

Clarifying the Mediation Role of Social Media Addiction in the Association between COVID-19 Risk Perception and Mental Well-Being among General Population in Türkiye

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Abstract

In current paper, the associations among COVID-19 risk perception, social media addiction, and mental well-being was examined. Additionally, the mediation role of social media addiction in the association between COVID-19 risk perception and mental well-being was explored. Through snowball and criterion sampling method, data were collected from 59 males (19%), 248 females (80%) and 3 (1%) individuals who did not want to specify their gender. The ages of the individuals included in the sample ranged from 18 to 75 ($M = 26.28$, $SD = 9.40$). According to the correlation analysis findings, there were significant associations among COVID-19 risk perception, social media addiction and mental well-being. Mediation analysis revealed that social media addiction had a mediation role in the association between COVID-19 risk perception and mental well-being. Research findings revealed the potential impact of COVID-19 risk perception and social media addiction on mental well-being.

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Introduction

In addition to the treatment of emerging psychopathologies, the process should be handled with great care in order to prevent psychopathologies that have not yet occurred. The world is currently dealing with a pandemic medically and will fight against the psychopathologies that arise or may arise with the help of pharmacological and psychotherapy. There is a point to be emphasized here, and positive psychology was born precisely from this point of view. What about the undiagnosed individual? In addition to the traditional psychopathology-oriented perspective, positive psychology focuses on enhancing well-being by focusing on the competencies, potential and latent powers of the individual (Seligman & Csikszentmihalyi, 2000). The theoretical structure about well-being is quite evident. Various components of well-being have been mentioned in the related literature. While the hedonist perspective was more concerned with subjective well-being, the oedonomic perspective was more related with psychological functionality and was called psychological well-being (Diener, 2006). The dependent variable of this study was psychological well-being. Psychological well-being focuses on activating the potential of the individual to realize himself/herself and find the meaning of life against to difficulties (Ryff & Singer, 2008). From this perspective, psychological well-being might be considered as an extremely important concept in the pandemic days. Unfortunately, many people around the world do not leave their homes due to precautions such as social isolation, quarantine and curfews. In addition to precautions, people who do not want the virus to infect them stay at home. Various changes have occurred in behavior among individuals during staying at home.

The effects of excessive use of the Internet on individuals were well known. While there were positive and significant associations between excessive internet use and psychopathological symptoms (Guo et al., 2019; Kumar et al., 2019; Vally et al., 2020), it was negatively associated with positive psychology dimensions such as positivity, life satisfaction, subjective well-being, psychological well-being (Çıkrıkçı, 2019; Gheitaran et al., 2019; Odacı & Çıkrıkçı, 2014; Turan et al., 2020). Similarly, there were negative associations between social media use and life satisfaction (Hawi & Samaha, 2017), subjective well-being (Gerson et al., 2016) and psychological well-being (Lee et al., 2014). The results of these studies could refer that social media addiction has a disruptive effect on these positive structures. It was stated that the basis of this negative interaction may be related to negative reinforcement processes in control mechanisms (Brand et al., 2014). Individuals who cannot be sufficiently active in the reinforcement processes may overuse the internet or social media. The assumptions of the cognitive behavioral model may be valid for the etiology of the deficiencies in the control processes. According to this model, dysfunctional behaviors and maldaptive cognitions accompanying these behaviors may lead individuals to use internet excessively (Caplan, 2002, 2010).

The theoretical basis of this research was the cognitive behavioral model. In present study, the COVID-19 risk perception was determined as an independent variable. During the pandemic period, interest in studies on risk perception (Hodžiü et al., 2020) and risk taking (Egeli et al., 2021) has increased. COVID-19 risk perception can lead individuals to use social media for different purposes. Obtaining information about the pandemic, avoiding the intense emotions created by the pandemic and awareness, and spending time in the social isolation process can be among these purposes. The recent studies stating that social media was used more and for different purposes during COVID-19 pandemic (Boursier et al., 2020; Primo, 2020). For instance, even social media posts were changed during the pandemic. People tend to share familiar thoughts and feelings. Overall, it could be concluded that the survival seems to have brought people together throughout social media (Kaya, 2020). Therefore, the processes that lead individuals to use social media, such as the reasons for using social media during the social isolation or quarantine process, may also differ. It was assumed that COVID-19 risk perception may also have an impact on individuals' use of social media. These evaluations were thought to have an explanatory role not only on social media use but also on psychological well-being. Because, the individuals, who are aware of the risk of the COVID-19 virus, may reduce their positive perceptions or not fully exhibit potential due to limiting life. Lack of being able to act autonomously and independently in this process may make it difficult for the individual to act in line with the meaning of life. It can be stated that the negative cognitions, affective and behavioral structures may be the factors that prevent the development of psychological well-being. Social media addiction was determined as the mediator variable in present study. The mediator variable absorbs the explanatory role of the independent variable on the dependent variable due to its structure. In other words, since the mediator variable is included in the model, the explanatory role of the independent variable on the dependent variable decreases or disappears (Baron & Kenny, 1986). In current paper, a theoretical model was proposed that COVID-19 risk perception may lead to a positive increase in social media addiction and that social media addiction may lead to a decrease in mental well-being. The determination of the effects of COVID-19 risk perception on mental well-being throughout social media addiction represents the originality and novelty of the current research. The aim of this study was to examine the mediating role of social media addiction in the association between COVID-19 risk perception and mental well-being.

Method

Sample

Snowball and criterion sampling method was determined. Measures were planned as online questionnaire. The online questionnaire was shared through google forms. In addition to that, the link was shared with people accessible by the researcher via e-mail, Instagram, and WhatsApp. Shared people were asked to share the link of the online questionnaire with other participants who are over 18 years of age. Living in Turkey (i), to be 18 years of age and over (ii) and to comply with the rules of social isolation (iii) were the criteria for being included

in the sample. Among these criteria, it is appropriate to explain the rules of social isolation process. Full-time quarantine was not applied for whole society in Turkey. Government officials and experts were instructing the whole community to stay in your home and follow social isolation. The social isolation process indicates that individuals stay at home voluntarily and thus the physical distance / contact between other people is reduced. Therefore, we call this process as social isolation.

The sample was composed of 310 participants. Additionally, the sample consisted of 59 males (19%), 248 females (80%) and 3 (1%) individuals who do not want to specify their gender. The ages of the sample ranged from 18 to 75 ($M_{age} = 26.28$, $SD = 9.40$). While there were 28 (9%) chronic patients in the sample, there were 35 (11.3%) participants received a psychiatric diagnosis before. The majority of the sample ($n = 193$, 62.3%) mostly followed the news about the COVID-19 pandemic on the internet. Furthermore, it was determined that 37.3% of the sample followed the news about the COVID-19 pandemic on television. The average of daily internet usage times was 5.28 hours ($SD = 2.73$).

Ethical Consideration and Procedure

A number of ethical procedures were applied in all processes of the study (American Educational Research Association, 2011; American Psychological Association, 2020). Ethical processes recommended by the American Psychological Association (APA, 2020) were operated. Participation in the study was completely voluntary. Each individual participating in the study declared that he/she has read and understood the notification form regarding the purpose of the research and how the it was conducted and approved voluntary participation. No descriptive information was requested regarding the participants. Much attention was paid to the privacy, reputation and rights of the participants. Participants were assured that they can leave the study at any stage of the study if they wish. I had the analysis and reporting processes carried out in line with the principle of transparency and prepared a qualified and responsible publication in line with the publication ethics. The research data were collected through online questionnaire. The researcher prepared online forms and the link related to these forms were shared with the sample. It took approximately 20 minutes for a participant to evaluate online questionnaires. The data collection process took 7 days in total.

Measures

The Risk Perception of COVID-19 Scale (RPCV-19S)

RPCV-19S was developed within the scope of this study in order to determine the level of evaluation of the dangerousness of the COVID-19 virus by individuals. While writing the items, the H1N1 Perception Scale, which aims to determine the perceptions about swine flu, was used by Çırakoğlu (2011). The RPCV-19S consisted of 7 items. It was a self-report based five-point Likert-type (1 = strongly disagree... .5 = strongly agree). The high scores obtained from the RPCV-19S with no reverse items indicates the high level of COVID-19 risk perception. Single factor structure explained 48.94% of the total variance. As a result, RPCV-19S consisted of seven items and it was concluded that item factor loads range between $\lambda = .54$ and $\lambda = .79$. Within the scope of the construct validity of the RPCV-19S, confirmatory factor analysis was applied. According to

the confirmatory factor analysis results, the single-factor model indicated excellent fit to the data: $\chi^2 = 23.49$, $df = 12$, $\chi^2 / df = 1.96$; $GFI = .978$, $CFI = .986$, $AGFI = .950$, $TLI = .971$, $SRMR = .034$, $RMSEA = .056$ 90% Bca [.020, .089]. The standardized factor loads of the items varied between $\lambda = .45$ and $\lambda = .75$. After completing the validity analysis of RPCV-19S, the reliability analysis was performed. The reliability of RPCV-19S was determined by Cronbach Alpha internal consistency coefficient and the McDonald Omega coefficient. Accordingly, the Cronbach Alpha value of the RPCV-19S was calculated as $\alpha = .82$ and the McDonald Omega coefficient as $\omega = .83$ (Appendix).

Bergen Social Media Addiction Scale (BSMAS)

BSMAS was developed to measure social media addiction (Andreassen et al., 2016). It consisted of six items that reflect the essence of addictive elements (Griffiths, 2005). It was a self-report five-point Likert-type measure (1 = very rarely... 5 = very often). The high scores obtained from the BSMAS indicate a high level of social media addiction. Example item: "How often during the last year have you tried to cut down on the use of social media without success?". Demirci (2019) adapted BSMAS into Turkish. The construct validity of the Turkish form was tested by confirmatory factor analysis. According to the CFA results, the single factor model showed acceptable fit to the data ($CFI = 0.99$, $TLI = 0.99$, $SRMR = 0.031$; $RMSEA = 0.039$). The internal consistency coefficient of the BSMAS Turkish version was determined as .82 and .83 in two different samples (Demirci 2019). In current study, the validity and reliability of the BSMAS were re-tested ($N = 310$). As a result of the CFA performed for the purpose of construct validity, it was determined that the single factor model indicated excellent fit to the data ($CFI = 0.99$, $TLI = 0.98$, $SRMR = 0.023$; $RMSEA = 0.052$). Reliability analysis was carried out with the internal consistency coefficient and the Cronbach Alpha coefficient was calculated as $\alpha = .84$.

Warwick-Edinburgh mental well-being scale (WEMWBS)

WEMWBS was developed to determine the mental well-being (Tennant et al., 2007). WEMWBS consisted of 14 items. The items of the WEMWBS included psychological and subjective well-being. It was a self-report-based five-point Likert-type measure (1 = strongly disagree... 5 = totally agree). Example item: "I've been feeling good about myself". Keldal (2015) adapted WEMWBS into Turkish. The construct validity of the Turkish form was tested by confirmatory factor analysis. According to the CFA results, the single factor model showed good fit to the data ($CFI = 0.96$, $NNFI = 0.95$, $RMR = 0.54$). The internal consistency coefficient of WEMWBS Turkish version was determined as .92 (Keldal, 2015). In current study, the validity and reliability of the WEMWBS were re-tested ($N = 310$). As a result of the CFA performed for the purpose of construct validity, it was determined that the single factor model showed acceptable fit to the data ($CFI = 0.91$, $TLI = 0.89$, $SRMR = 0.052$; $RMSEA = 0.09$). Reliability analysis was performed using the internal consistency coefficient and the Cronbach Alpha coefficient was calculated as $\alpha = .93$.

Analytical Approach

In this research, firstly, the psychometric properties of RPCV-19S were investigated. After the RPCV-19S was determined to be valid and reliable, the procedures for mediation analysis were carried out. For this purpose, the associations between variables were examined using the Pearson Product of Moments Correlation Coefficient technique. SPSS Process Macro (Model 4) application was used for mediation analysis (Hayes, 2018). Model 4 allows the determination of how the effect of the independent variable on the dependent variable varies based on the mediator variable. SPSS 24.0 and Amos 24.0 software were used for the analysis of the study.

Results

Preliminary Analysis

As seen in Table 1, COVID-19 risk perception associated with social media addiction ($r = .30, p < .01$; 95%CI [.18, .41]) and mental well-being ($r = -.14, p < .05$; 95%CI [-.25, -.03]). Additionally, a significant relationship was found between social media addiction and mental well-being ($r = -.26, p < .01$; 95%CI [-.38, -.14]). Results of correlational analysis were presented in Table 1.

Table 1. Zero-order correlations among study variables

	M	SD	1	2	3
MWB (1)	53.89	10.20	1		
SMA (2)	15.03	5.61	-.26**	1	
RPCV (3)	15.44	4.40	-.14*	.30**	1

Note. N = 310. ** $p < .01$, * $p < .05$. Bootstrapping process was confirmed with 10.000 bootstrap samples. MWB = Mental Well Being, SMA = Social Media Addiction, RPCV = Risk Perceptions of COVID-19

Mediation Analysis

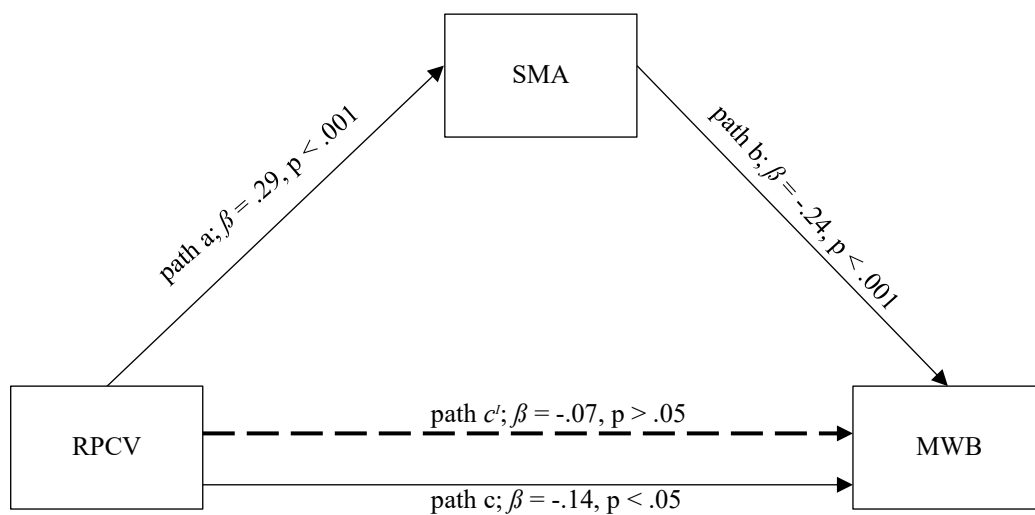
PROCESS macro (Model 4) was used to determine the mediation role of social media addiction in the association between COVID-19 risk perception and mental well-being. When the standardized regression coefficients were examined, the total effect of COVID-19 risk perception on mental well-being was found to be significant ($\beta = -.14, SE = .13, t_{(309)} = -2.49, p < .05, 95\%CI [-.58, -.07]$, path c, Step 1). Additionally, COVID-19 risk perception was found a significant predictor of social media addiction ($\beta = .29, SE = .07, t_{(309)} = 5.47, p < .001, 95\%CI [.24, .51]$, path a, Step 2). After determining the explanatory role of the independent variable on the dependent variable and the mediator variable, the explanatory role of the mediator variable on the dependent variable was examined. Accordingly, social media addiction was a significant predictor of mental well-being ($\beta = -.24, SE = .10, t_{(308)} = -4.10, p < .001, 95\%CI [-.64, -.22]$, path b, Step 3). At the last stage of the mediation analysis, the mediator variable was included in the model and the explanatory role of the independent variable on the dependent variable was re-evaluated. When social media addiction was included in the model, it was determined that there was no significant relationship between COVID-19 risk perception and mental well-being ($\beta = -.07, SE = .13, t_{(308)} = -1.22, p > .05, 95\%CI [-.42, .10]$, path c', Step

4). Therefore, the association between COVID-19 risk perception and mental well-being had fully mediated by social media addiction (Table 2). In other words, there was a significant indirect effect of COVID-19 risk perception on mental well-being through social media addiction ($ab = -.16$, 95% CI [-.28, -.06]) (Fig 1).

Table 2. Direct and indirect effects

Model pathways	Effect	95% BCa		S.E	C.R.
		Lower	Upper		
Direct effect					
RPCV → SMA	.29	.24	.51	.07	5.47**
SMA → MWB	-.24	-.64	-.22	.10	-4.10**
RPCV → MWB	-.14	-.58	-.07	.13	-2.49*
Indirect effect					
RPCV → SMA → MWB	-.16	-.28	-.06	---	---

Note. N = 310. **p < .01, * p < .05. Bootstrapping process was confirmed with 10.000 bootstrap samples. MWB = Mental Well Being, SMA = Social Media Addiction, RPCV = Risk Perceptions of COVID-19



Note. MWB = Mental Well Being, SMA = Social Media Addiction, RPCV = Risk Perceptions of COVID-19

Figure 1. Mediation of social media addiction in the association between risk perceptions of COVID-19 and mental well-being with standardized beta values.

Discussion

In present study, the mediation role of social media addiction in the association between the COVID-19 risk perception and mental well-being was examined. Correlational analysis revealed that there were significant association between the COVID-19 risk perception and mental well-being. The results showed that the COVID-19 risk perception is a significant predictor of mental well-being. This finding suggested that an

increase in the COVID-19 risk perception may lead to a decrease in mental well-being. In other words, individuals who can evaluate the COVID-19 outbreak from different aspects may decrease their mental well-being. Various factors may have been effective in the formation of this finding. First of all, individuals who can evaluate the risk rationally can consider the social isolation and quarantine process as an obstacle to self-realization. Ryff (2013) emphasized the importance of self-actualization in the development of well-being. From the existential point of view, self-actualization tendency is regarded as the representative of a function related to the existence of the psychological health among individuals who lives an active life (Shutenko, 2014).

An individual who is deprived of active life due to the COVID-19 pandemic may not exhibit the potential of self-realization during time at home, and this may cause a decrease in mental well-being. Miquelon and Vallerand (2006) reported that there was a positive significant association between self-actualization and happiness. Social isolation or quarantine can be very restrictive for the individuals who have a more hedonistic perspective in their active life. Because as hedonists shorten the distance between what they desire and what they have, they gain satisfaction from life and increase their well-being (Çıkrıkçı, 2016). Social isolation and quarantine practices can prevent people from having the gains they desire. In this negative relationship, irrational beliefs and functional attitudes developed by individuals with high level of COVID-19 risk perception may also be effective. Individuals' perceptions were accepted as an expression of their emotions and behaviors (Beck, 1995). Subjective experiences of the individual were extremely important in the formation of perceptions (Beck, 1993). Therefore, the social isolation and quarantine process, or the world's struggle with COVID-19, has been a subjective experience for the individual. This subjective experience may cause differences in an individual's perceptions, belief system and attitudes (Beck, 1964).

The COVID-19 pandemic has been an extremely subjective situation for all humanity and continues to affect the lives of individuals in various dimensions. Mental well-being would be thought to be one of these dimensions. Findings from previous studies revealed that irrational beliefs and dysfunctional attitudes were associated with diverse aspects of well-being (Day & Maltby, 2003; Judge & Locke, 1993; Stein & Grant, 2004). Another dimension that may be related to these cognitive structures of individuals may be functional in explaining the determined negative relationship. Risk perception can be detrimental to the well-being of individuals in social isolation or quarantine. Individuals who can perceive the risk correctly may think that this pandemic may continue for a certain period of time and will force them to spend their time at home. Perhaps not perceiving the risk in this way, but the inferences that it makes towards the future with the help of risk perception may decrease the well-being. The individuals staying at home have to spend time with their partners, children or other family members. During this time, conflicts with these individuals may increase, maybe physical and emotional violence may be observed, or people who share the same house may move away from each other. Reports on violence have been coming from different parts of the world (The Conversation, 2020; The Guardian, 2020). For example, in social isolation process in Turkey, between March 15-31 in 2020, eighteen women were killed by their husbands at home and an increase in cases of violence against women has been increasing (Hürriyet, 2020). The hedonistic and oedomic structures of individuals who might perceive the risk and make an assessment in this and similar direction may damage. However, these inferences need to be proven scientifically and it is recommended that future studies should focus on these dimensions as well.

According to the results of mediation analysis, social media addiction has a full mediation role between COVID-19 risk perception and mental well-being. In other words, COVID-19 risk perception has a negative indirect effect on mental well-being through social media addiction. This finding indicated that the COVID-19 risk perception has an explanatory role on mental well-being throughout the mediator variable (social media addiction). This finding can help understand how and why social media addiction contributes to the explanatory role of COVID-19 risk perception on mental well-being. Accordingly, it can be stated that the increase in the COVID-19 risk perception may cause an increase in social media addiction and the increase in the mediator variable based on the COVID-19 risk perception may also reduce mental well-being. It was known that there were significant associations between well-being and behavioral addictions such as social media addiction.

The increase in time spent on social media and the quality and quantity of social media behaviors can negatively affect individuals' cognitive and affective evaluations (Griffiths, 2005). It is possible that social media addiction, which can cause highly destructive behavioral experiences, may have a decreasing effect on individuals' well-being. Social media addiction can be an obstacle to individuals' reaching their goals and meeting their needs. In line with the Erek (Telic) theory, it can be stated that these obstacles can distract the individual from well-being. Individuals who cannot meet their needs or meet their needs at the desired level cannot achieve the well-being they desire (Wilson, 1967). Social media addiction is a concept in which various negative behavior parameters are evaluated. One of these parameters is avoiding negative emotions experienced by the individual (Griffiths, 2005). Instead of dealing with their negative emotions, the individual may prefer to avoid them and turn to social media.

Perceptions of COVID-19 risk may cause the individual to develop different negative emotions (ex: anger, fear, doubt etc.). The individual may turn to social media in order to escape from these emotions, which can become increasingly intense in line with social isolation, quarantine and news about pandemic. As stated before, the change in an individual's risk perception and development of irrational beliefs can also lead individuals to use social media. As a result, being aware of the risks of COVID-19 increases an individual's chances of survival by avoiding the disease. However, it is thought that this awareness should also be managed rationally. Otherwise, it seems likely that different psychopathologies may occur as well as behavioral addictions.

Conclusions

The findings of the present study provided new associations in accounting for mental well-being in terms of COVID-19 risk perception and social media addiction. At the same time, a measure was developed that allows to examine the perceptions of COVID-19. The present research was the first scientific study to examine the association among COVID-19 risk perception, mental well-being, and social media addiction. This study provided empirical findings that social media addiction has a full mediation role in the association between COVID-19 risk perception and mental well-being.

Limitations and Recommendations

This cross-sectional study has some limitations. First, the sample of the research could be emphasized. Snowball sampling and criterion sampling methods were used in the research. These methods made random sample selection difficult and generalization of the data obtained from the sample to the population became difficult. The second limitation is that cross-sectional data were used in regression-based mediation analysis. Therefore, a cause and effect interaction between variables could not be identified. The third limitation was again related to the design of the research. Time-based interactions of variables could not be evaluated due to the design of the research. In order to determine the cause and effect interaction, time-based changes and causal relationships between variables, it is suggested that future studies should be carried out in an experimental and longitudinal design. Response bias was one of the limitations considered in the study. Although the participants declared voluntarily participation, they may not have responded sincerely to the statements in the measures. Another limitation was social desirability. The participants may have presented themselves as someone different from what they actually are.

In present study, COVID-19 risk perception and social media addiction were determined as predictors of mental well-being. In addition, social media addiction had emerged as a mediator. Future studies should be focused on the impact of COVID-19 risk perception on social media addiction in what ways and how. However, the reasons for the decrease in mental well-being of individuals with high level of COVID-19 risk perception should be investigated. In other words, it should be investigated how to increase the well-being among individuals who did not have a psychopathological diagnosis but witnessed the COVID-19 pandemic. Mamun and Griffiths (2020) emphasized the importance of nationwide epidemiological studies on mental health issues related to the COVID-19 pandemic. It may be emphasized that this method can be effective in developing mental well-being strategies. In addition to these recommendations, it could be important to determine the well-being of individuals diagnosed with COVID-19 and their families and healthcare professionals (Xiang et al., 2020).

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Appendix

The Psychometric Properties of the Risk Perception of COVID-19 Scale (RPCV-19S)

While the validity of The Risk Perception of COVID-19 Scale (RPCV-19S) was investigated, item analysis firstly was performed. It was determined that the item-total correlation values of the items in the item pool ranged from .42 to .66. After item analysis, exploratory factor analysis was applied to determine RPCV-19S factor structure. There are some requirements for the exploratory factor analysis that the data set must meet. These requirements are that the sample size must be sufficient and the data must be suitable for factor analysis. For this purpose, Kaiser-Meyer-Olkin (KMO) and Barlett Sphericity tests should be performed. It was concluded that the Barlett Sphericity test for the measure, in which the KMO value was determined as .84, was significant ($\chi^2_{(21)} = 707.91, p < .001$). In line with the results, it could be stated that the sample size and the obtained data were suitable for factor analysis. In the exploratory factor analysis process, the value of .50 was accepted as the cut-off point for factor loads. In the exploratory factor analysis based on the principal components analysis, it was determined that the items were collected under a single factor. Single factor structure explained 48.94% of the total variance. As a result, RPCV-19S consisted of seven items and it was concluded that item factor loads range between $\lambda = .54$ and $\lambda = .79$. Finally, within the scope of the construct validity of the RPCV-19S, confirmatory factor analysis was applied. According to the confirmatory factor analysis results, the single-factor model indicated excellent fit to the data: $\chi^2 = 23.49, df = 12, \chi^2 / df = 1.96$; $GFI = .978, CFI = .986, AGFI = .950, TLI = .971, SRMR = .034, RMSEA = .056$ 90% Bca [.020, .089]. The standardized factor loads of the items varied between $\lambda = .45$ and $\lambda = .75$. After completing the validity analysis of RPCV-19S, the reliability analysis was performed. The reliability of RPCV-19S was determined by Cronbach Alpha internal consistency coefficient and the McDonald Omega coefficient. Accordingly, the Cronbach Alpha value of the RPCV-19S was calculated as $\alpha = .82$ and the McDonald Omega coefficient as $\omega = .83$.

Table 1. Descriptive statistics and item-total correlation of The Risk Perception of COVID-19 Scale (RPCV-19S)

Item number	Mean (SD)	Corrected-item total correlation	Item exclusion or retention
1	2.66 (.81)	.62	Retained
2	2.21 (1.01)	.42	Retained
3	2.67 (.91)	.65	Retained
4	1.89 (.88)	.51	Retained
5	1.34 (.70)	.64	Retained
6	2.11 (1.00)	.66	Retained
7	2.56 (.99)	.44	Retained

Table 2. Factor loadings of The Risk Perception of COVID-19 Scale (RPCV-19S)

Item number	Factor loadings
3	.79
7	.78
6	.77
1	.76
4	.64
5	.56
2	.54
Total Variance	48.94%

Table 3. Standardized factor loadings, t values, R2 values and error variances

Item	λ	t value	R ²	Error variance
1	.66	-----*	.44	.37
2	.45	6.79	.20	.82
3	.70	13.51	.49	.42
4	.56	8.32	.32	.52
5	.46	6.89	.21	.38
6	.75	10.26	.56	.44
7	.74	10.24	.55	.44

Note.* This value was equal to 1 for estimation purposes.. λ = factor loadings

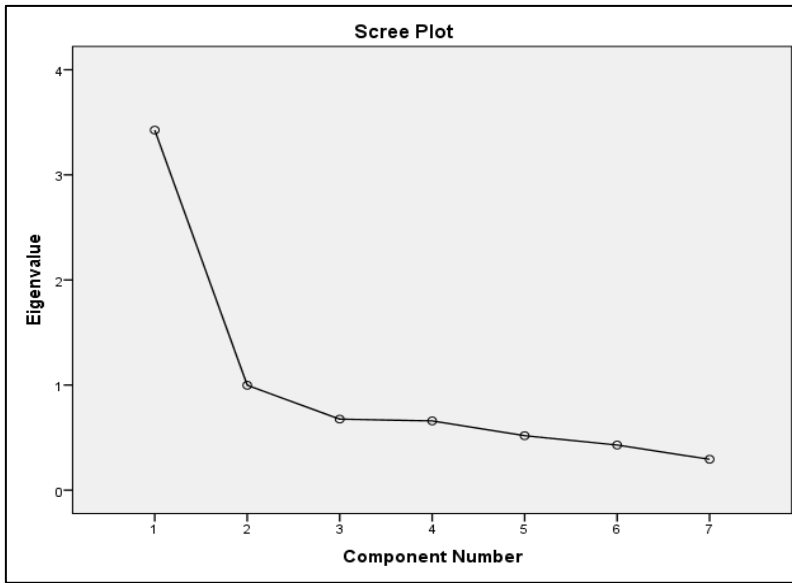
Table 4. Risk Perception of COVID-19 Scale (RPCV-19S)

Items	Statement
1	COVID-19'un ifade edildiği gibi tehlikeli bir hastalık olduğunu düşünüyorum. <i>I think COVID-19 is a dangerous disease as stated.</i>
2	COVID-19'un tedavisi olan bir hastalık olduğunu düşünüyorum. <i>I think COVID-19 is a curable disease.</i>
3	Uzmanların COVID-19 hastalığını abarttığını düşünmüyorum. <i>I don't think experts are exaggerating the COVID-19 disease.</i>
4	COVID-19 hastalığının ölümlerle sonuçlanabileceğini düşünüyorum. <i>I think COVID-19 disease can result in death.</i>
5	COVID-19'un bulaşıcı bir hastalık olduğunu farkındayım. <i>I am aware that COVID-19 is an infectious disease.</i>
6	COVID-19'un kolay bulaşabilen bir hastalık olduğunu düşünüyorum. <i>I think COVID-19 is an easily contagious disease.</i>
7	COVID-19'un kadın-erkek, genç-yaşlı ayırmadan bulaşabileceğinin farkındayım. <i>I am aware that COVID-19 can be infected without separation between men and women, young and old.</i>

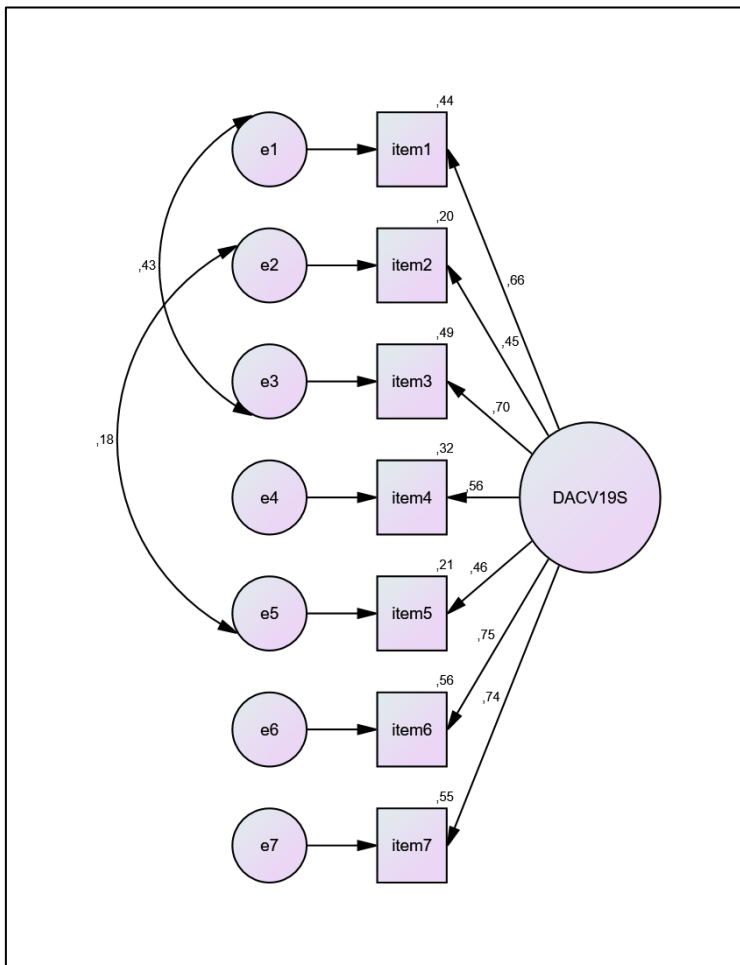
Note. Statements written in italics are the English translation of scale items. The present study was conducted with Turkish people. Therefore, the validity and reliability exploration of English version of the RPCV-19S was not performed. Items in English were provided for informational purposes only.

RPCV-19S is a five point Likert-type (strongly disagree = 1, disagree = 2, neither agree nor disagree = 3, agree = 4 and strongly agree = 5) self-report measure.

Scree Plot Graph



Path Diagram



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