SAKARYA UNIVERSITY JOURNAL OF EDUCATION

Original Research

Doi: 10.19126/suje.1057831

Received: 14.01.2022 Accepted: 03.08.2022 Published: 15.12.2022 December 2022• 12(3) • 522-544

Mediating Role of Coronavirus Anxiety in the Relationship between Intolerance of Uncertainty and Suicide Probability during COVID-19 Pandemic*

Şehide KELEK** Merve SAYIKOĞLU UÇAR***
Nur Hilal YILDIRIM**** Betül DÜŞÜNCELİ*****

Abstract. This research was designed to examine the mediating role of coronavirus anxiety in the relationship between intolerance of uncertainty and suicide probability among emerging adults. The study group of the research consisted of 301 individuals (69.1% Female, 30.9% Male) aged 18-25. Coronavirus Anxiety Scale, Intolerance of Uncertainty Scale, and Suicide Probability Scale were used in the study. Based on the quantitative research design, this research is a descriptive and correlational research. Independent samples t-test, correlation, hierarchical regression analysis and bootstrapping method were used to analyze the data. When the results were examined, it was found that those who had difficulty adjusting to the new normal and did not see quarantine as an opportunity were significantly more likely to suicide probabilities. They were also found to have higher levels of intolerance of uncertainty and coronavirus anxiety. In addition, it is found that coronavirus anxiety plays a partial mediating role between intolerance to uncertainty and suicide probability. In conclusion, this research indicated that emerging adults' intolerance of uncertainty and coronavirus anxiety levels affect their suicide probability. The results are discussed in the context of the relevant

Keywords: Intolerance of uncertainty, Coronavirus anxiety, Suicide probability, Emerging adulthood.

Kelek, Ş., Sayıkoğlu Uçar, M., Yıldırım, N. H., & Düşünceli, B. (2022). Mediating Role of Coronavirus Anxiety in the Relationship between Intolerance of Uncertainty and Suicide Probability during COVID-19 Pandemic. *Sakarya University Journal of Education*, 12(3), 522-544. doi: https://doi.org/10.19126/suje.1057831

^{*} Ethical approval was obtained from Duzce University Scientific Research and Publication Ethics Committee with the decision number 2020/58 and dated 17.12.2020.

^{**} Orcid ID: https://orcid.org/0000-0002-8444-0614, Res. Assist., Düzce University, Department of Guidance and Psychological Counseling, Türkiye, sehidekelek@duzce.edu.tr

^{***} Orcid ID: https://orcid.org/0000-0002-9914-8544, Lect., Düzce University, Department of Guidance and Psychological Counseling, Türkiye, mervesavikoglu@duzce.edu.tr

^{****} Orcid ID: $\underline{\text{https://orcid.org/0000-0002-5146-2083}}$, Düzce University, Türkiye, $\underline{\text{nur206021@ogr.duzce.edu.tr}}$

^{******} Orcid ID: https://orcid.org/0000-0002-6794-8811, Assoc. Prof. Dr., Sakarya University, Department of Guidance and Psychological Counseling, Türkiye, bbayraktar@sakarya.edu.tr

1. INTRODUCTION

Suicide is the act of taking one's own life on purpose as a result of a sense of tension. WHO (2019) reported that approximately 800,000 people die each year due to suicide, which means one person every 40 seconds. According to TurkStat data, a total of 3,406 people committed suicide in Turkey in 2019, of which 2,626 were men and 780 were women. The crude suicide rate, which refers to the number of suicides per hundred thousand population, is 4.12 per hundred thousand for 2020 (TurkStat, 2020). It is assumed that suicide rates are increasing worldwide, and suicide attempts are quite high (Suokas, Suominen, Isometsä, Ostamo, & Lönnqvist, 2001). In addition, from an age perspective, research show that the most suicidal people are in adolescence and young adulthood all around the world (Anderson, 2002; Topaloğlu & Atay, 2020). In Turkey, in 2019, individuals aged 20-24 had the highest suicide rate, which is 6.29/100,000 (TurkStat, 2020). As can be seen from the rates above, emerging adulthood is a risk factor for suicide due to the reasons such as developmental problems, adaptation to university life, employment, identity crisis, academic issues, socioeconomic problems (McClure, 2000; Nazman, Olmuş, & Erbaş, 2018). For this reason, given the importance and scope of the emerging adulthood group, a better understanding of the risk factors associated with the suicide probability becomes important in terms of taking the necessary precautions. Psychosocial factors related to suicide probability among emerging adulthood are often the subject of scientific studies. These risk factors can be summarized as psychological disorders, traumatic experiences, economic problems, loneliness, despair, anxiety, and stress (Güleç, 2016; Martin, Smith, Mcgrew, & Capron, 2019). As for the suicide probability university students in emerging adulthood, intolerance of uncertainty and coronavirus anxiety that has recently affected the entire world can also be considered risk factors.

Intolerance of Uncertainty (IU) is a dispositional incapacity to endure the aversive response triggered by the perceived absence of salient, key, or sufficient information and sustained by the associated perception of uncertainty (Carleton, 2016). More specifically, it can be defined as the excessive tendency for an individual to consider the possibility of an adverse event occurring as unacceptable (Dugas, Gosselin, & Ladouceur, 2001). It is seen as a factor of cognitive predisposition that causes ambiguous situations to be interpreted as threatening or harmful (Berenbaum, Bredemeier, & Thompson, 2008; Miranda, Fontes, & Marroquín, 2008). Although it varies from person to person, uncertain situations lead to the release of negative emotions when perceived as threatening (Dugas, Freeston, Blais, & Ladouceur, 1994). The reason why uncertainties are perceived as a threat is human nature's motive to clarify future lives and be aware of what may happen (Grenier, Barrette, & Ladouceur, 2005). Initially, IU was specifically related to Generalized Anxiety Disorder (Dugas, Buhr, & Ladouceur, 2004). However, growing evidence suggests IU may be a transdiagnostic factor across many anxiety and mood disorders (Gentes & Ruscio, 2011; McEvoy & Mahoney, 2012; Morriss, Christakou, & Van Reekum, 2016). In addition, research has shown that IU plays an important role in anxiety and stress and that there is a strong relationship between IU and anxiety

(Jenkinson, Milne, & Thompson, 2020; Rettie & Daniels, 2020; Tan, Marks, Hoyt, Kwan, Filson, Macairan, & Stanton, 2016). It has been suggested that a sense of uncertainty causes anxiety due to its structure, and the reason for this is reaction behavior to a threat (Gu, Gu, Lei, & Li, 2020). IU also strengthens negative thoughts, emotions, and behaviors as it attempts to maintain control over the situation that is seen as uncertain (Gentes & Ruscio, 2011). And it is known that negative emotions experienced by a person increase the suicide probability (Kang et al., 2019; Oyuncakçı, 2020). Individuals with high intolerance of uncertainty are less resistant to stressful life events; thus, negative emotions such as depression, anxiety, and despair occur (Bottesi, Noventa, Freeston, & Ghisi, 2019; Grenier et al., 2005). It seems that the concept of despair is one of the concepts with the highest predictability on suicide (Zhang & Li, 2013). In this direction, the relationship of IU with negative emotions can be seen as a risk factor for suicidal behavior. Studies examining the direct link between intolerance of uncertainty and suicide probability have found that IU is associated with suicidal behavior (Ciarrochi, Said, & Deane, 2005; Öztürk, 2013).

The coronavirus pandemic poses a worldwide threat to mental health. During this period, most people experience anxiety due to the fear of getting infected -both for themselves and their loved ones-, negative future expectations, fear of being labeled, and loneliness (Memiş Doğan & Düzel, 2020). Also, social measures taken due to coronavirus and their consequences such as social isolation, economic difficulties, and unemployment can lead to anxiety in individuals (Çölgeçen & Çölgeçen, 2020). However, the concept of the new normal, which entered the literature with coronavirus, explains the process of adaptation to the coronavirus pandemic (Pragholapati, 2020). It is believed that individuals' perception of the quarantine practices and the new normal, which express the measures continuing to take place in individual life, may affect their level of anxiety.

Coronavirus pandemic causes a very uncertain situation for all people due to various international responses, heterogeneous infection rates, and high transmission rates (Rettie & Daniels, 2020). According to Durkheim, worrisome experiences such as economic crises, pandemics, or wars that occur in societies can affect suicidal behavior (Durkheim, 1951). On the other hand, social learning theory states that suicidal behavior is a learned response to a person's stressful life conditions (Lester, 1987). As the coronavirus pandemic has brought with it intense stress, economic crises, and social change across the world, it is thought that the suicide probabilities should be taken into consideration during this period. Along with the uncertainties of the coronavirus pandemic, the fear of getting infected or transmitting the virus has spread anxiety and despair like a pandemic (Bozkurt, Zeybek, & Aşkın, 2020). For this reason, negative emotions experienced during the pandemic can be considered as risk factors for suicidal behavior.

In the literature, studies are asserting that a pandemic can increase the risk of suicidal behavior (Hocaoğlu & Erdoğan, 2020; Lee, 2020; Yip, Cheung, Chau, & Law, 2010). Widely reported studies discussing the effect of the coronavirus pandemic on suicide

predict increases ranging from 1% to 145% (John et al., 2020). However, the relationship between pandemics and the suicide probability is not fully determined. Intolerance of uncertainty can most likely be considered a factor affecting individuals' psychological responses during the pandemic (Sauer, Jungmann, & Witthöft, 2020). It is essential to identify the risk factors associated with suicidal behavior during and after the coronavirus pandemic and develop suicide prevention methods globally. In this way can pandemic-related suicides and thus, suicide-related deaths be prevented (Hocaoğlu & Erdoğan, 2020).

This research was designed based on emerging adulthood. Emerging adulthood is a period that includes people between the ages of 18-25, suggested by Arnett (2000), in addition to the 6 basic developmental periods in the literature. This developmental period separates from both adolescence and adulthood and now has its own characteristics. Emerging adulthood is the period in which risky behaviors and intense experience seeking can occur most commonly and at a high level (Arnett, 2000). Individuals in this period may be more sensitive to emotional stimuli, more selective and more reactive to negative stimuli than adults (Tanner & Arnett, 2009). The main research problem of this research is how the increasing uncertainty and anxiety during the Covid pandemic process affects the possibility of suicide as an important example of risky behavior, considering the characteristics of the emerging adulthood. As a result, the fact that the participants in this study are in the emerging adulthood is an important factor. Another important factor is examining the mediating effect of covid anxiety on the relationship between intolerance of uncertainty and suicide probability. In conclusion, the main purpose of this study is to examine the relationship between emerging adults' levels of intolerance of uncertainty and their suicide probabilities and the mediating role of coronavirus anxiety in this relationship.

2. METHOD

Research Design

This study was designed based on a quantitative research design. This research, which focuses on differentiation in terms of various demographic characteristics and the relationship between relevant variables, is descriptive and correlational research. Another purpose of correlational research examining the relationships between two or more variables through a coefficient is to predict the value of the other variable based on the value known if there is an adequate level relationship between two variables (Fraenkel, Wallen, & Hyun, 2012).

Participants

The participants of this research are 301 people in emerging adulthood (M_{age} :20.06; Sd:1.8589). As mentioned in the literature, emerging adulthood is a period in which risky behaviors such as suicide are common and advanced. The participants are university

students in two metropolitan cities (Ankara & Konya) and a small city (Duzce) in Turkey. These individuals were reached by convenient sampling method. In addition, since the emerging adulthood period was taken as the basis in the research, the criterion sampling method was used in terms of the participants being between the ages of 18-25 (Arnett, 2000). Demographic information of the participants is presented in the table below.

Table 1.

Demographic Information on the Participants

Variables		N	%
Gender	Female	208	69.1
	Male	93	30.9
Age			
	18	64	21.3
	19	80	26.6
	20	53	17.6
	21	47	15.6
	22	24	8.0
	23	11	3.7
	24	10	3.3
	25	12	4.0
Faculty of	Education	80	26.6
	Science and Letters	16	5.3
	Engineering	60	19.9
	Medicine	45	15.0
	Theology	15	5.0
	Economics and Administrative	15	5.0
	Sciences	20	6.6
	Sports Sciences	34	11.3
	Health Sciences	16	5.3
	Law		

Perceived SEL	Good	48	15.9
(Socio-Economic	Mediocre	229	76.1
Level)	Bad	24	8.0
Being able to see	Yes	143	47.5
quarantine as an opportunity	No	158	52.5
Difficulty	Yes	200	66.4
adjusting to the new normal	No	101	33.6
Total		301	100

Data Collection

Before the data collection process, firstly, application permission was obtained from the researchers who adapted it to Turkish for the data collection tools used in the research. Then, the necessary ethical approval was obtained from Duzce University Scientific Research and Publication Ethics Committee to conduct the study (Scientific Research and Publication Ethics Committee, dated 17.12.2020, decision number 2020/58).

Data for this research conducted during the pandemic period was collected via Google form. The scale was transferred to Google form, information about the study and purpose was given at the beginning of the form. Then, the relevant link was shared in the classroom WhatsApp groups of the students studying at universities within the borders of Duzce, Ankara, and Konya province.

Data Collection Tools

Personal Information Form

The personal information form prepared by the researchers includes questions about the demographic information of the participants, such as gender, faculty, perceived socioeconomic level (SEL), and about some personal experience of the coronavirus and pandemic.

Intolerance of Uncertainty Scale

Developed by Freeston et al. (1994) to measure cognitive, emotional, and behavioral responses to uncertain situations, this scale was adapted to Turkish by Sarı and Dağ (2009). The 5-point Likert-type scale consisting of 27 items gives a total score but has a 4 sub-factor structure as follows: 'uncertainty is stressful and sad,' 'negative self-assessments related to uncertainty,' 'not knowing the future is disturbing' and 'uncertainty prevents taking action.' The internal consistency coefficient in psychometric

measurements for the Turkish form of the scale was .93, and the internal consistency coefficient obtained in this study was calculated as .94.

Coronavirus Anxiety Scale

Coronavirus Anxiety Scale, developed by Lee (2020a), was adapted to Turkish by Evren et al. (2020). Developed to help identify individuals whose functionality is impaired due to coronavirus-related anxiety; this scale is a Likert-type scale consisting of 5 items. A high score taken from this scale, which gives a total score, means a high level of nonfunctional anxiety. When the psychometric properties of the Turkish form are examined, it is seen that the Cronbach alpha coefficient is above .80. In this study, the Cronbach alpha coefficient was found as .83.

Suicide Probability Scale

The Suicide Probability Scale, developed by Cull and Gill (1988) to assess the risk of suicide in adolescents and adults, is a 4-point Likert-type scale consisting of 36 items. It is seen that the reliability coefficients of the scale are over .80 in various Turkish adaptation studies conducted on different samples. In this study, the current revised form by Şahin and Batıgun (2018) was used. The Turkish form of the scale also consists of sub-dimensions Support/Self-Perception, four (Social Anger/Hostility, Despair/Loneliness, and Suicidal Thought) in parallel with the original form and gives a total score. In this study, the Cronbach-alpha coefficient for the total of all scale items was found to be .90. Given the internal consistency coefficients of the coronavirus Anxiety Scale, Suicide Probability Scale, and Intolerance of Uncertainty Scale of this study, it can be said that their measurements are reliable in this study (Pallant, 2005).

Data Analysis

Analysis of the collected data was carried out using the SPSS 25.0 package program. A data scanning procedure was performed before the analysis of the data. An important factor affecting the analyses to be used in the research is the normality test. In this context, skewness and kurtosis values were studied for the normality distribution of the data. As a result of the examination, it was observed that the skewness and kurtosis values of the data remained between -1.5 and +1.5. In this case, parametric tests were used for analysis, considering that the data set was normally distributed. It was determined that the correlation values between the variables were between r = .30 and r = .48, and it was seen that the data set was suitable for regression analysis in terms of the multicollinearity (r < .90) (Tabachnick & Fidell, 2013).

In this study, hierarchical regression analysis was performed to examine whether intolerance of uncertainty and coronavirus anxiety predicted the suicide probability. Hierarchical regression analysis is a type of regression where independent variables are included in the model in the desired order according to an institutional framework. In this type of analysis, when the new independent variable is included in the model, the independent variable in the previous step becomes the control variable. Thus, evaluating

is conducted according to what the included independent variable adds to the estimate of the dependent variable (ΔR^2) (Pallant, 2005).

However, the mediating role of coronavirus anxiety between intolerance of uncertainty and suicide probability was tested in 10,000 repeated trials using the bootstrapping method with the SPPS-macro program (Preacher & Hayes, 2004; 2008). For a variable to be a mediator variable, the independent variable must first predict the mediator variable, and the mediator variable must predict the dependent variable. In addition, when the mediator variable gets involved, the situation in which the independent variable predicts the dependent variable must either disappear completely (full mediator) or decrease (partial mediator) (Baron & Kenny, 1986). In addition, t-test analysis was performed for independent samples to examine whether the relevant variables differed depending on the determined demographic variables.

3. FINDINGS

Findings on Demographic Variables

In this study, gender, the ability to see quarantine as an opportunity and the difficulty adjusting to the new normal were discussed as demographic variables. T-test results for these variables are presented in table 2.

Table 2.

Independent Samples T-test Table Depending on Gender, The Ability to See Quarantine as an Opportunity and Difficulty Adjusting to The New Normal

Variables	Groups	N	Χ̄	SS	df	t	р	η2
Intolerance of	Gender				299	2.01	.045*	.01
Uncertainty	Female	208	84.5	19.81				
	Male	93	79.49	20.38				
	Being able to see quarantine as an opportunity				299	- 2.95	.003**	.03
	Yes	143	2.31	3.05				
	No	158	3.39	3.73				
	Difficulty adjusting to the new normal	200	3.21		299	4.74	.000***	.06

	Yes	101	2.21	3.67				
	No			2.92				
Coronavirus	Gender				299	6.26	.000***	.11
Anxiety	Female	208	3.52	3.77				
	Male	93	1.43	2.01				
	Being able to see quarantine as an opportunity				296	- 2.74	.006**	.02
	Yes	143	79.40	20.41				
	No	158	86.17	19.29				
	Difficulty adjusting to the new normal				244.54	2.55	.011*	.02
	Yes	200	86.73	18.74				
	No	101	75.49	20.67				
Suicide	Gender				299	1.33	.182	.00
Probability	Female	208	39.79	16.72				
	Male	93	37.32	13.85				
	Being able to see quarantine as an opportunity				299	- 5.14	.000***	.08
	Yes	143	34.26	14.33				
	No	158	43.34	16.08				
	Difficulty adjusting to the new normal				227.49	2.90	.004**	.03
	Yes	200	40.82	16.42				
	No	101	35.48	14.26				

^{*}p<.05, **p < .01, ***p < .001

When looking at Table 2, there appears to be a significant difference between IU (t=2.01; p<.05) and Coronavirus Anxiety level (t=6.26; p<.001) according to gender. Females'

level of intolerance to uncertainty (\bar{X} =84.50) is higher than that of male (\bar{X} =79.49). The effect size coefficient (η 2) was calculated as .01, which is small effect. Similarly, females' covid anxiety levels (\bar{X} =3.52) are higher than male's covid anxiety levels (\bar{X} =1.43) and the effect size coefficient (η 2) was calculated as .11, which is medium effect. In terms of suicide probability, there was no significant difference according to gender (t=1.33; p>.05).

Another finding is that, in terms of suicide probability, there is a significant difference between those who say yes and those who say no to the expression "Being able to see the quarantine as an opportunity," which is one of the items given to the participants in the demographic information form (t=-5.14; p<.001). As a result of the analysis, the effect size coefficient (η 2) was calculated as .08. It was found that those who could not see quarantine as an opportunity (\bar{X} =43.34) were more likely to commit suicide than those who did (\bar{X} = 34.26). In addition, it was found that there was a significant difference between IU (t=-2.95; p<.01) and coronavirus anxiety (t=-2.74; p<.001) levels of people who could see quarantine as an opportunity and people who could not see it as an opportunity had a greater IU and coronavirus anxiety. In addition, as a result of the analysis, the effect size coefficients (η 2) were calculated as .03 for intolerance to uncertainty and .02 for coronavirus anxiety.

As another demographic variable, a significant difference was found between those who said, "I had difficulty adjusting to the new normal that came with the coronavirus pandemic" and those who said "I did not have difficulty" in terms of suicide probability (t=2.90; p <.01); suicide probability was found to be higher for those who had difficulty adjusting to the new normal (\bar{X} =40.82) than those who did not (\bar{X} =35.48). As a result of the analysis, the effect size coefficient (η 2) was calculated as .03. Similarly, in terms of IU (t=4.74; p<.001) and coronavirus anxiety (t=2.55; p<.05), a significant difference was observed depending on difficulty in adjusting to the new normal. As a result of the analysis, the effect size coefficients (η 2) were calculated as .06 for intolerance to uncertainty and .02 for coronavirus anxiety. It was found that people who had difficulty adjusting to the new normal had higher levels of intolerance of uncertainty and coronavirus anxiety than those who did not.

Results of Correlation and Regression Analysis

Pearson Correlation Coefficient was used to determine the relationship between the variables, and the results of correlation analysis are given in Table 3.

Table 3.

Correlation Coefficients Matrix of Intolerance of Uncertainty, Coronavirus Anxiety, and Suicide Probability

Variables	1	2	3
Intolerance of Uncertainty (1)	1		
Coronavirus Anxiety (2)	.34**	1	
Suicide Probability (3)	.48**	.30**	1

^{*}p<.05, **p < .01, ***p < .001

When the correlation coefficients were examined, a moderately positive significant relationship was found between the suicide probability and intolerance of uncertainty (r=.48, p<.01) and coronavirus anxiety (r=.30, p<.01). In addition, it was seen that there was a moderately positive relationship between intolerance of uncertainty and coronavirus anxiety (r=.34, p<.01).

Hierarchical regression analysis was performed to examine whether intolerance of uncertainty and coronavirus anxiety predict the suicide probability. Results of the hierarchical regression analysis on predicament of suicide probability are given in Table 4.

Table 4.

Results of the Hierarchical Regression Analysis on Predicament of Suicide Probability

Variables	R^2	ΔR^2	В	Standard Error	β	t	p	F
1st Step	.23							90.61***
Intolerance of Uncertainty			.38	. 04	.48	9.51	.000	
2nd Step	.25	.02**						50.57***
Intolerance of Uncertainty			.33	.04	.42	8.03	.000	
Coronavirus Anxiety			.71	.24	.15	2.92	.004	

^{*}p<.05, **p < .01, ***p < .001

According to the results of hierarchical regression (Table 4), the IU variable included in the model in the first step made a significant contribution to the model (p<.001), and it explained 23% of the suicide probability (R²=.23). In the same way, the coronavirus anxiety variable included in the second step of the model positively predicted the suicide probability at a significant level (p<.01), and it made a significant additional contribution of 2% (Δ R²=.02, p<.01) to explain the suicide probability variance. In the second step, both independent variables explained a total of 25% of the suicide probability (R²=.25). On the other hand, with coronavirus anxiety to the model in the second step, the level of IU's effect on the suicide probability decreased from β =48 to β =42. These results suggest that coronavirus anxiety may play a mediating role between intolerance of uncertainty and suicide probability. Still, the findings of mediation analysis are needed to understand whether this role is significant.

Findings on Mediating Role of Coronavirus Anxiety

According to the hierarchical regression results of this study, coronavirus anxiety seems to predict the suicide probability. Coronavirus anxiety has also been found to reduce the suicide probability (from β =48 to β =42). As a result of linear regression analysis conducted to determine whether intolerance of uncertainty predicts coronavirus anxiety, it was observed that there was a significant positive prediction ($F_{(1.348)}$ =40.32, p<.001; β =.34, p<.001). As a result, coronavirus anxiety and its associated model meet the criteria for mediating variables.

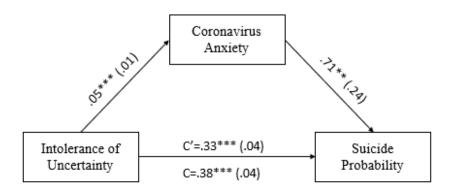


Figure 1. The mediating role of Coronavirus Anxiety in the relationship between Intolerance of Uncertainty and the Suicide Probability (All effect values are non-standardized values, and standard errors are given in parentheses. The value c' refers to the direct effect of intolerance of uncertainty on the suicide probability, and the value c refers to its total effect.)

Figure 1 shows the coefficients of direct and total effects from intolerance of uncertainty to coronavirus anxiety, from coronavirus anxiety to suicide probability, and from intolerance of uncertainty to suicide probability, which was obtained by the

bootstrapping method. It was found that the 95% confidence range did not contain the value of zero while suicide probability was predicted (range of .01 and .07). In this context, coronavirus anxiety appears to have a mediating role in this model. The fact that intolerance of uncertainty maintains a meaningful and direct effect on suicide probability (that the predicting situation does not completely disappear) also means that coronavirus anxiety plays a partial mediating role.

4. RESULTS, DISCUSSIONS AND SUGGESTIONS

This study was conducted to have a better understanding of the suicide probability of university students in emerging adulthood. There is a statistically significantly difference between gender and intolerance to uncertainty. It was concluded that the level of intolerance to uncertainty of women is higher than that of men. There are studies with similar findings (Kilit et al. 2020; Dugas, Freeston, & Ladouceur, 1997). In addition, there are also studies in which intolerance to uncertainty does not differ statistically significantly according to the gender variable (Buhr & Dugas, 2002; Geçgin & Sahranç, 2017; Güvenç, 2019). Also, there is a statistically significantly difference between gender and coronavirus anxiety. It was concluded that the level of coronavirus anxiety of women is higher than that of men. There are studies with similar findings (Magano et al., 2021). In addition, there are studies that do not find a significant difference between coronavirus anxiety and gender (Choi, Lee & Lee, 2020). The study found that intolerance of uncertainty, coronavirus anxiety, and suicide probability differed statistically significantly compared to the ability to see quarantine as an opportunity. Young adults who could see quarantine as an opportunity were found to have lower levels of intolerance of uncertainty, coronavirus anxiety, and suicide probability. Public health measures such as isolation, social distance, and quarantine are currently being implemented worldwide as part of the fight against coronavirus (Bodrud-Doza et al., 2020). Studies have found that quarantine increases psychological symptoms such as stress, depression, and anxiety (Chtouro et al., 2020; Tecirli, Ucuz & Ozel, 2020). A study of the literature shows that quarantine periods are a risk factor for suicide probability (Dsouza, Quadros, Hyderabadwala, & Mamun, 2020; Sun, Goldberg, Lin, Qiao, & Operario, 2020). During the quarantine, individuals' lack of meaningful goals can lead to life-threatening situations (Hawryluck et al., 2004). From another perspective, it is found in leading suicide theories where social connections are put forward to play a critical role in suicide prevention (Van Orden et al., 2010). Perceived social support during the quarantine period, positive social behavior (Sun et al., 2020), and being physically active (Butola, Ambad, Gusain, & Dhok, 2020) seem to play a role as a protective factor in terms of mental health. In addition, spending free time during quarantine periods for something meaningful, trying to do new things at home, and being active are positively associated with well-being (Zhuo & Zacharias, 2020).

The study found that intolerance of uncertainty, coronavirus anxiety, and suicide probability differed statistically significantly depending on the situation of having

difficulty adjusting to the new normal. In this direction, individuals who had no difficulty adjusting to the new normal were found to have lower levels of intolerance of uncertainty, coronavirus anxiety, and suicide probability. The concept of "new normal," which entered the literature with coronavirus, explains the process of adaptation to the coronavirus pandemic (Pragholapati, 2020). From this point of view, the concept of new normal is quite ambiguous for individuals. In this context, relaxing measures, getting used to the new process, and uncertainty about what will come afterward can lead to anxiety in individuals with low tolerance to uncertainty. The most obvious of the psychological problems that can arise due to the uncertain conditions associated with coronavirus is anxiety (Twardawski, Steindorf, & Thielmann, 2020). Getting used to the new normal has brought many personal and social changes such as mask use, social distance, and isolation. Some individuals may have problems adapting to these changes. A study conducted by Çebi (2020) found that 44,2% of the sample group included in the study had difficulty adjusting to the new normal. Individuals who have difficulty adjusting to these changes that come with coronavirus are likely to experience anxiety (Norton, 2020). In addition, it is believed that individuals who experience coronavirus anxiety may have problems keeping up with these changes that come with the pandemic. The finding from this research also supports this idea. In addition, it is known that the ability of individuals to accept new and challenging experiences acts as a stopper against the anxiety they experience in this process (Smith, Twohy, & Smith, 2020). The failure adapting to challenges and compensating for uncertainty due to lack of goals can lead to the loss of many opportunities of the current reality. When experiencing a state of uncertainty, individuals have a group of psychological and behavioral traits or negative thoughts or avoid accepting reality behavior. Lack of positive opportunities in the event of uncertainty causes individuals to withdraw from constructive and positive activities (Buheji, Ahmed, & Jahrami, 2020). From this perspective, it seems that difficulty adjusting to the new normal will lead to negative thoughts and emotions and introversion. It can be assumed that such a situation will increase the suicide probability for individuals. In this study, the fact that individuals who do not have difficulty adjusting to the new normal are less likely to suicide probabilities also supports this view.

Another important finding in this study is that intolerance of uncertainty positively predicts suicide probability. This conclusion supports the results in the literature that intolerance of uncertainty is a factor that increases suicide probability (Ciarrochi et al., 2005; Öztürk, 2013). In this context, a study of the research model shows that coronavirus anxiety plays a partial mediating role between intolerance of uncertainty and suicide probability. Intolerance of uncertainty is the tendency of individuals to perceive uncertain situations contrary to their emotional and behavioral well-being (Buhr & Dugas, 2009), even as a threat (Berenbaum et al., 2008; Dugas, Buhr, et al., 2004; Miranda et al., 2008). Individuals with a low tolerance for uncertainty have difficulty tolerating and coping with the distress caused by uncertainty (Yook, Kim, Suh, & Lee, 2010). Perception of uncertainty as a threat causes individuals to experience

negative emotions (Bar-Anan, Wilson, & Gilbert, 2009; Dugas, Freeston, et al., 1994). It seems that these negative emotions also increase the suicide probability of individuals (Oyuncakçı, 2020).

Anxiety, by its nature, is manifested by a state of uncertainty as a reaction behavior to a threat (Gu et al., 2020). Intolerance of uncertainty is a critical factor in anxiety disorders (Buhr & Dugas, 2009). In other words, as an individual's level of IU increases, he or she will likely develop anxiety at the clinical level (Martin et al., 2019). Many studies in the literature show a strong association between IU and anxiety (Carleton et al., 2016; Jenkinson et al., 2020; Rettie & Daniels, 2020; Tan et al., 2016). Coronavirus, which is perceived as a major threat globally, still harbors uncertainty for humans and causes people to experience negative emotions depending on many factors. Individuals may experience intense anxiety, especially in this process due to the factors such as fear of getting infected -both for themselves and their loved ones-, negative future expectations, fear of being labeled, loneliness, social isolation, economic problems, unemployment, fear of difficulty accessing health care institutions, increased media information, high infection, and mortality rates (Çölgeçen & Çölgeçen, 2020; Lin, 2020; Memiş Doğan & Düzel, 2020). A study conducted by Cao et al. (2020) concluded that 24.9% of university students experience anxiety due to coronavirus. However, it is quite possible to think that the constant state of uncertainty continues to feed anxiety. Especially in this process, the presence of new information that is constantly changing and developing, people's exposure to incomplete or incorrect information can be said to increase coronavirus anxiety. In another respect, individuals who exhibit high anxiety levels in response to coronavirus may move away from the ability to think rationally (Lee, 2020a). A study of the literature shows many studies on the negative impact of coronavirus pandemic on mental health. Uncertainty, social isolation, and economic problems caused by coronavirus appear to increase many psychological disorders such as anxiety disorder, and subsequently, suicidal behavior (Sher, 2020). A study conducted in America has shown that individuals affected by high levels of coronavirus anxiety and fear have a greater tendency to suicidal thoughts (Lee, 2020a). As a result of the study, when the conditions of university students in this process are examined, it is seen that intolerance of uncertainty increases coronavirus anxiety, thus increasing the suicide probability. In short, intolerance of uncertainty increases suicide probability both directly and indirectly through coronavirus anxiety.

The coronavirus pandemic has left the whole world with uncertainty. The uncertainty experienced in daily life and the ongoing uncertainty about the future caused by the pandemic can constantly trigger coronavirus anxiety in individuals. On the other hand, periods of the pandemic can be seen as a risk factor leading to negative feelings and experiences which may increase suicide probability in individuals because of quarantine practices, social isolation, economic problems, expected new habits, and constantly changing information and practices. From this point of view, it is thought that this research, which examines uncertainty and coronavirus anxiety that accompanies

uncertainty, and the relationship between coronavirus anxiety and the suicide probability of emerging adulthood, will make an essential contribution to the literature and current practices. Managing and dealing with uncertainty experienced during the global pandemic period is very important for the positive mental health of individuals.

It is seen that individuals' negative attitudes against quarantine practices and the new normal during pandemic periods bring negative experiences and emotions. In this period, to be able to see the quarantine as a period in which individuals can spare time for their family and themselves, to be interested in physical activity and hobbies; in other words, to turn this unwanted quarantine process into an opportunity, accepting the new normal, such as masks, physical distance and hygiene, and exhibiting a positive attitude can act as protective and supportive factors for the individuals' mental health. For this reason, it may be recommended to conduct studies for individuals to spend their quarantine periods more actively and effectively and to adapt to the new normal. In this context, organizing online activities, workshops, studies, and programs that will enable university students to deal with uncertainty and anxiety effectively can positively contribute to their psychological health and better configuration of quarantine periods. In addition, it may be recommended that institutions, especially the ones providing official information, news, and media channels to create and share information and media content that reduces uncertainty and anxiety, creating a positive perception of quarantine, and motivates to get used to the new normal.

Finally, this research is limited to university students and the nonclinical sample group. Similar research is needed in various samples, especially those with high anxiety sensitivity, chronic conditions, or other developmental periods. In addition, unlike the suicide probability, it is considered very important to research possible psychological and psychiatric problems that can lead to uncertainty and coronavirus anxiety in later periods, especially in children.

References

- Anderson, R. (2002). Deaths: Leading causes for 2000. *National Vital Statistics Reports,* 50(16), 1-88.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469-480. doi: 10.1037/0003-066X.55.5.469
- Bar-Anan, Y., Wilson, T. D., & Gilbert, D. T. (2009). The feeling of uncertainty intensifies affective reactions. *Emotion*, *9*(1), 123-127. doi:10.1037/A0014607
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. doi:10.1037/0022-3514.51.6.1173

- Berenbaum, H., Bredemeier, K., & Thompson, R. J. (2008). Intolerance of uncertainty: Exploring its dimensionality and associations with need for cognitive closure, psychopathology and personality. *Journal of Anxiety Disorders, 22*(1), 117-125. doi:10.1016/j.janxdis.2007.01.004
- Bodrud-Doza, M., Shammi, M., Bahlman, L., Islam, A. R. M., & Rahman, M. (2020). Psychosocial and socio-economic crisis in Bangladesh due to COVID-19 pandemic: a perception-based assessment. *Frontiers in public health*, 8, 341.
- Bodrud-Doza, Md., Shammi, M., Bahlman, L., Tawfigul Islam, A. R. Md. & Rahman, M. Md. (2020). Psychosocial and socioeconomic crisis in Bangladesh due to covid-19 pandemic: A perception-based assessment. *Frontiers Public Health*, *26*(8), 341. doi:10.3389/fpubh.2020.00341
- Bottesi, G., Noventa, S., Freeston, M. H., & Ghisi, M. (2019). Seeking certainty about intolerance of uncertainty: Addressing old and new issues through the Intolerance of Uncertainty Scale revised. *Plos One*, 14(2), 1-24. doi:10.1371/journal.pone.0211929
- Bozkurt, Y., Zeybek, Z., & Aşkın, R. (2020). Covid-19 pandemisi: Psikolojik etkileri ve terapötik müdahaleler [Covid-19 pandemic: Psychological effects and therapeutic interventions]. İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi, 19(37), 304-318.
- Brooks, S., Webster, R., Smith, L., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *Lancet Psychiatry*, 395(14), 912-920. doi:10.1016/S0140-6736(20)30460-8
- Buheji, M., Ahmed, D. & Jahrami, H. (2020). Living uncertainty in the new normal. *International Journal of Applied Psychology, 10*(2), 21-31. doi:10.5923/J.İjap.20201 002.01
- Buhr, K., & Dugas, M. J. (2002). The intolerance of uncertainty scale: Psychometric properties of the English version. *Behaviour research and therapy*, *40*(8), 931-945.
- Buhr, K., & Dugas, M. J. (2009). The role of fear of anxiety and intolerance of uncertainty in worry: An experimental manipulation. *Behaviour Research and Therapy, 47*(3), 215–223. doi:10.1016/j.brat.2008.12.004
- Butola, L., Ambad, R., Gusain, N., & Dhok, A. (2020). Indoor activities for physical fitness during lockdown. *Journal of Critical Reviews*, 7(10), 542-545. doi:10.31838/jcr.07.10.108
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the covid-19 epidemic on college students in China. *Psychiatry Research*, 287.doi:10.1016/J.Psychres.2020.112934
- Carleton, R. N. (2016). Into the unknown: A review and synthesis of contemporary models involving uncertainty. *Journal of Anxiety Disorders*, 39, 30-43. doi:10.1016/j.janxdis.2016.02.007
- Carleton, R. N., Duranceau, S., Shulman, E. P., Zerff, M., Gonzales, J. & Mishra, S. (2016). Self-reporter intolerance of uncertainty and behavioural decisions. *Journal of Behavior Therapy and Experimental Psychiatry*, *51*, 58-65. doi:10.1016/j.jbtep.2015.12.004

- Çebi, E. (2020). Covid-19 salgını döneminde "normal" ve "yeni normal" yaşam üzerine bir araştırma [A research on "normal" and "new normal" lives during the covid-19 epidemic period]. *Journal of International Social Research*, 13(73), 582-593. doi:10.17719/jisr.11063
- Choi, E., Lee, J., & Lee, S. A. (2020). Validation of the Korean version of the obsession with COVID-19 scale and the Coronavirus anxiety scale. *Death studies*, 1-7.
- Chtourou, H., Trabelsi, K., H'mida, C., Boukhris, O., Glenn, J. M., Brach, M., & Bragazzi, N. L. (2020). Staying physically active during the quarantine and self-isolation period for controlling and mitigating the covid-19 pandemic: A systematic overview of the literature. *Frontiers in Psychology, 11*, 1708. doi:10.3389/fpsyg.2020.01708
- Ciarrochi, J., Said, T., & Deane, F. P. (2005). When simplifying life is not so bad: The link between rigidity, stressful life events, and mental health in an undergraduate population. *British Journal of Guidance & Counselling, 33*(2), 185-197. doi:10.1080/03069880500132540
- Çölgeçen, Y., & Çölgeçen, H. (2020). Covid-19 pandemisine bağlı yaşanan kaygı düzeylerinin değerlendirilmesi: Türkiye örneği [Evaluation of anxiety levels arising from covid-19 pandemic: The case of Turkey]. *Turkish Studies, 15*(4), 261-275. doi:10.7827/TurkishStudies.44399
- Cull, J. G., & Gill, W. S. (1988). *Suicide probability scale (SPS) manual.* Western Psychological Services.
- Dsouza, D. S., Quadros, S., Hyderabadwala, Z. J. & Mamun, M. A. (2020). Aggregated covid-19 suicide incidences in India: Fear of covid-19 infection is the prominent causative factor. *Psychiatry Research*, *290*, 113145. <a href="https://doi.org/
- Dugas, M. J., Buhr, K., & Ladouceur, R. (2004). The role of intolerance of uncertainty in etiology and maintenance. In R. G. Heimberg, C. L. Turk, & D. S. Mennin (Eds.), *Generalized anxiety disorder: Advances in research and practice* (pp. 143–163). Guilford Press.
- Dugas, M. J., Freeston, M. H., Blais, F., & Ladouceur, R. (1994). *Anxiety and depression in GAD patients, high and moderate worriers* [Poster presentation]. Association for Advancament of Behavior Therapy 28th Annual Convention. San Diego, California, USA.
- Dugas, M. J., Gosselin, P., & Ladouceur, R. (2001). Intolerance of uncertainty and worry: Investigating specificity in a nonclinical sample. *Cognitive Therapy and* Research, 25(5), 551-558. doi:10.1023/A:1005553414688
- Durkheim, E. (1951). *Suicide. A study in sociology* (J. A. Spaulding & G. Simpson, Trans.). The Free Press.
- Evren, C., Evren, B., Dalbudak, E., Topcu, M., & Kutlu, N. (2020). Measuring anxiety related to Covid-19: A Turkish validation study of the Coronavirus Anxiety Scale. *Death Studies*, 1-7. doi: 10.1080/07481187.2020.1774969
- Fraenkel, J. R., Wallen, N. & Hyun, H. (2012). *How to design and evaluate research in education*. New York, NY: Mc Graw Hill Education.

- Freeston, M. H., Rheaume, J., Letarte, H., Dugas, M. J., & Ladouceur, R. (1994). Why do people worry? *Personality and Individual Differences, 17,* 791-802. doi:10.1016/0191-8869(94)90048-5
- Geçgin, F. M., & Sahranç, Ü. (2017). Belirsizliğe tahammülsüzlük ile psikolojik iyi oluş arasındaki ilişki [The relationship between intolerance of uncertainty and psychological well-being]. *Sakarya University Journal of Education*, 7(4), 739-755.
- Gentes, E. L., & Ruscio, A. M. (2011). A meta-analysis of the relation of intolerance of uncertainty to symptoms of generalized anxiety disorder, major depressive disorder, and obsessive-compulsive disorder. *Clinical Psychology Review, 31*(6), 923-933. doi:10.1016/j.cpr.2011.05.001
- Grenier, S., Barrette, A. M., & Ladouceur, R. (2005). Intolerance of uncertainty and intolerance of ambiguity: Similarities and differences. *Personality and Individual Differences*, 39(3), 593-600. doi:10.1016/j.paid.2005.02.014
- Gu, Y., Gu, S., Lei, Y., & Li, H. (2020). From uncertainty to anxiety: How uncertainty fuels anxiety in a process mediated by intolerance of uncertainty. *Neural Plasticity*, 2020:8866386. doi:10.1155/2020/8866386
- Güleç, G. (2016). Psikiyatrik bozukluklar ve intihar [Psychiatric disorders and suicide]. *Türkiye Klinikleri Psychiatry Special Topics*, 9(3), 21-25.
- Güvenç, F. (2019). Üniversite öğrencilerinde bilişsel esneklik ve belirsizliğe tahammülsüzlük ile kişilik özellikleri arasındaki ilişki [The relationship between cognitive flexibility and intolerance of uncertainty and personality traits in university students] (Unpublished Master's thesis) Necmettin Erbakan University, Konya.
- Hawryluck, L., Gold, W. L., Robinson, S., Pogorski, S., Galea, S., & Styra, R. (2004). SARS control and psychological effects of quarantine, Toronto, Canada. *Emerging Infectious Diseases*, *10*(7), 1206–1212. doi:10.3201/eid1007.030703
- Hocaoğlu, Ç., & Erdoğan, A. (2020) Covid-19 ve intihar [COVID-19 and suicide]. In B. Coşar (Ed.), *Psikiyatri ve Covid 19* (pp. 35-42). Türkiye Klinikleri.
- Jenkinson, R., Milne, E., & Thompson, A. (2020). The relationship between intolerance of uncertainty and anxiety in autism: A systematic literature review and meta-analysis. *Autism*, *24*(8), 1933-1944. doi:10.1177/1362361320932437
- John, A., Okolie, C., Eyles, E., Webb, R. T., Schmidt, L., McGuiness, L. A., ...Gunnell, D. (2020). The impact of the covid-19 pandemic on self-harm and suicidal behaviour. *A Living Systematic Review, 9,* 1097. doi:10.12688/f1000research.25522.1
- Kang, N., You, J., Huang, J., Ren, Y., Lin, M. P., & Xu, S. (2019). Understanding the pathways from depression to suicidal risk from the perspective of the interpersonal-psychological theory of suicide. *Suicide and Life-Threatening Behavior*, *49*(3), 684-694. doi:10.1111/sltb.12455
- Kilit, Z., Dönmezler, S., Erensoy, H., & Berkol, T. (2020). Üniversite öğrencilerinde belirsizliğe tahammülsüzlük, endişe ve bilişsel sınav kaygısı ilişkisi [The relationship between intolerance of uncertainty, anxiety and cognitive test anxiety in university students]. *Ortadoğu Tıp Dergisi, 12*(2), 262-268.

- Lee, S. A. (2020). Coronavirus Anxiety Scale: A brief mental health screener for covid-19 related anxiety. *Death Studies*, 44(7), 393-401. doi:10.1080/07481187
- Lester, D. (1987). Suicide as a learned behavior. Charles C Thomas, Publisher.
- Lin, C. Y. (2020). Social reaction toward the 2019 novel coronavirus (Covid-19). *Social Health and Behavior, 3* (1), 1–2. doi:10.4103/Shb.Shb_11_20
- Magano, J., Vidal, D. G., Dinis, M. A. P., & Leite, Â. (2021). Validation and psychometric properties of the Portuguese version of the Coronavirus Anxiety Scale (CAS) and fear of COVID-19 Scale (FCV-19S) and associations with travel, tourism and hospitality. *International Journal of Environmental Research and Public Health*, 18(2), 427.
- Martin, R. L., Smith, N. S., Mcgrew, S. J., & Capron, D. W. (2019). Aggressive worriers: How aggression moderates the association between intolerance of uncertainty and suicidal desire constructs. *Archives of Suicide Research: Official Journal of The International Academy for Suicide Research.* Advance online publication. doi.10.1080/13811118.2019.1689877
- Mcclure, G. M. G. (2000). Changes in suicide in England and Wales, 1960–1997. *The British Journal of Psychiatry*, *176*(1), 64-67. doi:10.1192/bjp.176.1.64
- Mcevoy, P. M., & Mahoney, A. E. (2012). To be sure, to be sure: Intolerance of uncertainty mediates symptoms of various anxiety disorders and depression. *Behavior Therapy*, 43(3), 533-545. doi:10.1016/j.beth.2011.02.007
- Memiş Doğan, M., & Düzel, B. (2020). Covid-19 özelinde korku-kaygı düzeyleri [Fear-anxiety levels in Covid-19]. *Turkish Studies, 15*(4), 739-752. doi:10.7827/Turkishstudies.44678
- Miranda, R., Fontes, M., & Marroquín, B. (2008). Cognitive content-specificity in future expectancies: Role of hopelessness and intolerance of uncertainty in depression and GAD symptoms. *Behaviour Research and Therapy, 46*(10), 1151-1159. doi:10.1016/j.brat.2008.05.009
- Morriss, J., Christakou, A., & Van Reekum, C. M. (2016). Nothing is safe: Intolerance of uncertainty is associated with compromised fear extinction learning. *Biological Psychology*, *121* (Pt B), 187-193. doi:10.1016/j.biopsycho.2016.05.001
- Nazman, E., Olmuş, H., & Erbaş, S. (2018). Türkiye'deki ergenler arasında intihar düşüncesini etkileyen potansiyel risk faktörlerinin incelenmesi [Investigating potential risk factors affecting on suicidal ideation among adolescents in Turkey]. *Toplum ve Sosyal Hizmet,* 29(2), 270-291.
- Norton, B. (2020). Eap and Covid-19: Psychological and emotional wellness in the workplace: Return to work during the pandemic: helping the distressed employee. http://Hdl.Handle.Net/10713/13333
- Oyuncakçı, S. (2020). 25-40 yaş arası yetişkinlerde intihar olasılığı, çocukluk çağı travmaları, psikolojik sağlamlık, affetme ve olumlu-olumsuz duygular arasındaki ilişkinin incelenmesi [The investigation of the relationship between suicide possibility, childhood trauma, resilience, forgiveness and positive-negative affect among 25-40 years individual]. (Unpublished Master's thesis) University of Bahçeşehir, İstanbul. https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp

- Öztürk, Ö. (2013). İntihar olasılığı ve aile işlevselliği arasındaki ilişkide bilişsel esneklik ve belirsizliğe tahammülsüzlük değişkenlerinin aracı rolü. [Mediator role of cognitive flexibility and intolerance of uncertainty in relationship which between suicide probability and family functionality]. Unpublished Master's thesis, University of Ankara, Ankara.
- Pallant, J. (2005). SPSS survival manual. New York, NY: Mcgraw Hill.
- Pragholapati, A. (2020). New normal "Indonesia" after covid-19 pandemic. *PsyArXiv.* Advance online publication. doi:10.31234/osf.io/7snqb
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers,* 36(4), 717–731. doi.10.3758/BF03206553
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. doi.10.3758/BRM.40.3.879
- Rettie, H., & Daniels, J. (2020). Coping and tolerance of uncertainty: Predictors and mediators of mental health during the Covid-19 pandemic. *American Psychologist*. Advance Online Publication. doi.10.1037/Amp0000710
- Sari, S., & Dağ, İ. (2009). Belirsizliğe Tahammülsüzlük Ölçeği, Endişe ile İlgili Olumlu İnançlar Ölçeği ve Endişenin Sonuçları Ölçeğinin Türkçeye uyarlanması, geçerliliği ve güvenilirliği [Problem solving style, hopelessness, helplessness and haplessness as the predictors of psychopathology assessed by MMPI-2]. *Anadolu Psikiyatri Dergisi, 10*(4), 261–270.
- Sauer, K. S., Jungmann, S. M. Witthöft, M. (2020). Emotional and behavioral consequences of the covid-19 pandemic: The role of health anxiety, intolerance of uncertainty and distress (in) tolerance. *International Journal of Environmental Research and Public Health*, *17*(19), 7241. doi:10.3390/ijerph17197241
- Sher, L. (2020). The impact of the covid-19 pandemic on suicide rates. *Qjm: Monthly Journal of The Association of Physicians*, 113(10), 707–712. doi.10.1093/Qjmed/ Hcaa202
- Smith, B. M., Twohy, A. J., & Smith, G. S. (2020). Psychological inflexibility and intolerance of uncertainty moderate the relationship between social isolation and mental health outcomes during covid-19. *Journal of Contextual Behavioral Science, 18*, 162-174. doi.10.1016/j.jcbs.2020.09.005
- Sun, S., Goldberg, S. B., Lin, D., Qiao, S. & Operario, D. (2020). Psychiatric symptoms, risk, and protective factors among university students in quarantine during the covid-19 pandemic in China. *Global Health*, 17:15. doi:10.1186/s12992-021-00663-x
- Suokas, J., Suominen, K., Isometsä, E., Ostamo, A., & Lönnqvist, J. (2001). Long-term risk factors for suicide mortality after attempted suicide-findings of a 14-year follow-up study. *Acta Psychiatrica Scandinavica*, 104(2), 117-121. doi:10.1034/j.1600-0447.2001.00243.x
- Tabachnick, B., & Fidell, L. (2013). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.

- Tan, H. J., Marks, L. S., Hoyt, M. A., Kwan, L., Filson, C. P., Macairan, M. & Stanton, A. L. (2016). The relationship between intolerance of uncertainty and anxiety in men on active surveillance for prostate cancer. *The Journal of Urology, 195* (6), 1724-1730. doi:10.1016/j.juro.2016.01.108
- Tanner, J. L. & Arnett, J. J. (2009). The emerge of 'emerging adolthood'. In A. Furlong (Ed.), *Handbook of youth and young adulthood* (pp. 39-45). Routledge.
- Tecirli, N. D., Ucuz, G., & Ozel, F. (2020). İzolasyon, karantina, sosyal mesafe ve ruh sağlığı [Isolation, quarantine, social distancing and mental health]. *The Bulletin of Legal Medicine*, 25, 33-39. doi:10.17986/blm.2020.v25i.1412
- Topaloğlu, E. ve Atay, A. (2020). Kategorik verilerin analizinde logaritmik doğrusal modellerin kullanımı: İntihar olasılığı verileri üzerine bir uygulama [Use of logarithmic linear models in analysis of categorical data: An application on suicide risk data]. *Optimum Ekonomi ve Yönetim Bilimleri Dergisi,* 7(2), 565-580. doi:10.17541/optimum.686322
- Turkish Statistical Institute [TurkStat] (2020). Suicide Statistics. https://www.tuik.gov.tr/
- Twardawski, M., Steindorf, L. & Thielmann, I. (2020). Three pillars of physical distancing: Anxiety, prosociality, and rule compliance during the covid-19 pandemic. *PsyArXiv*. Advance online publication. doi:10.31234/osf.io/zkfyb
- Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner, T. E. (2010). The interpersonal theory of suicide. *Psychological review*, 117(2), 575–600. doi:10.1037/a0018697
- World Health Organization [WHO], (2019). Suicide Data (Report No. CC BY-NC-SA 3.0 IGO.) https://www.who.int/teams/mental-health-and-substance-use/suicide-data
- Yip, P. S. F., Cheung, Y. T., Chau, P. H., & Law, Y. W. (2010). The impact of epidemic outbreak: The case of Severe Acute Respiratory Syndrome (SARS) and suicide among older adults in Hong Kong. *Crisis*, *31* (2), 86-92. doi:10.1027/0227-5910/A00005
- Yook, K., Kim, K., Suh, S., & Lee, K. (2010). Intolerance of uncertainty, worry, and rumination in major depressive disorder and generalized anxiety disorder. *Journal of Anxiety Disorders*, 24(6), 623–628. doi:10.1016/j.janxdis.2010.04.003
- Zhang, J., & Li, Z. (2013). The association between depression and suicide when hopelessness is controlled for. *Comprehensive psychiatry*, *54*(7), 790–796. doi:10.1016/j.comppsych.2013.03.004
- Zhuo, K., & Zacharias, J. (2020). The impact of out-of-home leisure before quarantine and domestic leisure during quarantine on subjective well-being. *Leisure Studies*, 40(3), 321-337.

Ethical approval was obtained from Duzce University Scientific Research and Publication Ethics Committee with the decision number 2020/58 and dated 17.12.2020.

Statement of Contribution of Researchers to the Article:

The authors contributed equally to the article.

Conflict of Interest Statement

There is no conflict of interest

Statement of Financial Support or Acknowledgment:

No financial support was received from any institution for this study. No Acknowledgment.