



Research Article

## Fear of COVID-19 and Career Distress: Mediating Role of Visions About the Future

### COVID-19 Korkusu ve Kariyer Sıkıntısı: Gelecek Vizyonlarının Aracılık Rolü

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#### ABSTRACT

The COVID-19 pandemic has effected many aspects of people's lives including health, economy, and social life. Another area of life that is thought to be effected by the COVID-19 pandemic but has not yet been adequately studied is the career of individuals. This study aimed to investigate the mediating role of visions about the future (hope, optimism, pessimism) in the relationship between the fear of COVID-19 and career distress. The participants of the research consist of 331 individuals. Participants' ages range from 18-29 (21.43, SD = 1.86). The data collected within the scope of the purpose of the research were analyzed with the structural equation modeling method. According to the results obtained from the analysis, it was found that the fear of COVID-19 negatively effects visions about the future. However, visions about the future mediates the relationship between fear of COVID-19 and career distress. Visions about the future have been shown to have a fully mediating role in the relationship between fear of COVID-19 and career distress. The findings were discussed in light of the literature.

#### ÖZ

COVID-19 salgını sağlık, ekonomi ve sosyal yaşam dâhil olmak üzere insanların yaşamlarının birçok yönünü etkiledi. COVID-19 salgınından etkilendiği düşünülen ancak henüz yeterince çalışılmamış bir diğer yaşam alanı da bireylerin kariyeridir. Bu çalışma, COVID-19 korkusu ile kariyer sıkıntısı arasındaki ilişkide gelecek vizyonlarının (umut, iyimserlik, karamsarlık) aracılık rolünü araştırmayı amaçlamıştır. Araştırmanın katılımcıları 331 kişiden oluşmaktadır. Katılımcıların yaşları 18-29 (Ortalama = 21.43, SS = 1.86) arasındadır. Araştırmanın amacı kapsamında toplanan veriler, yapısal eşitlik modellemesi yöntemiyle analiz edilmiştir. Analizden elde edilen sonuçlara göre COVID-19 korkusunun gelecek vizyonlarını olumsuz etkilediği bulunmuştur. Bununla birlikte, gelecek vizyonları COVID-19 korkusu ile kariyer sıkıntısı arasında aracılık rolüne sahiptir. COVID-19 korkusu ile kariyer sıkıntısı arasındaki ilişkide gelecek vizyonlarının tam aracılık rolüne sahip olduğu görülmüştür. Elde edilen bulgular alan yazını ışığında tartışılmıştır.

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## 1. INTRODUCTION

There have been many waves of pandemics that have killed millions of people from past to present (Abdelrahman, 2020). The new pandemic that effects many countries globally today is COVID-19. COVID-19 was first reported as a disease caused by the coronavirus, which was seen in the Wuhan region of China in December 2019 (WHO, 2020a). As of July 2020, millions of people have been infected in many countries, and hundreds of thousands of others have died due to COVID-19 (WHO, 2020b).

The COVID-19 pandemic has become one of the contextual factors effecting human life, such as globalization, unemployment, precarious work, and rapid technological changes (Duffy, Blustein, Diener & Autin et al., 2016). With the pandemic, there have been great changes in many areas of life. People's lives have been adversely effected and restricted. People initially focused on death and life; however, with the prolongation of the pandemic, uncertainty and fear has begun to take over our relationships, our inner lives, and our work (Blustein & Guarino, 2020). The COVID-19 pandemic has created a significant impact on people and nations in areas related to public health, economy, society, and security (Nicola et al. 2020). It has also impacted the mental health of individuals significantly (Bhuiyan, Sakib, Pakpour, Griffiths & Mamun, 2020; Qiu et al., 2020; Wang et al., 2020).

Moreover, the pandemic has brought about direct effects on the careers of individuals, such as the flexibility of working hours (Spurk & Straub, 2020) and unemployment (Blustein et al., 2020). The quarantine of many people and the closure of workplaces have increased unemployment (International Labor Organization, 2020a). This has left people in a more uncertain environment regarding their future and career. It is expected that the COVID-19 pandemic will have a profound impact on individuals' career experiences, opportunities, and trajectories in the short and long term. Therefore, it is recommended to examine the interaction between contextual and individual factors of the consequences of the COVID-19 pandemic (Akkermans, Richardson & Kraimer, 2020). COVID-19, which is also evaluated as a career shock (Akkermans et al. 2020), is stated to have an impact on individuals' career anxiety (Mahmud, Talukder & Rahman, 2020). Therefore, it is thought that the COVID-19 pandemic may be associated with individuals' careers (Baert, Lippens, Moens, Sterkens & Weytjens, 2020; Guan, Deng & Zhou, 2020).

## The Relationship Between Fear of COVID-19 and Career Distress

Career distress, which is an important concept in the field of career, is defined as the difficulty experienced by individuals in making career decisions, avoiding career thoughts, or setting goals (Creed & Gagliardi, 2015). Career distress, which is common especially among young adults, has significant impacts on university students due to career indecision, the stress it causes in educational settings, making wrong choices, and creating negative effects on interpersonal relationships that will be necessary for starting a job (Benton, Robertson, Tseng, Newton & Benton, 2003; Schwatken, 2014; Şensoy & Siyez, 2019). The review of the literature shows that career distress is associated with various concepts, such as career indecision, anxiety, depression, self-efficacy, discovery, commitment, and career compromise (Creed & Blume, 2013; Creed & Gagliardi, 2015; Creed & Hennessy, 2016; Creed & Hood, 2013; Fuqua & Hartman, 1983; Hinkelman & Luzzo, 2007).

One variable that may be associated with university students' career distress maybe fear of COVID-19. Because the COVID-19 pandemic, which effects the whole world and is considered an important stress factor, has become significantly effective on the careers of individuals (Blustein et al., 2020; Spurk & Straub, 2020). Determination of the stress factors that have negative effects on individuals during the COVID-19 process will also increase the success of preventive and therapeutic interventions for individuals' mental health and career. The view that determination of the relationship of individuals' stress factors with their careers may contribute to the career guidance process (Hanks, 2018) also supports this situation. One of the stress factors that emerged in individuals during the COVID-19 pandemic is the fear of COVID-19 (Ahorsu et al., 2020). Fear of COVID-19 is also associated with negative situations, such as depression (Fitzpatrick, Harris & Drawve, 2020; Bakioğlu, Korkmaz & Ercan, 2020), stress, anxiety (Bakioğlu et al. 2020), and despair (Hacımusalar, Civan-Kahve, Yaşar & Aydın, 2020). On the other hand, it is known that an individual's career development is effected by negative situations such as depression, despair (Dieringer, Lenz, Hayden & Peterson, 2017), indecision, and fear (Hanks, 2018). In addition, studies have found that psychological distress and general emotional distress are associated with negative career-related outcomes (career decision-making difficulties, career concerns) (Fouad et al., 2006; Gati et al., 2011). Based on all these, we think that there may be a relationship between the

fear of COVID-19 and the individual's career distress. In this context, the following hypothesis has been developed to be tested.

H<sub>1</sub>: Fear of COVID-19 positively effects career distress.

### **Mediating Role of Visions About the Future**

Highlighting the positive features of the individual has an important place in eliminating negative situations (Terjesen, Jacofsky, Froh & Di Giuseppe, 2004). Visions about the future, which involve concepts of hope, optimism, and pessimism, are stated to be indicators of positive orientation towards the future (Akca, Korkmaz & Alkal, 2018). Hope refers to setting goals and the motivation to reach the goals that have been set (Synder, 2002). Individuals with a high level of hope determine demanding goals instead of easy ones and strive to achieve these goals (Hefferon & Boniwell, 2014). Optimism is defined as having strong anticipation that the future will be good despite all difficulties in life (Goleman, 2000). While optimistic individuals anticipate good things to happen, pessimistic individuals expect bad things to take place (Mahasnehm, Al-Zoubi & Batayeneh, 2013). Pessimism is defined as an expectation that something bad will happen (Carver, Scheier & Segerstrom, 2010). Pessimistic individuals think that they will not achieve a positive result no matter what they do (Peterson, 1988). Therefore, a high level of hope and optimism and a low level of pessimism show that the individual has a positive orientation towards the future.

It has been revealed by research that the levels of optimism, hope, and pessimism of individuals are closely related to the COVID-19 pandemic. (Arslan, Yıldırım, Tanhan, Buluş & Allen, 2020; Eryılmaz & Siraz, 2020). Optimism, hope, and pessimism levels are related to the stress experienced by individuals and the situations that are considered psychologically challenging (Furnham, 2013; Khoo & Bishop, 1997). Because stress and difficult life events reduce the resilience of individuals and cause an optimistic and hopeful perspective to become pessimistic (Scheier, Weintraub & Carver, 1986). The COVID-19 pandemic has caused individuals to experience many difficulties in terms of psychological, social, emotional, and behavioral aspects (Ahorsu et al., 2020; Fitzpatrick et al., 2020; Wang et al., 2020). With these difficulties, the stress and fear levels of individuals increased and their optimism and hopes for the future were replaced by pessimism (Jovančević & Miličević, 2020). In the light of these explanations, the following hypothesis has been developed to be tested.

H<sub>2</sub>: Fear of COVID-19 negatively effects visions about the future.

The visions about the future of individuals are also closely related to their careers (Akca et al., 2018; Bolukbasi & Kirdok, 2019). Previous research has shown that increased optimism and hope are positively associated with career problem resolution and adaptability (Korkmaz & Cenkseven Onder, 2019; Santilli, Marcionetti, Rochat, Rossier & Nota, 2017). Individuals being optimistic and hopeful and not being pessimistic serve as positive support in solving the problems they encounter (Maruta, Colligan, Malinchoc & Offord, 2000). This may cause optimism and hope to be negatively associated with career distress. Because career distress refers to the problems and difficulties experienced by individuals towards their careers (Creed & Gagliardi, 2015). In addition, career indecision, which is a component of career distress, is also related to individuals' problem-solving skills (Flores, Ojeda, Huang, Gee & Lee, 2006). In this context, the following hypothesis has been developed to be tested.

H<sub>3</sub>: Visions about the future negatively effects career distress.

COVID-19 pandemic effects people's hope, optimism, and pessimism levels that form their visions about the future (Arslan et al., 2020; Eryılmaz & Siraz, 2020; Hacımusalar et al., 2020). However, hope, optimism, and pessimism, which make up the visions about the future, are important concepts related to the career development of the individual (Akca et al., 2018; Bolukbasi & Kirdok, 2019; Korkmaz & Cenkseven Onder, 2019; Santilli et al., 2017). On the other hand, given that COVID-19 has an impact on career development (Baert et al., 2020; Guan et al., 2020), visions about the future may have a mediating role in a likely relationship between fear of COVID-19 and career distress. In this context, the following hypothesis has been developed to be tested.

H<sub>4</sub>: Visions about the future mediates the relationship between fear of COVID-19 and career distress.

### **The Present Study**

This research was conducted on university students. One of the reasons why the research was conducted on university students is that career decisions that will effect the rest of an individual's life are commonly made during university years (Sharf, 2017). Also, according to Super's theory, this period includes years when university students form their careers (Super, 1980). Another reason is that

university students, who make up a significant part of society, have also been negatively impacted by the COVID-19 pandemic, which has effected the whole world (Wang et al., 2020; Zolotov, Reznik, Bender & Isralowitz, 2020). One of the reasons is youth unemployment. According to the report of the International Labor Organization (2020b), unemployed youth are vulnerable in terms of the workforce. The COVID-19 pandemic crisis, on the other hand, has increased this vulnerability in youth and impacted them negatively (Blustein et al., 2020). Understanding the impact of the COVID-19 pandemic on people's careers and finding solutions is important (Rudolph & Zacher, 2020). Therefore, we think that this study is significant in terms of examining the role and effect of fear of COVID-19 on the career distress of university students.

This study is noteworthy as it is one of the rare studies that investigate the impact of the COVID-19 pandemic on people's careers. Blustein et al. (2020) raised a research agenda in the negative environment created by the COVID-19 pandemic. In this agenda, it was emphasized that the perceptions of young people, such as fears and intentions, should be focused on. The current study contributes to the efforts to reveal how young people are constructing this new reality. In other words, this study responds to the need to examine the effects of the crisis created by the COVID-19 pandemic.

Another significance of the study is that it investigates the effect of visions about the future, which involve hope, optimism, and pessimism, on

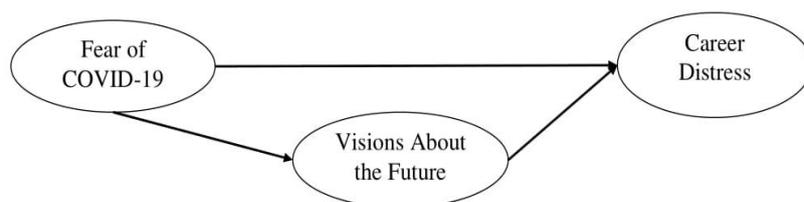
aimed to investigate the mediating role of visions about the future in the relationship between fear of COVID-19 and career distress. Accordingly, the findings obtained from the research were thought to both contribute to the understanding of the relationships between fear of COVID-19 and the variables in question and to help career and mental health professionals to develop and implement career intervention programs to protect and develop career advancement and psychological well-being of society (university students) in the face of the COVID-19 pandemic. The hypothetical model of the research is presented in Figure 1.

## 2. METHODS

This current study aims to reveal the relationship between university students' fear of COVID-19, visions about the future, and career distress. Therefore, in this current study, the cross-sectional research method was designed.

### 2.1. Participants

The participants of the study consisted of 331 university students [223 females (67.4%), 108 males (32.6%)] at the faculty of education, the faculty of economics and administrative sciences, the faculty of architecture, and the faculty of engineering in Turkey. A convenient sampling method was used in data collection. In the structural equation modeling, a minimum sample size of 150 was taken into account as a criterion (Anderson &



**Figure 1:** The Hypothesized Structural Model

the relationship between fear of COVID-19 and career distress. It is thought that the positive orientation of university students towards the future along with reducing their fear of COVID-19 can alleviate the career distress they experience. We propose that investigating the impact of the negative emotions created by the current COVID-19 pandemic on individuals' negative feelings about their future and career will contribute to the understanding of the COVID-19 pandemic in terms of the career guidance process. Therefore, this study

Gerbing, 1988). Participants' ages ranged from 18 to 29 (Mean = 21.43, SD = 1.86). Of the participants, %30.2 (n = 100) were first-year, 30.8% (n = 102) second-year, 18.5% (n = 61) third-year, and 20.5% (n = 68) fourth-year students. Additionally, 23 (6.9%) of the participants reported having a low socioeconomic status, 215 (65%) medium, 93 (28.1%) high.

## 2.2. Data Collection Tools

**The Fear of COVID-19 Scale (FCV-19S).** The scale was developed by Ahorsu et al. (2020) to measure the novel coronavirus fear, adapted to Turkish by Bakioğlu et al. (2020). In this adaptation study to Turkish, goodness of fit indices were found to be at a good level ( $\chi^2 = 22.08$ ,  $df = 9$ ,  $p < .001$ ;  $\chi^2/df = 2.45$ ; RMSEA = .03; CFI = .99; IFI = .99; GFI = .99; AGFI = .99; NFI = .99; TLI = .99; RFI = .99; SRMR = .014). At the same time, Cronbach's alpha internal consistency coefficient was determined as .88. The scale consists of one dimension and 7 items (e. g. 'I am most afraid of coronavirus-19). FCV-19S is a 5-point Likert type scale ( $1 = strongly disagree$  to  $5 = strongly agree$ ). High scores indicate a high level of fear of COVID-19. The Cronbach Alpha coefficient calculated from the data collected in the current study is .88.

**Visions about the Future (VAF).** The scale was developed by Ginevra et al. (2017) to measure the visions about the future (hope, optimism, pessimism), adapted to Turkish by Akca et al. (2018) in adolescents. In this adaptation study to Turkish, the goodness of fit indices were found to be acceptable ( $\chi^2 = 278.20$ ,  $df = 132$ ,  $\chi^2/df = 2.11$ , RMSEA = .06, CFI = .91, GFI = .92, TLI = .90). At the same time, the Cronbach Alpha internal consistency coefficient calculated for the sub-dimensions of the scale was .72 for Optimism, .70 for Pessimism, and .84 for Hope. The Cronbach Alpha internal consistency coefficient calculated for the total score of the scale was found to be .84. The Turkish form of the scale consists of 18 items and three sub-dimensions [e. g. 'I think I am an optimist' (optimism), 'I will not be able to realize what I really care about' (pessimism), 'I am sure that in the future I will be able to do something that interest me' (hope)]. VAF is a 5-point Likert type scale ( $1 = doesn't define me at all$  to  $5 = it describes me very well$ ). High scores obtained from the scale indicate that adolescents' views on future and career planning are positive. While the total score of each sub-dimension can be obtained from the scale, the total score can also be obtained. While taking the total score, all items in the pessimism sub-dimension are scored in reverse. The construct of the scale was tested using the confirmatory factor analysis (CFA) on the data collected in the current study in the young adult sample. As a result of the CFA, goodness of fit indices was found to be acceptable ( $\chi^2 = 345.52$ ;  $df = 131$ ;  $\chi^2/df = 2.64$ ; RMSEA = .07; CFI = .93; GFI = .90; TLI = .92). Cronbach's alpha internal consistency coefficients calculated for the sub-dimensions of the scale were .86 for Optimism, .80 for Pessimism, and .91 for Hope. Cronbach's alpha was .79 in this current

study's sample for the total score. The total score was used in this current study.

**Career Distress Scale (CDS).** The scale was developed by Creed, Hood, Praskova & Makransky (2016) to measure the level of distress individuals feel related to their career, adapted to Turkish by Şensoy & Siyez (2019). In this adaptation study to Turkish, original unidimensional model's goodness of fit indices was found to be:  $\chi^2 = 210.39$ ,  $\chi^2/df = 7.79$ , RMSEA = .117, AGFI = .860, GFI = .910, CFI = .870, SRMR = .07. When the reliability coefficients were examined in this study, Cronbach's alpha value was calculated as .81 for the total score of the CDS. The scale consists of one dimension and 9 items (e. g. 'I often feel down or depressed about the selecting a career). CDS is scored as a 6-point Likert type scale ( $1 = strongly disagree$  to  $6 = strongly agree$ ). High scores mean that career distress is high. For this sample of the current study, confirmatory factor analysis was performed and it was seen that the original unidimensional model's goodness of fit indices was acceptable:  $\chi^2 = 73.482$ ,  $\chi^2/df = 3.062$ , RMSEA = .07, AGFI = .906, GFI = .950, CFI = .944. Cronbach alpha was determined to be .83 for the CDS in this sample of the current study.

**The Personal Information Form.** The form was used to collect demographic information of the participants. Participants answered questions about age, gender, socio-economic status, getting coronavirus, and having/not having a significant illness.

## 2.3. Data Collection and Analysis

**Data Collection and Analysis** In the evaluation of the model,  $\chi^2/df$ , GFI, CFI, RMSEA goodness of fit values were used.  $\chi^2/df < 5$ , GFI  $> .85$ , CFI  $> .90$ , and RMSEA  $< .10$  as the assessment standards of the model fit index were used in this study (Kline, 2005; Marcoulides & Schumacher, 2001; Tabachnick & Fidell, 2007). Bootstrapping tests were performed to examine whether visions about the future mediated the relationship between the fear of COVID-19 and career distress (Preacher & Hayes, 2008). Bootstrapping Confidence Interval was estimated to reveal the indirect impact of fear of COVID-19 on career distress; 10.000 resampling and 95% confidence intervals were used in this process. Confidence intervals that do not contain zero indicate effects that are significant at .05. IBM SPSS Statistics 25.0 was used for the normality, independent samples t-test, ANOVA, and Pearson's correlation analysis. AMOS Graphics 24 was used for the structural equation model.

### 3. RESULTS

#### 3.1. Descriptive Statistics

The results of the analysis of the fear of COVID-19 were found to be significantly different in favor of females ( $t_{(329)} = 3.13, p < .01$ ). The mean fear of COVID-19 score of the female was 17.35 (SD = 5.61), while it was 15.30 (SD = 5.57) for males. Additionally, the fear of COVID-19 was determined to be significantly different according to the participants' socio-economic status ( $F_{(2, 328)} = 6.57, p < .01$ ). Scheffe test was conducted to find out between which groups the differences were. It has been observed that individuals with low (mean = 13.78, SD = 5.66) and high (mean = 15.67, SD = 5.43) socio-economic status are lower than individuals with medium (mean = 17.43, SD = 5.62) socio-economic status. On the other hand, the fear of COVID-19 was found to not differ significantly according to serious illness status, COVID-19 infection status in herself/himself, or in relatives.

#### 3.2. Correlation Analysis between the Main Variables

As shown in Table 1, the results of Pearson's correlation analysis showed that visions about the future were negatively correlated with the fear of COVID-19 ( $r = -.21, p < .001$ ) and, career distress ( $r = -.57, p < .001$ ). The fear of COVID-19, in turn, was positively correlated with career distress ( $r = .26, p < .001$ ).

variables (fear of COVID-19, visions about the future, career distress) and 19 observed variables were included in the measurement model. All of the standardized path coefficients obtained in the measurement model were found to be significant (Table 2). The goodness of fit values were examined in the validation of the measurement model. It was seen that the obtained goodness of fit values were at acceptable levels [ $\chi^2$  (df = 141, N = 331) = 393.91;  $p < .001$ ;  $\chi^2/df = 2.79$ ; GFI = .884; CFI = .906; RMSEA = .074 (LO = .07, HI = .08)]. The findings show that the structural equation model can be used to test the hypotheses of the measurement model.

#### 3.4. Findings of the Research Model

In this study, career distress was taken as the dependent variable, fear of COVID-19 as the independent variable, and visions about the future as the mediating variable. The research model is presented in Figure 2.

The goodness of fit indices of the research model were found to be significant [ $\chi^2$  (df = 141, N = 331) = 393.91;  $p < .001$ ;  $\chi^2/df = 2.79$ ; GFI = .884; CFI = .906; RMSEA = .074 (LO = .07, HI = .08)]. The path coefficients of fear of COVID-19 and visions about the future ( $\beta = -.27, p < .001$ ), visions about the future and career distress ( $\beta = -.89, p < .001$ ) were statistically significant. However, the path coefficient of fear of COVID-19 and career distress were not statistically significant. On the other hand, the indirect effect of the fear of COVID-19 in predicting career distress through the mediation of visions about the future in the model was found to

**Table 1:** The Correlation Coefficient Between the Fear of COVID-19, Visions About the Future and Career Distress

	<i>M</i> ± <i>SD</i>	Skewness	Kurtosis	1	2	3	4	5
1. Fear of COVID-19	16.68 ± 5.67	.34	-.59					
2. Visions about the future	62.69 ± 12.59	-.37	-.70	-.21***				
3. Optimism	18.10 ± 5.11	-.06	-.82	-.11***	.83***			
4. Pessimism	9.01 ± 3.93	.93	.01	.22***	-.67***	-.35***		
5. Hope	23.60 ± 6.40	-.18	-.94	-.19***	.89***	.62***	-.43***	
6. Career distress	27.94 ± 8.12	.03	.13	.26***	-.57***	-.42***	.57***	-.44***

Note. \*\*\* $p < .001$ ; *M*: Mean, *SD*: Standard deviation; *N* = 331.

#### 3.3. Findings of the Measurement Model

Before testing the hypotheses in the structural equation model, the measurement model was tested. All observed variables and latent variables were used in the measurement model. Three latent

be significant ( $\beta = .24, p < .001$ ). It seems that fear of COVID-19, and visions about the future are predicting 84% of variance of career distress ( $R^2 = .84, p < .001$ ).

**Table 2:** Findings of the Measurement Model

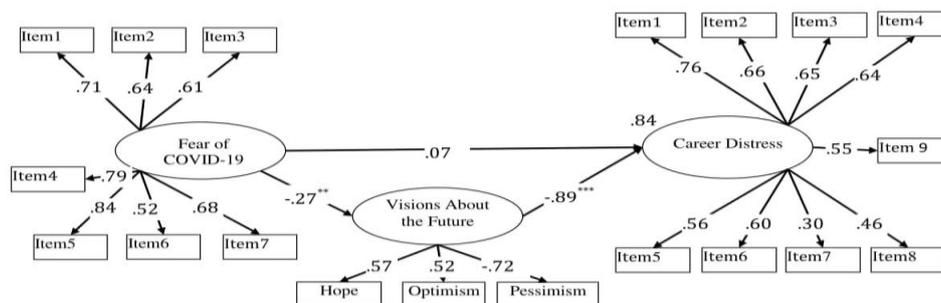
Latent Variables	Observed Variables	Path Coefficient	Cronbach Alpha
Fear of COVID-19	Item 1	.71	.88
	Item 2	.64	
	Item 3	.61	
	Item 4	.79	
	Item 5	.84	
	Item 6	.52	
	Item 7	.68	
Visions about the future	Hope	.57	.79
	Optimism	.52	
	Pessimism	-.72	
Career distress	Item 1	.76	.83
	Item 2	.66	
	Item 3	.65	
	Item 4	.64	
	Item 5	.56	
	Item 6	.60	
	Item 7	.30	
	Item 8	.46	
	Item 9	.55	

Note. N = 331; All path coefficient is significant at the  $p < .001$ .

Bootstrapping analysis was performed to determine whether the predictive coefficients obtained in the model were significant. While performing this analysis, 95% confidence interval and 10.000 resampling paths were preferred. The results are presented in Table 3.

As seen in Table 3, all path coefficients (except the fear of COVID-19 and career distress) in the model were statistically significant. Additionally, the range of lower and upper limit values is not zero. But fear

of COVID-19 and career distress path coefficient was not statistically significant. Therefore, visions about the future had a fully mediating role between fear of COVID-19 and career distress.



**Figure 2:** Mediation Model of the Relationships Between the Research Variables

**Table 3:** Bootstrapping Test of the Mediating Effect of Fear of COVID-19 on Career Distress

Pathways	Coefficient	Standard Error	95% CI	P
<b>Direct effect</b>				
Fear of COVID-19→Visions about the future	-.27	.08	-.39 to -.13	.002
Fear of COVID-19→Career distress	.07	.07	-.04 to .17	.295
Visions about the future→Career distress	-.89	.06	-.99 to -.78	.000
<b>Indirect effect</b>				
Fear of COVID-19→Visions about the future → Career distress	.24	.08	.11 to .37	.002

Note.  $N = 331$ , CI: Confidence interval.

#### 4. DISCUSSION

This study analyzed the extent to which university students' fear of COVID-19 and their visions about the future (hope, optimism, pessimism) predicted their career distress by using structural equation modeling. According to the results of the study, it was found that fear of COVID-19 and visions about the future predicted career distress significantly. Another finding of the study was that university students' visions about the future, consisting of hope, optimism, and pessimism, had a fully mediating role in the relationship between fear of COVID-19 and career distress.

The first finding of the study was that fear of COVID-19 didn't have a direct effect on career distress in the structural model. Therefore, the  $H_1$  hypothesis was rejected. However, it was seen that fear of COVID-19 have a positively indirect effect on career distress. The review of the literature indicated that there were no studies examining fear of COVID-19 and career distress together. However, in the short-term outcomes of COVID-19, it is predicted that the individual will have a negative career and psychological outputs (Akkermans et al., 2020). Studies are revealing that fear of COVID-19 causes career anxiety (Mahmud et al., 2020) and that the COVID-19 pandemic effects career development (Baert et al., 2020; Guan et al., 2020). Fear of COVID-19 effects individuals' depression, stress, and anxiety levels (Bakioğlu et al., 2020). On the other hand, factors, such as depression, stress, and anxiety are important predictors of career distress (Creed & Hood, 2013). Based on all these, it can be said that fear of COVID-19 has an impact on individuals' career distress.

Another finding of the study was that fear of COVID-19 significantly and negatively predicted the visions about the future, which involve hope, optimism, and pessimism.  $H_2$  hypothesis was accepted. When the literature is examined, it is possible to find studies showing that the COVID-19 pandemic has an impact on individuals' visions about the future (Arslan et al., 2020; Eryılmaz & Siraz, 2020; Hacimusalar et al., 2020). Visions about the future mean having a positive perspective towards the future. In other words, it reveals the levels of individuals' hope, optimism, and pessimism for the future as a whole (Akca et al., 2018; Ginevra et al., 2017). On the other hand, COVID-19 has brought about concerns about the future among individuals (Banerjee, 2020). For example, Bakioğlu et al. (2020) found a negative relationship between the fear of COVID-19 and positivity, which is one of the basic concepts of positive psychology. This situation shows that fear of COVID-19 has a negative effect on the individual's positive orientation towards the future.

We also found that visions about the future significantly and negatively predicted career distress.  $H_3$  hypothesis was accepted. Being not pessimistic about the future, being hopeful and optimistic has an impact on an individual's career (Akca et al., 2018; Bolukbasi & Kirdok, 2019; Korkmaz & Cenkseven Onder, 2019; Santilli et al., 2017). Career distress is another important concept in the field of career (Creed & Gagliardi, 2015). Career distress is a structure associated with negative concepts such as anxiety and despair, as opposed to being hopeful and optimistic (Creed et al., 2016). This result of the research supports the idea that having a positive future orientation alleviates career distress.

This study also aimed to investigate the mediating role of visions about the future, which consist of hope, optimism, and pessimism, in the relationship between fear of COVID-19 and career distress. As a result of the analysis, it was determined that visions about the future had a fully mediating role in the relationship between fear of COVID-19 and career distress. H<sub>4</sub> hypothesis was accepted. This result means that university students will experience less career distress when they have a positive future orientation along with reduced fear of COVID-19.

Career distress is a concept related to stress (Benton et al., 2003). Similarly, fear of COVID-19 is another variable that leads to stress (Bakioğlu et al., 2020). However, individuals with high levels of hope can overcome stressful situations (Celik, 2020). Therefore, it can be said that hope has an important role in the full mediating role of visions about the future in the relationship between fear of COVID-19 and career distress. On the other hand, it is stated that the COVID-19 pandemic is evaluated as a career shock and that it effects the career plans of individuals (Akkermans et al., 2020; Mahmud et al., 2020). A possible consequence of not making career planning is career distress (Creed et al., 2016). Also, optimism is stated to be an important predictor of career planning (Patton, Bartrum & Creed, 2004). Therefore, it can be said that optimism, too, has an important role in the full mediating role of visions about the future in the relationship between fear of COVID-19 and career distress. Fear of COVID-19 is known to be a predictor of depression and anxiety (Bakioğlu et al., 2020; Fitzpatrick et al., 2020). Depression and anxiety, on the other hand, are important concepts related to career distress (Creed & Hood, 2013). Similarly, pessimism is another concept related to depression and anxiety (Hirsch, Nsamenang, Chang & Kaslow, 2014; Zenger, Glaesmer, Höckel & Hinz, 2011). Therefore, this situation reveals that pessimism, too, has an important effect on the full mediating role of visions about the future, involving also pessimism, in the relationship between fear of COVID-19 and career distress. Instead of focusing on pathological conditions in traditional psychology understanding, positive psychology has created a unique perspective. Positive psychology focuses on the positive instead of pathology, which is neglected in the field of traditional psychology, to support the traditional understanding of psychology (Seligman & Csikszentmihalyi, 2000; Seligman & Pawelski, 2003). Therefore, from the perspective of positive psychology, this study revealed that it is important to increase the hope and optimism of individuals for the future and decrease their pessimism levels to reduce the impact of the fear of COVID-19 on the career distress.

According to the Career Construction Theory (CCT) (Savickas, 2005; 2013), individuals are expected to show adaptation to cope with the problems and traumas they experience in their careers. Adaptation is the outcome in the career construction model of adaptation. To achieve this outcome, the individual must first show adaptive readiness. Then, they use adaptability resources and give adapting responses. Eventually, the individual achieves adaptation. The first of these sequential steps is adaptive readiness. This step mostly reflects the personal characteristics of individuals. These features are represented by positive personality traits, such as hope, optimism, and a low level of pessimism (Rudolph, Lavigne & Zacher, 2017). The first facilitating step of the individual's career adaptation must be positive personality traits. In other words, achieving to cope with difficulties starts with positive personality traits (looking at the future positively). Therefore, when considered from the CCT framework, an individual's positive perspective (hope, optimism, low pessimism) for the future will reduce the impact of fear of COVID-19 on career distress.

Blustein (2006; 2013) put forward a framework to expand the traditional career choice and development theory in the Psychology of Working Framework. In this framework, the core assumptions about the important effects of working on human life are presented. Accordingly, working meets people's survival and power, social connection, and self-determination needs. In addition, it is stated that there is a need for a careful evaluation of the factors that shape, limit, and facilitate working life to fully understand the psychological nature of working. It has been observed that the fear of the COVID-19 pandemic, which may effect the working life and career decisions of the individual and the working world deeply, has an impact on career distress and visions of the future, which are among concepts that may be important in individuals' working lives. This result of the research contributes to understanding the nature of work and career choice of current career choice and development theories in the context of the pandemic.

According to Event Systems Theory (Morgeson, Mitchell & Liu, 2015), individual and contextual situations are in interaction with each other. According to this theory, strong events such as novelty and criticality are likely to initiate change. Therefore, in terms of this theory, it can be said that the context (the COVID-19 pandemic) and the characteristics of the individual (the fear of COVID-19, visions of the future: hope, optimism, and low pessimism) can together determine the

career distress of the individual and the consequences arising from career distress.

#### 4.1. Limitations

This research has some limitations. It was carried out on the students of two state universities in Turkey. It is important to conduct similar studies on students at universities with different cultures for the generalizability of the research. In addition, this study was carried out in a country where Western and Eastern cultural characteristics are intertwined. Similar studies can be conducted separately in samples with the characteristics of Western and Eastern cultures so that the results can be generalized. The research was conducted with university students. University life is a period when work life and career decisions are usually made, and career distress can frequently show up during this period (Sharf, 2017). Therefore, similar studies can be conducted on different employee groups, such as white/blue-collar workers or young workers with chronic diseases. The COVID-19 pandemic has led to socio-economic consequences, such as economic crisis, social isolation, and suspension of education (Nicola et al., 2020). For this reason, studies examining the regulatory roles of such socio-economic variables in the relationship between fear of COVID-19 and career distress can be planned. This study was designed to reveal short-term consequences. In future studies, longitudinal studies can be conducted to reveal the long-term consequences of the COVID-19 pandemic. Finally, the predictive role of the fear of COVID-19 in the research model examined in this study was discussed. In future studies, the mediating and moderator role of the fear of COVID-19 in the relationships between career-related concepts can be examined.

#### 4.2. Conclusion

The present study revealed that visions about the future had a mediating role in the relationship between the fear of COVID-19 and career distress. It can be said that the findings obtained will contribute to the understanding of the individual's problems that will arise in his/her career, which covers a significant part of his/her life during and after the COVID-19 and contribute to the studies to be done to protect mental health.

Based on the results of the current study, some recommendations can be made for the areas of research and application. Investigating the relationship between fear of COVID-19 and other career behaviors, such as proactive career behaviors of individuals and career indecision may be important in terms of contributing to the related literature. To reduce the possible negative effects of

the COVID-19 pandemic on careers, relevant institutions/organizations should take the necessary steps to cope. The career and psychological counseling centers of universities can conduct strengthening interventions for the careers of university students during and after the pandemic. This study shows that it is important to identify university students who experience the fear of COVID-19 and feel career distress. The effects of fear of COVID-19 on career distress can be evaluated in students who score high on the career distress scale after screening measurements. As a practical use of the theoretical findings, career counselors can use CCT to reduce the negative effects of the fear of COVID-19 on clients' career distress. Starting from the first step (adaptive readiness: hope, optimism, low pessimism) in the CCT model of adaptation, the steps of adaptation can be used. For this purpose, the starting point can include determining the direction of the future orientation of the individual (positive-negative). In addition, the Life Design Group Guide (Barclay & Stoltz, 2016), My Career Story Workbook (Savickas & Hartung, 2012), and Career Style Interview (Taber, Hartung, Briddick, Briddick & Rehfuß, 2011) interventions can be employed to help the individual to cope with the problems in the COVID-19 pandemic and to achieve a career transition. Intervention programs can be organized to contribute to creating a positive perspective towards the future in coping with career distress due to fear of COVID-19. These programs can be administered to priority groups, such as graduates, to-be-graduates, and new employees. Intervention programs can be carried out online. Also, it may be beneficial to ensure that the individual has a positive orientation towards the future in therapies offered to individuals who have career distress due to COVID-19.

#### ETHICS DECLARATIONS

**Funding:** No grant funding was obtained or utilized for the completion of this study.

**Conflict of interest:** The authors declare that they have no conflict of interest.

**Ethical Approval:** All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

**Informed Consent:** Informed consent (online) was obtained from each respondent.

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