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The Reliability and Validity of the COVID-19 Fatalism Scale in Turkish Language*

COVID-19 Kadercilik Ölçeğinin Türkçe Geçerlik ve Güvenirliği

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Öz

Aim: This methodological study aims to conduct a Turkish validity and reliability study of the COVID-19 Fatalism Scale.

Method: The population of the research consists of individuals aged 18 and over who are not infected with COVID-19. The number of items in the scale form was taken as the basis for determining the sample size. Random sampling method was used to determine the sample and the research was completed with 200 people. Two forms, the demographic introduction form and the COVID-19 Fatalism Scale, were used in the study. The data obtained were analyzed by explanatory and confirmatory factor analysis, internal validity coefficient, and with a %27 comparison of the upper and lower scoring participants.

Results: The content validity index of the scale presented to the expert panel was 0.98. It was determined that the factor loads of all items were over 0.30 and the explained variance was 58.03% in the analysis of the basic components; x^2/SD value varied between 1.06, GFI, AGFI, CFI fit index values ranged between 0.98-1.000, RMSEA value was 0.037, and SRMR value was 0.065 in the confirmatory factor analysis. Cronbach's α coefficient was determined to be 0.95.

Conclusion: It was concluded that the COVID-19 Fatalism Scale has a single-factor structure and is a valid and reliable measurement tool in the Turkish language, based on the evidence obtained from the explanatory and confirmatory factor analyses in the study.

Anahtar Sözcükler: Fatalism, covid-19, validity, reliability.

Abstract

Amaç: Bu metodolojik çalışma, COVID-19 Kadercilik Ölçeği'nin Türkçe geçerlilik ve güvenilirlik çalışmasını yapmayı amaçlamaktadır.

Yöntem: Araştırmanın evrenini 18 yaş ve üzeri COVID-19 geçirmeyen bireyler oluşturmaktadır. Örneklem sayısının belirlenmesinde, ölçek formunun madde sayısı dikkate alınmıştır. Örneklemin belirlenmesinde seçkisiz örneklem yöntemi kullanılmış ve araştırma 200 kişi ile tamamlanmıştır. Araştırmada, katılımcılar için tanıtım formu ve COVID-19 Kadercilik Ölçeği olmak üzere iki form kullanılmıştır. Elde edilen veriler, açıklayıcı ve doğrulayıcı faktör analizleri, iç geçerlilik katsayısı, en yüksek ve en düşük puan alan katılımcıların %27'lik karşılaştırmaları ile analiz edilmiştir.

Bulgular: Uzman görüşüne sunulan ölçeğin kapsam geçerlilik indeksi 0.98'dir. Temel bileşenlerin analizinde tüm maddelerin faktör yüklerinin 0,30'un üzerinde olduğu ve açıklanan varyansın %58,03 olduğu; doğrulayıcı faktör analizinde x^2/SD değeri 1,06, GFI, AGFI, CFI uyum indeksi değerleri 0,98-1,000, RMSEA değeri 0,037 ve SRMR değeri 0,065 olarak bulunmuştur. Cronbach's α katsayısı 0,95 olarak belirlenmiştir.

Sonuç: Araştırmada açıklayıcı ve doğrulayıcı faktör analizleri ile elde edilen kanıtlar sonucunda COVID-19 Kadercilik Ölçeği'nin tek faktörlü bir yapıya sahip olduğu ve Türkçe dilinde geçerli ve güvenilir bir ölçme aracı olduğu sonucuna varılmıştır.

Keywords: Kadercilik, COVID-19, geçerlilik, güvenilirlik.

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Introduction

Outbreaks, which are defined as the spread of a disease and its transmission to many people, have caused mass deaths throughout human history due to their rapid spread (Şimşek, 2020). The coronavirus outbreak, which is ongoing in Türkiye as well as all over the world, emerged in 2019 in the Hubei Province of the People's Republic of China and spread to many countries. There are 87,889,206 active coronavirus patients in the world and 2,317,118 active coronavirus patients in Türkiye (Republic of Türkiye Ministry of Health Data, 2021; World Health Organization [WHO], 2021). COVID-19, which causes symptoms such as fever, cough, and shortness of breath, affects not only the physical health of individuals but also the psychological health and well-being of the uninfected population in general (Wang et al., 2020). Currently, a complete treatment method for the disease has not been found, but the condition is tried to be kept under control with general epidemiological measures. These include measures such as isolation, quarantine, compliance with hygiene rules, filiation, and social distancing (Ferretti et al., 2020). Humanitarian factors are undoubtedly important for the success of these measures and practices, and fatalism is an important parameter that is present in all societies and affects health behaviors. The effect of these parameters can be positive or negative (Holt et al., 2003).

Many people have to interact with other people to go to work or shop, and they may be fatalistic, feeling that individual measures alone will not be enough, and these people may not take any measures. The idea that external factors cannot be prevented has become dominant, and they may have turned to fatalistic tendencies since the disease has been going on for a long time, people's self-efficacy perceptions have decreased. This is undoubtedly a factor that will contribute to the progression of the pandemic rather than to its containment. However, the need to clarify these assumptions is only possible with a valid measuring instrument that can measure fatalism.

Fatalism is defined as the belief that everything that happens in life is predetermined by the will of a supernatural power, that the predetermined fate will not change, that this fate cannot be overcome by effort, that this situation is an inevitable phenomenon of life and that people have no choice (Rougier and Gushue George, 2011; Sobol-Kwapinska, 2013). Fatalism has been a doctrine that expresses people's feelings of helplessness against supernatural forces since the early ages (Kasapoğlu, 2008). In studies on fatalism in international and national literature, it has been found that a high level of fatalistic tendency increases risk-taking behavior in adolescents (Haynie et al., 2014), and risk-taking, and reduces precautions in earthquake or traffic accidents (Kayani et al., 2011; Şimşekoğlu et al, 2013; Türküm, 2006), reduces disease-related information and precautions in AIDS patients (Haynie et al., 2014).

One of the conditions of being a Muslim is to believe in destiny. Most of the population in Türkiye is Muslim. Therefore, the concept of fatalism is a very common way of thinking due to the dominant cultural characteristics and the religious tendencies of the vast majority of the society (Macit, 2014). In fact, according to the results of the research on religiosity conducted within the framework of the International Social Survey Program (ISSP, 1998), it was found that half of the society in Türkiye adopted fatalism and believed that they could do little to change their own lives (Çarkoğlu and Kalaycıoğlu, 2009). Another study conducted in Türkiye found that elderly people, women, housewives, illiterates, married people, and individuals with chronic diseases had more fatalistic beliefs (Bobov and Çapık, 2020). Therefore, it is inevitable that individuals' fatalistic beliefs will affect their prevention efforts and management of the process in the ongoing combat against the COVID-19 pandemic. However, one of the most important obstacles here is the limited measurement tools related to fatalism. For example, the development and adaptation of fatalism measurement tools in cancer types such as breast, prostate, and colorectal cancers paved the way for many new studies in this field (Bobov and Çapık, 2020; Çapık et al., 2018; Ersin et al., 2018).

One of the duties of scientists is to find solutions to common diseases in society and to serve the society they live in. We think that this study also serves the same purpose. There is a global pandemic at the time of writing this article and ensuring the validity of the COVID-19 Fatalism Scale in the Turkish language, which is among the interests of the authors, may lead to new studies in this field. This scale can be used to obtain patterns of how effective fatalism is in displaying preventive health behaviors. The scale has the potential to direct the work of many health professionals, especially in the field of public health and psychiatry. This study aims to make the validity and reliability of the COVID-19 Fatalism Scale developed by Hayes and Clerk in 2020 in the Turkish language for all these reasons (Hayes and Clerk, 2020).

Method

Aim and Design: This methodological study was conducted between November 2020 and February 2021. A survey link was created via Google Surveys, and data were collected online across Türkiye through social media. Random sampling method was used to determine the sample. Permission was obtained from the authors and the ethics committee that

developed the scale before the data collection. The study was conducted in accordance with the Declaration of Helsinki at all stages. Informed consent forms were obtained from the participants, and it was explained to the patients that their participation was voluntary and that the data obtained would be used for scientific purposes. An ethics committee certificate was obtained from a local institution (2020-6/16).

Stages of the Research: The research was completed with the following stages:

- Translating the COVID-19 Fatalism Scale into Turkish Language and translating it back into English,
- Content validity testing by a group of experts,
- Psychometric analysis (factor analysis, validity coefficient, and item-total correlation).

Participants: Individuals aged 18-65 years, who did not have COVID-19 during the data collection phase, who were not diagnosed with psychiatric disease(s), and who used smartphones were included in the study. Since there were 16 items in the scale, the target was to have ten times more participants than this number (Tavşanel, 2019). The random sampling method was used to determine the sample, and the study was completed with 200 people. The sample size of the study is 12.5 times the number of items. In addition, people from almost all regions and cities in Türkiye participated in the study. The detailed characteristics of the participants are shown in Table 1.

Translation Process and Content Validity: The scale was back-translated into its original language after 4 academic nurses independently translated the COVID-19 Fatalism Scale into Turkish in the study. The process of translation into the original language was carried out by two independent academics working as lecturers in the Department of English Language and Literature. The native language of the translators is Turkish.

Content Validity: The scale was reviewed by an expert group consisting of ten nurse-midwife academicians after the translation process was completed. The experts, whose opinions were received via e-mail, examined the scale items in terms of comprehensibility and cultural suitability. The Davis method was used for the content validity based on expert opinions. The experts evaluated the items of the scale as non-compliant (1), needs appropriate revision (2), appropriate but needs slight change (3), and very appropriate (4) according to the Davis method, where quadruple grading was used. The total of the first two ratings was divided by the number of experts to obtain the content validity index (CVI). The content validity of an item is considered adequate if the CVI is greater than 0.80.

Pilot Application: The scale was piloted with 15 individuals who were asked to evaluate the items for clarity, fluency, and any other issues that caught their attention at that stage.

Data Collection Tools: Two forms, the demographic introduction form and the COVID-19 Fatalism Scale, were used in the study. *The demographic form* consists of 11 items asking about age, gender, educational status, marital status, income status, health insurance, occupation, chronic disease, and three items related to COVID-19. *The COVID-19 Fatalism Scale*, which was developed by Joseph Hayes and Laura Clerk in 2020, consists of 16 items and is a 7-point Likert type scale. Nine of the scale items (2, 3, 5, 6, 7, 8, 11, 12, 15) are reverse coded. The increase in the score obtained from the scale shows that fatalism has increased. The scores that can be obtained from the scale range from 16 to 112 since there are 16 items in the scale. The scale has a single-factor structure, no sub-scales, and can be filled out in 5 to 10 minutes. This scale is suitable for all social classes. The authors who developed this scale tried to determine a pattern between COVID-19 fatalism and preventive health behaviors. Thus, they sought be helpful by evaluating the potential and cognitive barriers in the access to health services and adopting healthy life practices (Hayes and Clerk, 2020).

Evaluation of the Data: The data were analyzed using SPSS for Windows 22 package software and LISREL 8.80 package software. Numbers, percentages, minimum and maximum values, means and standard deviations, as well as the Davis method, sample adequacy and suitability of the data set for factor analysis, KMO and Bartlett's tests, explanatory factor analysis, confirmatory factor analysis, and Cronbach's α coefficient, item-total correlation, and lower and upper 27 percentile comparisons were used in the analysis of the data as mentioned above in the content validity. A "p" value less than 0.05 was accepted statistically significant. 12 individuals were excluded from the analysis due to inconsistencies in their answers in the study.

Ethical Aspect of the Research: In order to conduct the study, Atatürk University Faculty of Nursing Ethics Committee approval was received (Date: 11.12.2020 - Issue: 2020-6/16). Permission to use the scales was obtained from their developers via email. Written informed consent was obtained from the participants of the study.

Limitations of the Research: The continuation of the pandemic period limited data collection and prevented us from reaching more participants and collecting data face-to-face . Therefore, the advantages of face-to-face data collection could not be utilized in this study. The expressions of the individuals were also used in the scale, as in all scales relying on subjective reporting. Another limitation was the inability to perform testing and retesting due to online data collection.

Results

Table 1. Distribution of descriptive characteristics of the participants (N:200)

		n	%
Gender	Men	96	48.0
	Women	104	52.0
Education	Illiterate	28	14.0
	Primary school	67	33.5
	Secondary school	35	17.5
	High school	28	14.0
	University +	42	21.0
Profession	Unemployed	6	3.0
	Housewife	65	32.5
	Officer	47	23.5
	Worker	28	14.0
	Artisan	11	5.5
	Self employed	8	4.0
	Farmer	11	5.5
	Retired	24	12.0
Marital status	Married	153	76.5
	Single	47	23.5
Income	Income less than expenses	68	34.0
	Equal income and expenses	106	53.0
	Income more than expenses	26	13.0
Health insurance	Yes	190	95.0
	No	10	5.0
Those who have had covid-19 before	Yes	65	32.5
	No	135	67.5
Household who have had covid-19 before	Yes	77	38.5
	No	123	61.5
Death of a familiar person due to covid-19	Yes	52	26.0
	No	148	74.0
Chronic disease	Yes	91	45.5
	No	109	54.5

	n	Min-Max	Mean	SD
Age	200	30-81	52.80	11.66

In this research, 52% of the participants were male, 33.5% were primary school graduates, 32.5% were homemakers, and 76.5% were married. More than half of the participants had an income equal to their expenses and 95% had health insurance. In addition, 67.5% of the participants previously had COVID-19, 61.5% had no individuals in the household who had COVID-19, and 74% had no acquaintances who died of COVID-19. In addition, 54.5% of the participants had no chronic diseases and the mean age was 52.80 (SD=11.66) years (Table 1).

The scale was examined in 3 different ways: content validity, construct validity, and internal validity in order to determine whether the COVID-19 Fatalism Scale is valid and reliable in the Turkish language in this study.

Results on Content Validity: After completing the translation process for the COVID-19 Fatalism Scale, which had its validity and reliability assessed, the scale was first reviewed by 10 experts to evaluate content validity, including cultural equivalence. The CVI scores of the items of the COVID-19 Fatalism Scale, which was evaluated for content validity using the Davis method, ranged from 0.8-1.0 based on expert opinions. Therefore, no items were excluded from the scale in terms of scope/content validity, and the pilot application was started.

Pilot Application: Whether there were any difficulties or incomprehensible items on the scale, which was piloted on fifteen individuals, was evaluated. However, there was no need for correction by the participants or the researchers at that stage.

Construct Validity Results: Explanatory and confirmatory factor analyses were performed to determine the construct validity of the COVID-19 Fatalism Scale in order to obtain clearer results in the study after content validity and pilot application. Kaiser-Meyer-Olkin (KMO) and Bartlett's tests were used to evaluate the adequacy of the sample and the suitability of the data for factor analysis before the explanatory factor analysis. The KMO value was found to be 0.942 and this value showed the suitability for the analysis of the basic components at this stage. Similarly, the results of Bartlett's test (x^2=2586.90, p<0.001) showed that the data were correlated with each other and suitable for factor analysis.

Table 2. Factor analysis results of the COVID-19 fatalism scale

		Factor load
1	Since whatever will be will be, it doesn't really matter what I do to try to stop covid-19.	0.752
2	My actions can contribute to stopping the spread of covid-19.	0.841
3	Staying home can make all the difference in the fight against covid-19.	0.697
4	I often feel that there is no point in even trying to stop the spread of covid-19.	0.814
5	I can help to stop the spread of covid-19.	0.874
6	I believe that helping to stop covid-19 is within my control.	0.808
7	I have the ability to make decisions that will reduce the spread of covid-19.	0.845
8	What I do now to fight covid-19 matters in the long run.	0.757
9	When thinking about tackling covid-19, I often think “why bother?”.	0.795
10	It doesn't make sense to worry about covid-19 because there is nothing that I can do about it anyway.	0.831
11	It is within my power to help reduce the spread of covid-19.	0.876
12	My actions will make a difference in reducing the death-toll from covid-19.	0.780
13	Social distancing is NOT a good way to fight covid-19.	0.625
14	There is no effective way to stop covid-19 from spreading.	0.680
15	Forcing people who are not sick into self-isolation will reduce the spread of covid-19.	0.569
16	The spread of covid-19 is controlled by forces that I cannot influence.	0.532
Explained variance (%)		58.03

Anti-image correlations of the scale items were also examined to assess whether the data set was suitable for explanatory factor analysis (Table 2). All items met the sample adequacy criterion as shown in the table.

The items, factor loads, and the explained variance of the COVID-19 Fatalism Scale are shown in Table 2. It is seen that the COVID-19 Fatalism Scale is compatible with the one-dimensional structure, similar to the original structure as can be seen in Table 3. The factor loads of all items of the scale are over 0.40 and the explained variance is 58.03% (Table 2). Therefore, no items were excluded from the scale at this stage and a one-dimensional structure was accepted. Structural equation modeling was then established with confirmatory factor analysis in order to obtain more precise results after the explanatory factor analysis.

Table 3. Total item correlations of the COVID-19 fatalism scale and Cronbach's α coefficients

	Items	n	Mean	SD	Item–total correlation	When the item is deleted Cronbach's α
1	Since whatever will be will be, it doesn't really matter what I do to try to stop covid-19.	200	3.83	2.14	0.715	0.948
2	My actions can contribute to stopping the spread of covid-19.	200	3.38	1.95	0.807	0.946
3	Staying home can make all the difference in the fight against covid-19.	200	2.70	1.78	0.651	0.949
4	I often feel that there is no point in even trying to stop the spread of covid-19.	200	3.08	1.98	0.784	0.946
5	I can help to stop the spread of covid-19.	200	3.73	1.94	0.843	0.945
6	I believe that helping to stop covid-19 is within my control.	200	4.52	2.16	0.771	0.946
7	I have the ability to make decisions that will reduce the spread of covid-19.	200	4.51	2.18	0.811	0.946
8	What I do now to fight covid-19 matters in the long run.	200	3.78	1.86	0.708	0.948
9	When thinking about tackling covid-19, I often think "why bother?".	200	3.86	2.03	0.767	0.946
10	It doesn't make sense to worry about covid-19 because there is nothing that I can do about it anyway.	200	3.97	2.09	0.804	0.946
11	It is within my power to help reduce the spread of covid-19.	200	4.18	2.15	0.847	0.945
12	My actions will make a difference in reducing the death-toll from covid-19.	200	3.74	1.75	0.737	0.947
13	Social distancing is NOT a good way to fight covid-19.	200	2.61	1.76	0.585	0.950
14	There is no effective way to stop covid-19 from spreading.	200	4.13	2.14	0.640	0.949
15	Forcing people who are not sick into self-isolation will reduce the spread of covid-19.	200	3.05	1.80	0.526	0.951
16	The spread of covid-19 is controlled by forces that I cannot influence.	200	5.05	1.69	0.493	0.952
Cronbach's α						**0.951**

Table 3 shows the item averages of the COVID-19 Fatalism Scale, the item-total correlations, and the Cronbach's α coefficients if the item is deleted. The Cronbach's α coefficient of the total COVID-19 Fatalism Scale is 0.951. The item-total correlations of the scale are positive for all items and removing any item does not cause a significant increase in the Cronbach's α coefficient. Therefore, no items were excluded from the scale at that stage (Table 3).

Comparing the lower and upper 27 percentiles of the COVID-19 Fatalism Scale, it was found that the mean score of the lower 27 percentile was 30.46 and the mean score of the upper 27 percentile was 90.39 (SD=8.18), and this difference was statistically significant (t=-45.741, p=0.000). This result is an indication of the differentiating power of the scale.

Participants received a mean score of 60.08 (SD=23.88) on the COVID-19 Fatalism Scale, and the scores ranged from 19 to 112. The participants scored the lowest on the item "Social distancing is not a good way to combat COVID-19" and the highest on the item "The spread of COVID-19 is controlled by the forces I cannot affect" (Table 3).

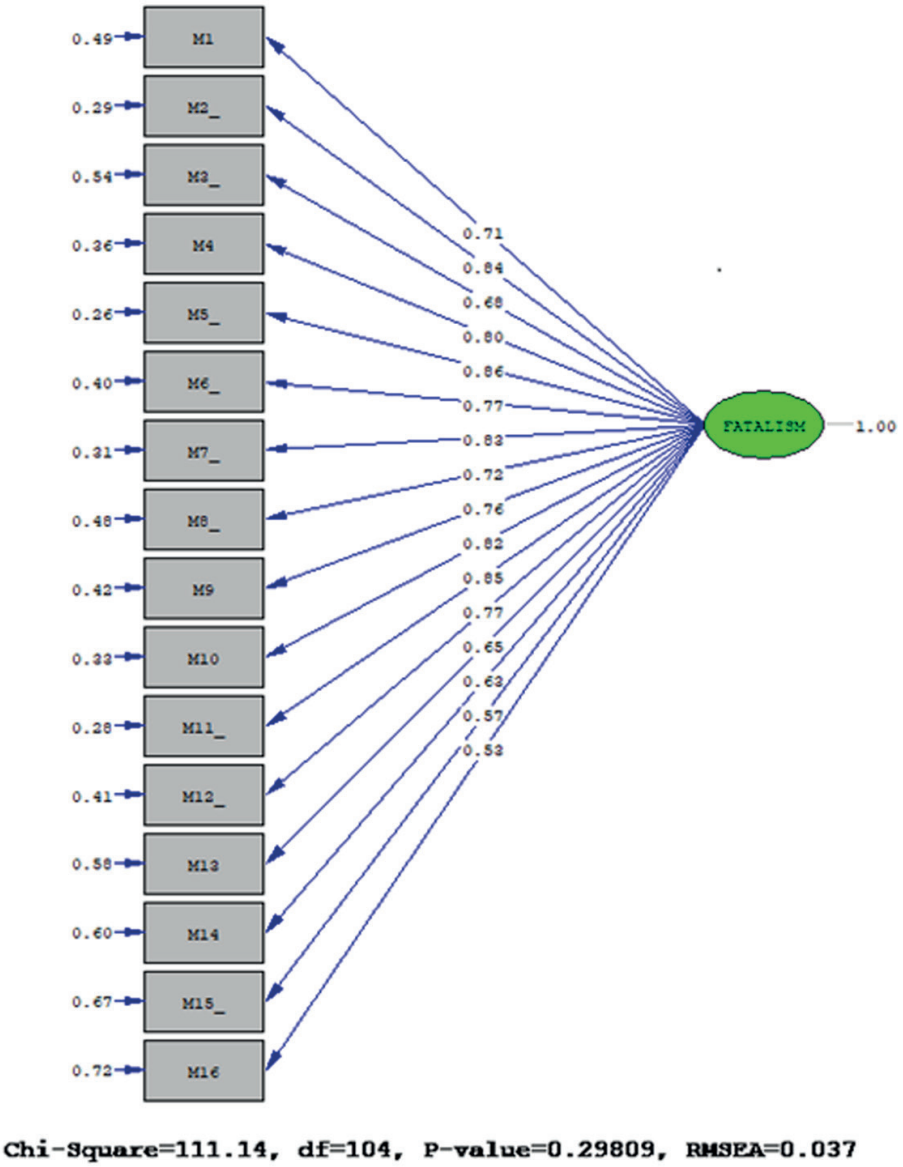

Figure 1. PATH Diagram of COVID-19 Fatalism Scale Turkish Version

Results on Confirmatory Factor Analysis: Many indices were used to examine the fit of the model of the COVID-19 Fatalism Scale. Of these, x^2/SD value was determined as 1.06, GFI as 0.99, AGFI as 0.98, CFI as 1.00, RMSEA as 0.037, and SRMR as 0.065. It was decided that the model as such was acceptable based on the related fit index values. Figure 1 shows the sub-scales for the COVID-19 Fatalism Scale and the factor loads of the items as a path diagram. The model was accepted as it was in its original structure without any modification, as shown in Figure 1. The factor loads of the model range from 0.53 to 0.86 and the t-value of all items is above 1.96 (2.49-10.90). No modifications were made to improve the model.

Discussion

This research aimed to conduct a validity and reliability study of the COVID-19 Fatalism Scale and thus to conduct new studies on fatalism in Turkish society. It is a frequently used technique to translate the scales created for certain target groups into a different language and adapt them to a new culture (Karaçam, 2019). It is recommended in the literature that two or more independent people who know the source language of the scale and the cultural and linguistic characteristics of the target language well. Then, a translation method is applied by an expert who does not know the original version of the scale and it is finalized according to the expert opinions (Güngör, 2016; Karaçam, 2019). The content validity of the scales included in the expert panel is performed with the Davis method. The Content Validity Index (CVI) score is determined with the scores obtained according to this method. The calculated content validity index is expected to be >0.80 in a panel of 10 experts (Esin, 2014; Taşkın and Akat, 2010). The COVID-19 Fatalism Scale was e-mailed to 10 experts who had experience in scale development or adaptation studies working in the field of nursing in this study. It was determined that one item had a score of 0.8, one item had a score of 0.9, and the remaining 14 items had a full score (1.0) as a result of the evaluation. No items were excluded from the scale since all items in the scale meet the requirement of >0.80 specified in the literature.

Factor analysis is one of the most commonly used methods to show construct validity (Esin, 2014; Karakoç and Dönmez, 2014). Factor analysis is performed with two different methods, which are explanatory factor analysis and confirmatory factor analysis (Esin, 2014; Kılıç and Koyuncu, 2017). The higher the variance explained in the factor analysis, the better it is thought to measure the relevant behavior or dimension (Özdamar, 2016). Factor loads are recommended to be 0.30 and above (Carter et al., 2014; Yılmaz et al., 2017). As a result of the factor analysis conducted in this research, it was determined that the scale has a single-factor structure. It was determined that the factor loads of the items varied between 0.53 and 0.88 and the explained variance was 58.03% at the same time (Table 2). These results were interpreted as the scale showing desirable characteristics in explanatory factor analysis.

Confirmatory factor analysis (CFA) is another construct validity analysis that examines whether the data obtained are consistent with the theoretical structure. The results of the fit index obtained as a result of the analysis show the suitability of the model to the theory. The chi-square value is expected to be two or less when divided by the degrees of freedom, when the fit index results are examined. GFI, AGFI, and CFI values are between 0 and 1. These index results are considered normal if they have a value above 0.95. AGFI value is interpreted as an acceptable fit between 0.80 and 0.89 (Çapık et al., 2018; Tavşanel, 2019). If RMSEA has a value less than 0.05, it corresponds to normal, and if it has a value less than 0.08, it corresponds to an acceptable fit (Çapık et al., 2018; Esin, 2014; Little, 2013). x^2/SD value was determined to be within the ranges evaluated as normal as 1.06, GFI as 0.99, AGFI as 0.98, CFI as 1.00, RMSEA as 0.037, and SRMR as 0.065 when we consider the fit indices of the COVID-19 Fatalism Scale (Figure 1). The path diagram and associated t-values obtained as a result of confirmatory factor analysis were also examined. If the t-values obtained are above 1.96, it is thought to be significant at the 0.05 level (Çapık et al., 2018). It was found that all values were greater than 1.96 when the path diagrams and t-values of the scale were examined. It was concluded that there is a statistically significant relationship between the items and factors of the COVID-19 Fatalism Scale at the 0.05 level. It was concluded that the COVID-19 Fatalism Scale provided the necessary construct validity when the analyses were examined.

Reliability is a feature required for the standardization of measurement tools. A scale is considered useless and its scientific value is low if it does not provide reliability (Esin, 2014). Internal validity analysis was performed to ensure the reliability of the COVID-19 Fatalism Scale. The most commonly used method is Cronbach's α Reliability Coefficient method in determining the internal consistency of Likert-type scales. It is used to check the homogeneity of each item and sub-scale in the scale. The higher the Cronbach's α value in the scale, the more consistent the items of the scale are with each other and the more homogeneous the items are in terms of the characteristics to be measured. The value found has no reliability if it is between 0 and 0.40, low reliability if it is between 0.40 and 0.60, medium reliability if it is between 0.60 and 0.80, and high reliability if it is between 0.80 and 1.00 (Çapık et al., 2018; Esin, 2014; Karaçam, 2019; Tavşanel, 2019). The Cronbach's α coefficient of the original scale discussed in this research is 0.94. The value obtained in our study is 0.951, and this value indicates that the scale is highly reliable (Table 3).

The item-total score correlation was examined as another method of evaluating internal consistency. With this method, it is decided whether to make a change when evaluating the suitability of each item in the scale. It is emphasized that they should be 0.30 and above, even though the correlation coefficients are different in the literature (Çapık et al., 2018; Esin, 2014). The item-total score correlation ranged from 0.45 to 0.73 in the original study, while in this study, the item-total score correlation values of the scale were found to be between 0.493-0.847 (Table 3). It was decided to keep the items in the scale as they were since these values are above the 0.30 specified in the literature.

It is necessary to determine the upper and lower groups in order to calculate the difficulty index of the items. In this method, the total scores obtained from the measurement tool are sorted from the highest to the lowest. Lower and upper groups are determined by taking the 27 percentiles of the respondents with the highest success and the lowest success (Hasançebi et al., 2020). The upper and lower 27 percentile groups were compared and it was determined that both groups received statistically different scores in this study. Therefore, this result ensured that the scale is distinctive.

Conclusion and Recommendation

In conclusion, the scale is single-factor in the Turkish Language as in its source language, has no sub-scales, and consists of 16 questions. Construct validity and internal validity results show that the COVID-19 Fatalism Scale is a valid and applicable scale for the Turkish society. It is recommended that its internal validity be reanalyzed and its suitability for sampling be evaluated each time the scale is applied. Turkish and English equivalents of the items are given in Appendix 1.

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Appendices

Appendix 1. Turkish and English equivalents of the items of the scale

1.	**Since whatever will be will be, it doesn't really matter what I do to try to stop covid-19.** Ne yaparsam yapayım Covid-19'u durdurmaya bir etkisi olmaz.
2.	**My actions can contribute to stopping the spread of covid-19.** Yaptıklarım Covid-19'un yayılmasını durdurmaya katkıda bulunabilir.
3.	**Staying home can make all the difference in the fight against covid-19.** Evde kalmak, Covid-19'a karşı mücadelede büyük fark yaratabilir.
4.	**I often feel that there is no point in even trying to stop the spread of covid-19.** Covid-19'un yayılmasını durdurmaya çalışmak bile gereksizdir.
5.	**I can help to stop the spread of covid-19.** Covid-19'un yayılmasını durdurmaya yardımcı olabilirim.
6.	**I believe that helping to stop covid-19 is within my control.** Covid-19'u durdurmaya yardımcı olmanın benim kontrolümde olduğuna inanıyorum.
7.	**I have the ability to make decisions that will reduce the spread of covid-19.** Covid-19'un yayılmasını azaltacak kararları alabilirim.
8.	**What I do now to fight covid-19 matters in the long run.** Covid-19 ile mücadele etmek için yaptığım şeyler uzun vadede önemlidir.
9.	**When thinking about tackling covid-19, I often think "why bother?".** Covid-19 ile mücadele ederken, sık sık "neden zahmet edeyim?" diye düşünüyorum.
10.	**It doesn't make sense to worry about covid-19 because there is nothing that I can do about it anyway.** Covid-19 hakkında endişelenmek mantıklı değil çünkü bu konuda yapabileceğim hiçbir şey yok.
11.	**It is within my power to help reduce the spread of covid-19.** Covid-19'un yayılmasını azaltmaya yardımcı olmak benim elimde.
12.	**My actions will make a difference in reducing the death-toll from covid-19.** Yaptıklarım, Covid-19'dan ölenlerin sayısını azaltmada bir fark yaratacaktır.
13.	**Social distancing is NOT a good way to fight covid-19.** Sosyal mesafe Covid-19 ile mücadelede iyi bir yol değildir.
14.	**There is no effective way to stop covid-19 from spreading.** Covid-19 için yayılmayı durduracak etkili bir yol yoktur.
15.	**Forcing people who are not sick into self-isolation will reduce the spread of covid-19.** Hasta olmayan insanları kendini izole etmeye zorlamak Covid-19'un yayılması azaltacaktır.
16.	**The spread of covid-19 is controlled by forces that I cannot influence.** Covid-19'un yayılması, etkileyemediğim güçler tarafında kontrol ediliyor.