and interpersonal relationships.[33-35] In a study conducted by Haleem et al.[2], it was reported that problems such as severe stress symptoms, social distancing from peers and family members, less socialization and physical problems were observed.[2] When the literature is examined, it has been accepted as a necessity by researchers to measure the effects of the stress created by COVID-19 in close relationships. In the "Intimate Relationships" dimension, the third dimension of the scale, there are items about how the stress experienced by people during the pandemic period affects their relationships. The Cronbach's alpha value of the "Intimate Relationships" dimension is 0.927, which meets the high reliability criteria.

The fourth dimension, "Somatic Symptoms," consists of items about the problems caused by trauma in the body. The Cronbach's alpha value of the "Somatic Symptoms" dimension of the scale was determined as 0.897. Many studies were conducted to reveal the somatic symptoms caused by traumatic stress.[25] Therefore, it is important to understand the effects of the stress caused by COVID-19 on the body.

Finally, in the fifth dimension, "Functionality," there are items that aim to reveal the impairments in functionality, which are associated with depression and anxiety caused by stress. The Cronbach's alpha value of the "Functionality" dimension of the scale was determined as 0.909. Considering the place of functionality in human life, the determination of the effects of COVID-19 in this area becomes important. Considering the results of a study conducted with 565 American citizens during the pandemic period, the stress caused by COVID-19, it is noteworthy that in addition to its relationship with anxiety, health anxiety, and depression, it also causes deterioration in the functionality of individuals.[14]

The Covid-19 Pandemic Psychosocial Impact Scale consists of 5 sub-dimensions. These sub-dimensions consist of “Close Relationships”, “Death Anxiety”, “Functionality”, “Somatic Symptoms” and “Anxious Thoughts”. The cronbach alpha values of the sub-dimensions of the scale were determined as .927, .950, .909, .897 and .916, respectively. The overall Cronbach’s alpha value of the scale was determined as .957. With these data, the scale is a highly valid and reliable measurement tool. By providing a detailed and multidimensional measurement of the psychosocial impact of the pandemic, it can be used by future researchers in their studies, it will contribute to the researchers while evaluating the current and future impact of the pandemic, it can be a guide in evaluating the mental health of the community in health policies, and it can be a guide in the measures to be taken, while evaluating the dimensions of the effects of the pandemics on the society in general and the individual in particular. It is thought that it will also contribute to clinicians in their treatment processes.

This study has some limitations. The first limitation of the study is that the data were collected online. A comparison study with the data to be collected face to face is

recommended in terms of the comprehensiveness of the results. The second limitation is related to the period in which the data were collected. The period in which the data were collected is a period in which the pandemic is experienced intensely. The period difference may have lowered or increased the level of exposure of the people and changed the areas they were affected by. It is thought that there may be a difference between the first period of the pandemic and the following periods, especially in terms of perceived stress. In order to understand the lasting impact of the pandemic on people, it may be important to compare the existing studies and the studies to be carried out in the next period. Another limitation is the sample size. At the time of the study and data collection, it was difficult to reach the participants due to the pandemic so it was necessary to work with a more limited sample. Since the effect of the pandemic still continues and considering that the subject studied may be a trigger, the possibility of an impact on the data should not be ignored. For an epidemic that affects the whole world, a larger sample can provide healthier data collection. The last limitation is that the scale is based on self report.

CONCLUSION

It is seen that the COVID-19 pandemic is not just a health problem, it has effects in many areas. For these reasons, it is seen that the existence of a practical and detailed scale is necessary to find out how people are affected by the process. It is thought that this developed scale will contribute to the determination of in which areas and to what extent people are affected, and to the planning of the support to be given, to whom and how.

Ethics Committee Approval: Ethics committee approval was received from the Ethics Committee of Maltepe University (2021/07-12 dated March 05, 2021).

Informed Consent: Written informed consent was obtained from all participants who participated in this study.

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