Life goals and proactive career behaviors: The mediating role of visions about the future and the moderating role of intolerance of uncertainty

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Abstract
Dominated by uncertainties, today's work world pushed university students to exhibit proactive career behaviors. Thus, this created a need for more research conducted to determine the variables associated with proactive career behaviors, on the grounds that additional research may contribute to an increase in proactive career behaviors. In this context the study explored the mediating role of visions about the future and the moderating role of intolerance of uncertainty in the relationship between university students' life goals and their proactive career behaviors. The study was carried out with 519 students (299 females and 220 males) studying at a university in the Eastern Mediterranean Region of Turkey. The Scale of Setting Life Goals with Respect to Positive Psychotherapy, the Visions about the Future Scale, the Career Engagement Scale, and the Intolerance of Uncertainty Scale were employed as data collection tools. Data were analyzed using correlation analysis, structural equation modeling methods, and regression analysis based on the bootstrap method. The correlation analysis revealed a positive relationship between proactive career behaviors, life goals and visions about the future, and a negative relationship between proactive career behaviors and intolerance of uncertainty. Furthermore, the analyses put forth that visions about the future have a mediating role in the relationship between life goals and proactive career behaviors and that intolerance of uncertainty has a moderating role in the same relationship. Increasing university students' life goals and their visions about the future and reducing their intolerance of uncertainty will help them exhibit proactive career behaviors.

Keywords Life goals · Visions about the future · Intolerance of uncertainty · Proactive career behaviors

Introduction

The nature of career has changed tremendously. With this change, graduates are faced with a much more competitive labor market compared to the past and encounter difficulties related to finding jobs and being employed (Helyer & Lee, 2014; Tomlinson, 2012). This led university students to be the primarily responsible ones in planning and managing their careers, to be self-directed, and to do something different than usual (Smith, 2010; Sullivan & Baruch, 2009). In other words, the necessity for students to exhibit proactive career behaviors became almost inevitable (Direnzo & Greenhaus, 2011; Verbruggen & Sels, 2010).

Proactive career behaviors are important behavioral patterns that increase the employability of individuals and facilitate their transition from the student role to the employee role (Claes & Ruiz-Quintanilla, 1998). In addition, previous studies revealed that many important variables related to individuals' careers are associated with proactive career behaviors. The limited number of studies carried out in Turkey put forth that proactive career behaviors are positively associated with core self-evaluations and subjective career success (Gençer et al., 2021), psychological empowerment (Uncuoğlu-Yolcu & Çakmak, 2017), and personality traits such as openness to experience, extroversion and responsibility (Halıcı-Karabatak, 2018). Furthermore, international studies revealed that proactive career behaviors have positive relationships specifically with future work self (Cheah et al., 2020; Lu, 2020), career adaptation (Lu, 2020; Taber & Blankemeyer, 2015), career success (Cha et al., 2017), and job and life satisfaction (Hirschi, 2014; Kowsikka & James, 2019).

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Relationships Between Proactive Career Behaviors, Visions about the Future, and Life Goals

Proactive career behaviors are actions that individuals take to achieve their career goals (De Vos et al., 2009). Behaviors for networking, consultation, and skill development are prominent proactive career behaviors (Claes & Ruiz-Quintanilla, 1998; De Vos et al., 2009). Networking refers to individuals establishing and maintaining relationships with people they can seek information, advice, or assistance. Consultation involves individuals getting information on their careers from experts and experienced individuals. Finally, skill development refers to individuals' attempts at mastering the tasks about their career field (Claes & Ruiz-Quintanilla, 1998; De Vos et al., 2009).

One of the important antecedents of proactive career behaviors is having goals (De Vos et al., 2009; Grant & Ashford, 2008) since goals motivate to take action (Hadley & MacLeod, 2010) and this becomes a resource for proactive behavior. Indeed, De Vos et al. (2009) and Stickland (1996) also pointed to career goals as one of the important determinants of proactive career behaviors. University times is a period in which students' career goals should be determined. However, in this process, in addition to career goals, life goals for areas such as education, relationships, and entertainment also come to the fore (Eryılmaz, 2010; Nair, 2003). While educational goals involve individuals planning what kind of training they will receive in the future, and relationship goals involve individuals' demands and expectations for their social and emotional relationships, entertainment goals involve activities that individuals plan to do for satisfaction and relaxation (Eryılmaz, 2010; Miller, 1991; Nair, 2003). These goals that are about different life areas influence each other (Emmons, 2003). In other words, an activity done for relationship goals, educational goals or entertainment goals can also help achieve career goals. Thus, while individuals' having career goals is effective on proactive career behaviors (De Vos et al., 2009; Stickland, 1996), relationship goals, educational goals, and entertainment goals can have a similar effect. For instance, meeting new people for relationship goals or engaging in social activities for entertainment goals can support networking, which is a proactive career behavior. Similarly, getting specific training for educational goals can support skill development, which is also a proactive career behavior. In line of these explanations, the following hypothesis was developed to be tested.

H$_1$: Life goals are a significant positive predictor of proactive career behaviors.

Important source of motivation for proactive career behaviors can be visions about the future that involves hope and optimism for the future and not being pessimistic (Hirschi, 2014; Lopes & Cunha, 2008). Hope, optimism, and low level of pessimism are effective in individuals' careers (Ginevra et al., 2017; Niles et al., 2011; Savickas, 2013). Optimism and hope provide the power to take action towards goals (Niles et al., 2011; Savickas, 2013; Sun & Shek, 2012). Optimistic individuals tend to exert more effort and be persistent, and this helps them to take more proactive steps than pessimists (Carver et al., 2010; Ginevra et al., 2017). Pessimism, on the other hand, is associated with individuals going through intense indecision about their career, which may prevent them from engaging in proactive behaviors (Braunstein-Bercovitz et al., 2012). In addition, pessimists are in passive waiting mode because of their low motivation to engage in exploratory activities, which are proactive behaviors (Bryant & Cvengros, 2004). Similarly, active coping strategies based on hope and the desire to reach goals are also effective on proactive behaviors (Hirschi, 2014; Snyder, 2002). Hope provides support for proactive behaviors by adding the desire to create planning ability and reach determined goals in individuals (Lopes & Cunha, 2008). Furthermore, hope is positively related to the increase in positive affect and negatively related to the increase in negative affect in university students (Yalnizca-Yildirim & Cenkseven-Önder, 2022). Positive affect supports proactive behaviors, while negative affect creates a motivation for individuals to avoid, which is the opposite of proactive career behaviors (Bindl et al., 2012). In support of these statements, Hirschi et al. (2014) also determined in his study that hope is a positive predictor of proactive career behaviors. On the other hand, low optimism and hope are associated with attitudes and behaviors that are the opposite of proactive career behaviors such as indecision and inability to act (Creed et al., 2002).

Considered as sources of motivation for proactive career behaviors, hope and optimism are also closely related to individuals' life goals (Carver et al., 2010; Snyder, 2000). Goals are a cognitive part of hope (Snyder, 2002). It is stated that hope increases individuals' motivation to determine goals and working towards these goals (Hirschi, 2014). While individuals' having life goals increases their hopes, lack of goals is one of the reasons for hopelessness (Snyder, 2000; Snyder, 2002). Hope is a motivational state that involves a sense of agency and pathways for goals. Agency refers to the determination to initiate and maintain the effort required to achieve the goal. Pathways, on the other hand, refers to the plans to achieve the goal. These components are strongly related and act together in a unified way to provide hope for the individual (Santilli et al., 2014). As a matter of fact, the result of Korkmaz and Cenkseven-Önder's (2019) study arguing that life goals are a predictor of hope

also supports these statements. Optimism, also, functions as a support mechanism against difficulties in the process of individuals reaching goals (Scheier & Carver, 1992). Furthermore, optimism is also closely related to individuals having goals (Carver et al., 2010) since goal setting forms a source of motivation for achieving the goal. Individuals having goals and their motivation to achieve these goals reduce their pessimism and increase their optimism (Carver et al., 2003) because having goals is a source of an optimistic attitude in the face of difficult situations by activating coping strategies such as accepting the situation, using humor and looking at difficult situations from different angles, while lack of goals can cause individuals to avoid the difficult situations and take on a pessimistic mood through denial and stress (Scheier et al., 2001).

In the light of theoretical explanations and previous studies, it was revealed that individuals' having life goals is an important factor shaping their visions about the future (Carver et al., 2010; Korkmaz & Cenkseven-Önder, 2019; Santilli et al., 2014; Snyder, 2002). Furthermore, individuals' visons about the future are factors that contribute positively to their motivation to engage in proactive career behaviors (Creed et al., 2002; Hirschi, 2014; Niles et al., 2011; Snyder, 2002). Therefore, visions about the future can have a mediating role in the relationship between life goals and proactive career behaviors. In this context, the following hypothesis was developed to be tested.

H$_2$: Visions about the future play a mediating role in the relationship between life goals and proactive career behaviors.

The Moderating Role of Intolerance of Uncertainty

Intolerance of uncertainty is the tendency to fear future events that are unpredictable and uncertain (Buhr & Dugas, 2002). The level of intolerance of uncertainty had become an important factor for individuals in today's career understanding (Arbona et al., 2021; Lee & Jung, 2021) since today there is a career structure that is difficult to predict and has uncertainties (Sonnentag, 2017; Spurk et al., 2011). Successful career management requires individuals to be able to cope with uncertain situations (Rodrigues et al., 2015). In particular, the ability of young individuals to tolerate uncertainty is considered as a situation that provides long-term gains, as it can lead to initiatives in different types of work and work areas (Rindfuss et al., 1999).

In today's career structure, where uncertainty is dominant, individuals' levels of intolerance of uncertainty may have an impact on proactive career behaviors because intolerance of uncertainty is effective on individuals' behavior (Jacoby et al., 2016; Tanovic et al., 2018). Studies revealed that intolerance of uncertainty is a positive predictor of passive behaviors, contrary to proactive behaviors (Huang et al., 2019; Liao & Wei, 2011). Individuals characterized by higher intolerance of uncertainty tend to experience higher levels of anxiety and have difficulties with career decision processes (Arbona et al., 2021). These anxiety and indecision experienced due to uncertainty are expressed as motivators for avoidance, unlike proactive behaviors (Meijers, 2002). One of the important elements in exhibiting proactive behaviors is that individuals perceive current situations positively and make preparations for these situations by making predictions (Lee, 2019). However, individuals with high intolerance of uncertainty tend to perceive uncertain situations negatively and have great difficulties in predicting, preparing and taking action in uncertain situations (Buhr & Dugas, 2002; Huang et al., 2019; Liao & Wei, 2011). Considering the fact that there are intense uncertainties in the career field in the twenty-first century (Sonnentag, 2017; Spurk et al., 2011), intolerance of uncertainty can create an obstacle for individuals to exhibit proactive career behaviors. In addition, the level of intolerance of uncertainty can also be effective on individuals' life goals. The ability to set goals and create new pathways is based on the idea that the world is orderly and predictable (Snyder et al., 2002). Thus, this can be quite challenging for individuals with high intolerance of uncertainty because individuals with high intolerance of uncertainty may think that the world is irregular and unpredictable, finding even the smallest uncertainty situations distressing and challenging (Buhr & Dugas, 2002). This can make intolerance of uncertainty an important factor in forming life goals. Furthermore, individuals need to determine concrete ways to achieve the goals they set. Individuals have to produce alternative ways necessary to overcome the obstacles encountered while following these pathways that lead to their goals (Ritschel, 2005). However, individuals with a high intolerance of uncertainty define uncertainty as an obstacle, and may have difficulty in producing alternatives in these situations (Deschenes, 2010). This may cause intolerance of uncertainty become an effective factor on life goals.

Based on the explanations on the relevant theoretical framework, the level of intolerance of uncertainty can be considered as a structure that can have an impact on individuals' life goals and proactive career behaviors. Therefore, intolerance of uncertainty can serve as a moderator in the relationship between life goals and proactive career behaviors. In this context, the following hypothesis was developed to be tested.

H$_3$: Intolerance of uncertainty plays a moderating role in the relationship between life goals and proactive career behaviors.

The Present Study

In today's career understanding, proactive career behaviors have become important behavior patterns for university students. Especially in the transition from the student role to the employee role, displaying proactive career behaviors has significant positive effects on employability (Claes & Ruiz-Quintanilla, 1998; De Vos et al., 2009). Individuals in Turkey experience difficulties in transitioning from the student role to the employee role (Çivilidağ, 2019). The obstacles in front of the employment of young people in Turkey, especially the ones stemming from them, need to be examined from different perspectives (Yavuzaslan & Dağlıoğlu, 2019). In this context, considering that proactive career behaviors are an important individual factor affecting employability, it is necessary and important to conduct this study with Turkish university students. In addition, individuals displaying proactive behaviors about their careers became one of the basic qualifications sought by employers (Brown et al., 2006). Furthermore, proactive career behaviors are important predictors of career success (Thomas et al., 2010). Therefore, it is of great importance to reveal the variables that are predictive of university students' proactive career behaviors. University times is a period in which individuals intensely form life goals for the future (Nair, 2003). Individuals shape their futures in line with the goals they form in this period. In addition, university students may encounter various career crises during this period (Kantaş et al., 2018). The fear of starting a career and the increasingly complex job market can have an impact on individuals' optimism, pessimism and hopes (Kalafat, 2012). In addition to these, intense uncertainties prevail in the period when individuals transition to business life in Turkey. The inability to make clear plans for the future makes students' level of intolerance of uncertainty an important factor in this process. In the light of these explanations, in this study conducted with Turkish university students, it is very important to address proactive career behaviors in the context of life goals, visions about the future and intolerance of uncertainty. Also, this study is necessary and important because it can guide the practices that will accelerate and facilitate university students' transition to work life.

Since the study participants are Turkish university students, it is also important to discuss the relationship between the Turkish culture and the study variables. Although the Turkish society is affected by the globalizing world, it still preserves its collectivist culture (Tagay et al., 2016). For this reason, it is a generally accepted fact that in Turkish society individuals' freedoms, independence and autonomy are restricted by others displaying an overprotective attitude towards individuals since

their childhood (Özdemir & Çok, 2011). This situation may have an impact on the proactive career behavior levels of Turkish university students because proactive behaviors are the product of a completely autonomous attitude (Grant & Ashford, 2008). In addition, individuals in Turkish culture attach great importance to their social circle' views on them, and this is reflected in their lifestyles and attitudes (Siviş, 2002). Accordingly, while Turkish University students acquire life goals in areas such as education, career, entertainment, and relationships, instead of internal life goals, they can set external life goals based on the Turkish value system, which are accepted by the society. In Turkish culture, the tendency to avoid uncertainty is high (Sargut, 2010). In societies, where the tendency to avoid uncertainty is high, individuals try to be successful by imitating successful people or organizations in situations with high uncertainty (Sargut, 2009). Due to the high tendency to avoid uncertainty, a life-long employment guarantee is hoped (Sargut, 2010). As a result, there is an expectation in Turkish society that after graduating from university, young people should transition to work life as soon as possible and guarantee their lives economically. The prolongation of this process can be associated with the failure of individuals (Sargut, 2010). However, there is a major employment problem in Turkey. The latest data revealed that the unemployment rate among Turkish young people is 33.7% (Turkish Statistical Institute TURKSTAT, 2021). University students are unsure whether they will be able to quickly transition into work life after graduation. Getting more and more complex with increasing unemployment rates, the job market may decrease young people's optimism and hopes and increase their pessimism (Kalafat, 2012).

The present study aimed to examine the mediating role of visions about the future and the moderator role of intolerance of uncertainty in the relationship between Turkish university students' life goals and proactive career behaviors. Figure 1 presents the hypothetical model of the study.

Method

Participants

Due to the restrictive effects of the COVID-19 pandemic, the study participants were determined using the convenience sampling method. Participants consisted of 519 students (299 females [57.6%] and 220 males [42.4%]) studying at a university in the Eastern Mediterranean Region of Turkey. The participants' age range varied between 18 and 24 and their mean age was 20.86 (SD = 1.30). The two hundred and two of the participating students were attending the Faculty of Economics and Administrative Sciences, 183 the Faculty

Fig. 1 The hypothetical model
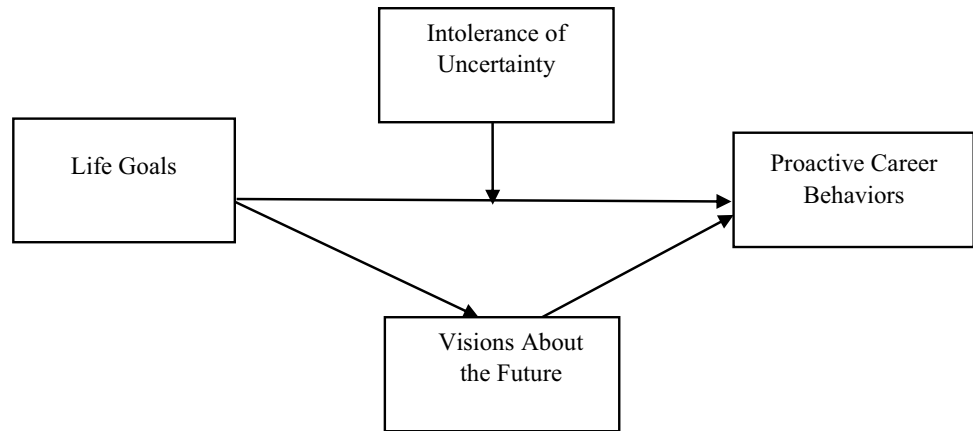
Table 1 Distribution of the students by Gender and Class Level

Class Level	Female		Male		Total	
	f	%	f	%	f	%
1st year	50	9.6	48	9.3	98	18.9
2nd year	97	18.7	49	9.4	146	28.1
3rd year	101	19.5	96	18.5	197	38
4th year	51	9.8	27	5.2	78	15
Total	299	57.6	220	42.4	519	100

of Engineering, and 134 were attending the Faculty of Education. The distribution of the participants by their years and gender is presented in Table 1.

Data Collection Tools

The Scale of Setting Life Goals with Respect to Positive Psychotherapy

The Scale of Setting Life Goals with Respect to Positive Psychotherapy was developed by Eryılmaz (2012) to measure whether university students set life goals. The scale has three sub-dimensions, namely career goals, relationship goals, and entertainment goals. The four-point Likert type scale has nine items and options ranging from "strongly disagree (1)" to "strongly agree" (4) (e.g., "I have planned what kind of trainings I will receive throughout my life"). While the minimum score that can be obtained from the scale is nine, the maximum score is thirty-six. High scores indicate individuals having life goals. The 3-factor structure obtained after the exploratory factor analysis performed during the scale development process explained 69.5% of the total variance. The goodness of fit indices related to the confirmatory factor analysis were in the acceptable range ($\chi 2/$ df = 2.08; NFI = .94; IFI = .97; CFI = .97; GFI = .94; RMSEA = .07). ($\chi 2/$ df = 2.08; NFI = .94; IFI = .97; CFI = .97; GFI = .94;

RMSEA = .07). The Cronbach's alpha value calculated for the reliability analyzes was found to be .80 for the whole scale.

The Visions about the Future Scale

Developed by Ginevra et al. (2017), the Visions about the Future Scale measures individuals' visions about their future (hope, optimism, pessimism). The Turkish adaptation of the scale was conducted by Akça et al. (2018). The Turkish version of the scale consists of 18 in total. The five-point Likert type scale has 3 sub-dimensions, namely hope, optimism, and pessimism. The item options range from "Doesn't describe me at all (1)" to "Describes me very well (5)" (e.g., "I feel like I'll be pretty good in the future"). While the lowest score that can be obtained from the scale is 18, the highest score is 90. High scores indicate that individuals have a positive view of the future. The goodness of fit indices regarding the 3-dimensional structure of the original scale were found to be in the acceptable range after the confirmatory factor analysis performed within the scope of validity analyzes during the scale adaptation stage ($\chi 2/$ df = 2.11; RMSEA = .06; CFI = .91; GFI = .92; TLI=. 90). The Cronbach's alpha value calculated for the reliability analyzes of the adaptation study was found to be .81 for the whole scale.

Career Engagement Scale

Developed by Hirschi et al. (2014), Career Engagement Scale measures the level to which individuals are engaged in proactive career behaviors. The scale was adapted to Turkish by Korkmaz et al. (2020). The adaptation study was carried out with a group of university students. The nine-item five-point Likert type scale has one dimension. The scale item options range from "Hardly never (1)" to "Very frequently (5)" (e.g. "I voluntarily participate in further education, training, or other events to support my career"). While the lowest score that can be obtained from the scale is nine, the highest score is 45. High scores from the Career Engagement Scale indicate a high level of exhibited proactive career behaviors. The goodness of fit indices regarding the one-dimensional structure of the scale similar to the original version were found to be in the acceptable range after the confirmatory factor analysis performed to examine the structure validity of the scale's Turkish version (χ2/ df = 4.9; RMSEA = .09; SRMR = .06; GFI = .92; TLI = .93). The Cronbach's alpha value calculated for the reliability analyzes of the adaptation study was found to be .81 for the whole scale.

Intolerance of Uncertainty Scale

Developed by Carleton et al. (2007), the Intolerance of Uncertainty Scale measures individuals' cognitive, affective, and behavioral response tendencies towards uncertain events and situations. By analyzing data collected from university students, the scale was translated into Turkish by Sarıçam et al. (2014). The 12-item scale has two sub-dimensions, namely prospective anxiety and inhibitory anxiety. The scores to be obtained from the scale vary between 12 and 60. Higher scores indicate more intolerance of uncertainty. The item options range from "Does not fit at all (1)" to "Fits very well (5)" (e.g., "When I'm uncertain, I can't

function very well"). The goodness of fit indices regarding the two-dimensional structure of the scale similar to the original version were found to be in the acceptable range after the confirmatory factor analysis performed during the Turkish adaptation study (χ2/ df = 3.06, RMSEA = .073, SRMR = .046, CFI = .95; GFI = .94; IFI = .95). The Cronbach's alpha value calculated for the reliability analyzes of the adaptation study was found to be .88 for the whole scale.

Procedures and Ethics

The study data were collected from volunteer university students. The researcher carried out the data collection online (Google Forms) in the Fall of 2021. All of the participants gave their written informed consent. No personally identifiable information was requested from the participants. The study was performed under the Declaration of Helsinki and was approved and registered by the Ethics Committee of Cukurova University (E.214638).

Data Analysis

Before the analysis, whether the data showed a normal distribution or not was tested and the results revealed a normal distribution. The relationships between life goals, visions about the future, intolerance of uncertainty, and proactive career behaviors were examined by Pearson correlation coefficient analysis. A structural equation model using full information maximum likelihood estimation was conducted to assess the mediating role of visions about the future in the relationship between life goals and proactive career behaviors. As Fig. 2 shows, life goals were considered to be an endogenous latent variable while visions about the future was considered as the latent variable acting as a mediator, and proactive career behaviors was the latent and dependent variable. In order to assess the goodness of fit of the model, χ2/df, Goodness of Fit Index (GFI), Tucker-Lewis Index

Fig. 2 Mediation model of the relationship between the study variables. *Note.* The coefficients between the latent variables (those in the ellipses) and the coefficients between each latent variable and their observed variable (those in the rectangles) are standardized coefficients. The coefficient expressed in parentheses is the coefficient between life goals and proactive career behaviors before visions about the future was included in the model. ***p < .001
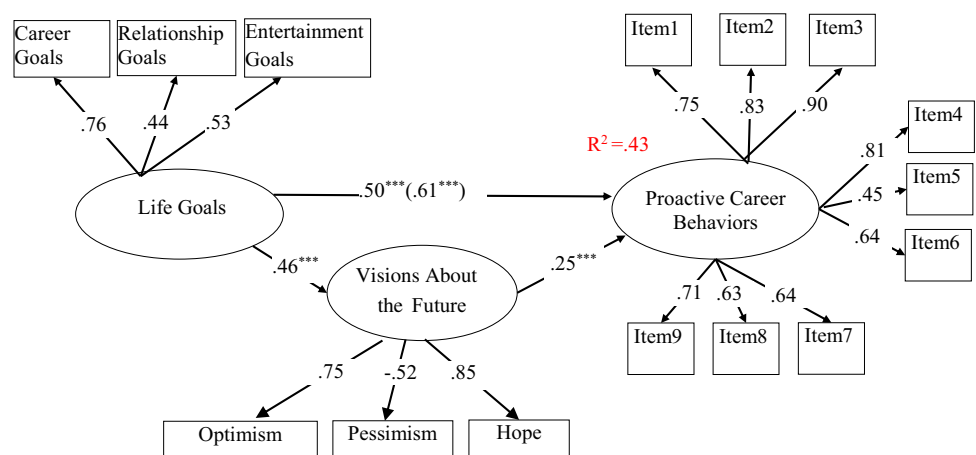
(TLI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) values were checked. $\chi 2$ / df < 5, CFI > .90, GFI > .90, TLI > .90, and RMSEA < .10 were used as assessment standards (Kline, 2005; Marcoulides & Schumacher, 2001; Tabachnick & Fidell, 2007). Bootstrapping tests were performed to examine whether visions about the future mediated the relationship between life goals and proactive career behaviors (Preacher & Hayes, 2008). A regression analysis based on the bootstrap method was conducted to determine whether intolerance of uncertainty had a moderating role in the relationship between life goals and proactive career behaviors. It is argued that the Bootstrap method gives more reliable results compared to traditional methods (Hayes, 2018). 10,000 resamples and a 95% confidence interval were used in the Boostrap analyzes to determine both the mediator and moderator effects. Data analyzes were performed with SPSS 25.0, Amos AMOS Graphics 24, and Process Macro 3.5 programs.

Findings

Findings Regarding the Correlation Analysis Between the Variables

Table 2 presents the correlation values between participants' life goals, visions about the future, intolerance of uncertainty, and proactive career behaviors scores.

As seen in Table 2, proactive career behaviors were positively associated with life goals (r = .44, p < .01) and visions about the future (r = .41, p < .01), whereas proactive career behaviors were negatively associated with intolerance of uncertainty (r = −.32, p < .01). In addition, a significant positive relationship was found between visions about the future and life goals (r = .30, p < .01).

Findings Regarding the Study Model

The model regarding the mediating role of visions about the future in the relationship between life goals and proactive career behaviors was tested. The findings are presented in Fig. 2.

First, the path coefficient between life goals and proactive career behaviors was examined without including visions about the future in the model. The goodness of fit values of this model were within acceptable limits [$\chi 2$ (47, N = 519) = 183.355; p < .001; $\chi 2$/ df = 3.90; TLI = .94; CFI = .96; GFI = .94; RMSEA = .07]. The path coefficient between life goals and proactive career behaviors was significant (β = .61, p < .001). After this analysis, the goodness of fit values of the model in which visions about the future played a mediating role in the relationship between life goals and proactive career behaviors were tested. The goodness of fit values of this tested model were also acceptable [$\chi 2$ (83, N = 519) = 320.780; p < .001; $\chi 2$/ df = 3.86; TLI = .91; CFI = .93; GFI = .92; RMSEA = .07]. The path coefficients between life goals and visions about the future (β = .46, p < .001) and visions about the future and proactive career behaviors (β = .25, p < .001) were statistically significant. Furthermore, after the inclusion of visions about the future in the model, the path coefficient between life goals and proactive career behaviors was still significant (β = .50, p < .001). Life goals and future visions explained 43% of the variance in the proactive career behaviors.

Bootstrapping analysis was performed to test the significance of the mediating role of visions about the future in the relationship between life goals and proactive career behaviors. Bootstrapping analysis was performed with 95% confidence interval and 10,000 resampling, and the results are presented in Table 3.

As can be seen in Table 3, the lower and upper confidence intervals of all path coefficients did not include zero. The mediating role of visions about the future in the relationship between life goals and proactive career behaviors was significant (β = .11, p < .001; CI [.06, .17]). Visions about the future played a partial mediating role in the relationship between life goals and proactive career behaviors.

Moderating Effect

Regression analysis based on the boostrap method was conducted to test the moderating effect of intolerance of uncertainty on the effect of life goals on proactive career behaviors. The analyzes were performed with Process Macro developed by Hayes (2018). The bootstrapping

Table 2 The correlation coefficient between life goals, visions about the future, intolerance of uncertainty, and proactive career behaviors

	$M \pm SD$	Cronbach's α	1	2	3	4
1- Life Goals	25.03 ± 4.64	.79	–			
2- Visions About the Future	65.09 ± 13.18	.80	.30**	–		
3- Intolerance of Uncertainty	35.58 ± 9.61	.90	−.18**	−.31**	–	
4- Proactive Career Behaviors	30.06 ± 7.49	.91	.44**	.41**	−.32**	–

M Mean, *SD* Standard deviation

**p < .01

**Table 3** Bootstrapping test of the mediating effect of life goals on proactive career behavior

Pathways	β	Standard Error	95% CI
Direct effect			
Life Goals ➔ Visions About the Future	.46***	.06	.34 to .57
Life Goals ➔ Proactive Career Behaviors	.50***	.06	.36 to .61
Visions About the Future ➔ Proactive Career Behaviors	.25***	.05	.13 to .36
Indirect effect			
Life Goals ➔ Visions About the Future ➔ Proactive Career Behaviors	.11***	.03	.06 to .17
Total effect			
Life Goals ➔ Proactive Career Behaviors	.61***	.05	.51 to .69

CI Confidence interval. Standardized beta coefficients (β) were reported

***p < .001

Table 4 Regression analysis results demonstrating the moderating effect

	β	Standard Error	t	95% CI
Constant	29.91***	.28	104.21	29.35 to 30.48
Intolerance of Uncertainty	−.18**	.03	−6.16	−.244 to −.126
Moderating effect	−.02*	.01	−3.03	−.028 to −.006

CI Confidence interval

***p < .001, **p < .01, *p < .05
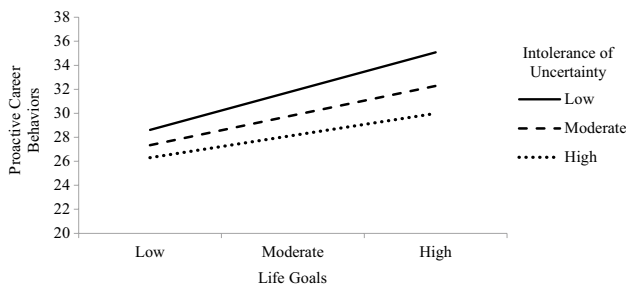
Fig. 3 Graphical representation of the moderating effect of ıntolerance of uncertainty

analysis was performed with 95% confidence interval and 10,000 resampling, and the results are presented in Table 4.

As seen in Table 4, intolerance of uncertainty was found to have a moderating effect between life goals and proactive career behaviors ($\beta = -.02$, p < .05). Slope analysis was performed in order to determine under which conditions the intolerance of uncertainty had a moderating effect on the relationship between life goals and proactive career behaviors. Slope analysis results are presented in Fig. 3.

As seen in Fig. 3, life goals had a significant effect on proactive career behaviors at all three levels where intolerance of uncertainty was low ($\beta = .80$, p < .001), moderate ($\beta = .61$, p < .001) and high ($\beta = .45$, p < .001). This effect was greatest when intolerance of uncertainty was low.

Discussion

In this study, the relationships between university students' life goals, visions about the future, intolerance of uncertainty, and proactive career behaviors were examined. The study revealed that life goals and visions about the future were positive predictors of proactive career behaviors, and intolerance of uncertainty was a negative predictor of proactive career behaviors. In addition, the study found that visions about the future played a mediating role in the relationship between life goals and proactive career behaviors, while intolerance of uncertainty played a moderating role. Each of the study results is discussed in detail below.

The examination of H_1 revealed life goals had a positive effect on proactive career behaviors. Parallel to our result, De Vos et al. (2009) also concluded in their study that individuals' goals are effective on proactive career behaviors. Life goals refer to situations that are desired to be reached in the future (Emmons, 2003). Proactive career behaviors are the future-oriented behaviors performed to achieve these goals (Parker & Bindl, 2017; Grant & Ashford, 2008). Therefore, the increase in life goals can be associated with the increase in proactive career behaviors. In addition, from a cultural point of view, the collectivist cultural structure maintains its effect in Turkey (Tagay et al., 2016). Accordingly, proactive behaviors in Turkish young people may create anxiety or stress and they may tend to behave appropriately for the group. However, the

fact that young people have goals can make a difference because the existence of goals is an effective power for individuals to control emotions such as anxiety and stress (Folkman & Lazarus, 1985). Individuals having life goals provides the motivation for them to take action towards achieving these goals (Hadley & MacLeod, 2010). In other words, the existence of goals is a precursor to proactive career behaviors. Lack of life goals, on the other hand, is a source of inaction. In addition, individuals having goals indicates the existence of an imagined future, and the existence of an imagined future is one of the important determinants of proactive career behaviors (Strauss et al., 2012). Therefore, young individuals with life goals can boldly display proactive behaviors towards achieving these goals.

According to H₂, visions about the future play a mediating role in the relationship between life goals and proactive career behaviors. The result we reached in our study confirmed our hypothesis. This result we reached shows that as university students' life goals increase, their visions about the future will increase and they will exhibit more proactive career behaviors. Visions about the future refer to a positive perspective towards the future and contain hope, optimism, and a low level of pessimism in their structure (Ginevra et al., 2017). In Turkey, young people's visiosn about the future may be low in general because youth unemployment rate is high in Turkey. Increasing unemployment rates and increasingly complex job markets can reduce young people's optimism and hope and increase their pessimism (Kalafat, 2012). However, individuals having life goals can reverse this situation. Hope is a power that is affected by the fact that the individuals have goals and enables them to take action towards their goals (Snyder, 2000; Snyder, 2002) because goals are defined as a component of hope (Niles et al., 2011). Therefore, individuals having life goals can be considered as a situation that activates hope. As a matter of fact, Korkmaz and Cenkseven-Önder (2019) similarly revealed in their study that life goals are a predictor of hope. Optimism is the tendency of individuals to believe that good things will happen rather than bad things (Scheier & Carver, 1985). The optimism of individuals is affected by their ability to cope with difficult life events (Nes & Segerstrom, 2006; Paganini et al., 2021). Individuals' coping skills are closely associated with their life goals since the existence of life goals builds up individuals' power to use healthy coping strategies in the face of difficult experiences (Folkman & Lazarus, 1985; Johnson & Nussbaum, 2012). Thus, the existence of healthy coping strategies developed with life goals can help individuals to be optimistic rather than pessimistic about the future. Individuals having life goals enables them to focus on the future (Emmons, 2003). Individuals who focus on the future take action to achieve their goals (Hadley & MacLeod, 2010). Even if they encounter difficulties in this process, they fight using the power provided by the desire to have and achieve goals (Folkman & Lazarus, 1985). With the struggle and successful results, the individuals' optimism and hopes for the future increase, and their pessimism decreases (Nes & Segerstrom, 2006). Being optimistic and hopeful for the future becomes a source for exhibiting proactive career behaviors such as taking initiative, developing relationships with other people, and receiving trainings for gaining skills (Carver et al., 2010; Ginevra et al., 2017; Hirschi, 2014). Proactive behavior requires energy and one of the most important fuels to provide this energy is hope because hope is a structure that is effective in the activation of individuals, i.e. a structure that impels individuals (Hirschi, 2014). Hopeful individuals generate ways to achieve their goals and motivate themselves to reach these goals through thinking (Snyder, 2002). In addition, hope provides motivation to pursue goals and retry when necessary in the face of failure (Hirschi, 2014). So, this motivation provided by hope becomes a source for individuals to exhibit proactive behaviors (Parker et al., 2010). As a matter of fact, studies also concluded that hope is a predictor of proactive career behaviors (Hirschi, 2014). Furthermore, optimism provides motivation to take action for the future (Niles et al., 2011; Sun & Shek, 2012). Optimistic individuals tend to exert more effort and be persistent in the face of challenges than pessimists, and this becomes the source for them to exhibit proactive behaviors (Carver et al., 2010; Ginevra et al., 2017). Lopes and Cunha's (2008) study also concluded that optimism is a positive predictor of proactive behaviors and pessimism is a negative predictor of proactive behaviors, which is in line with the result we reached in our study. These situations, which are expressed in the fact that visions about the future have a mediating role in the relationship between life goals and proactive career behaviors, may be effective.

The examination of our final hypothesis, H₃ revealed that intolerance of uncertainty plays a moderating role in the relationship between life goals and proactive career behaviors. It was concluded that as the intolerance to uncertainty increased, the effect of life goals on proactive career behaviors decreased. The present career structure contains a lot of uncertainty about the future (Sonnentag, 2017). The level of intolerance of uncertainty is effective on individuals' future-oriented actions (Carleton, 2012). This made individuals' intolerance of uncertainty an important factor in their careers (Arbona et al., 2021). In Turkish culture, the tendency to avoid uncertainty is high (Sargut, 2010). Societies with a high tendency to avoid uncertainty try to achieve success by imitating successful people or organizations in situations with high uncertainty (Sargut, 2009). This is the opposite of proactive behaviors because coping with uncertainty is considered an effective mechanism for individuals to exhibit proactive career behaviors (Claes & Ruiz-Quintanilla, 1998).

While individuals who can tolerate uncertainty tend to act actively instead of remaining passive in situations of uncertainty, individuals with high intolerance of uncertainty have difficulty in taking action (Carleton, 2012). Thus, as individuals' intolerance of uncertainty decreases, they will be able to focus on the future and exhibit proactive career behaviors. As a matter of fact, Atalay-Mazlum's (2019) conclusion in his study that there is a relationship between proactive behaviors and intolerance to uncertainty is in line with our statements. In addition, it can be stated that intolerance of uncertainty is also related to life goals because individuals' beliefs about the future being predictable are very important in achieving goals (Snyder et al., 2002). In other words, people who are sure of the future form goals. However, it is known that individuals with high intolerance of uncertainty can find even the smallest uncertainties distressing and challenging, and the idea that the world is irregular and unpredictable can easily prevail in their minds (Buhr & Dugas, 2002). This can make individuals' intolerance of uncertainty an effective structure on their life goals. The fact that intolerance of uncertainty is effective in motivation for proactive behaviors (Carleton, 2012) and that it also affects life goals based on the perception of the predictable future (Buhr & Dugas, 2002) are important sources of serving as a moderator in this relationship.

Limitations and Recommendations

This study was conducted with Turkish students studying at a university in the Eastern Mediterranean Region of Turkey. Similar studies should be conducted with individuals from different regions, cultures, and countries, and the results should be compared and discussed. Not getting information from participants on whether or not they were psychologically affected by the COVID-19 pandemic is a limitation of this study since COVID-19 had an impact on individuals' hope, optimism (Genç & Arslan, 2021) and pessimism levels (Arslan et al., 2021) because, the effects of the COVID-19 pandemic may have a distorting impact on the relationship between visions about the future and proactive career behaviors. In addition, not getting information from the participants on whether or not they were receiving support that would contribute to their psychological empowerment during the research process is also a limitation because activities for psychological empowerment have a positive effect on proactive career behaviors (Huang & Hsieh, 2015; Uncuoğlu-Yolcu & Çakmak, 2017) and this can manipulate the relationships between the variables in the study.

Some recommendations were presented to researchers and practitioners regarding the results of the study. In our study, we concluded that life goals, visions about the future (hope, optimism, low pessimism), and intolerance of uncertainty are predictors of proactive career behaviors. In this context, the topics of forming life goals, increasing hope and optimism, reducing pessimism and coping with uncertainty should be included in the sessions towards group practices to develop students' proactive career behaviors. Informative seminars and conferences should be organized under the coordination of universities' career centers and psychological counseling units in order for students to create life goals, strengthen their tolerance of uncertainty, and increase their hope and optimism, reduce their pessimism for the future. Thus, individuals can be helped to show proactive career behaviors. Information lines consisting of career counselors can be established at universities. By ensuring that individuals have instant access to information about their careers, uncertain and unknown situations can be clarified for them and they can be helped to engage in proactive career behaviors. In addition to intolerance of uncertainty, individuals' resilience levels may also have a moderating effect on the relationship between life goals and proactive career behaviors since resilience is an effective variable on individuals' proactive behaviors (Caniëls & Baaten, 2019). Studies conducted by researchers to reveal this relationship is very important because while intolerance of uncertainty is negatively associated with proactive career behaviors, resilience can show a positive relationship. Thus, in addition to life goals and visions about the future, which are positive psychological variables, resilience can be included in the practice and intervention programs to be made for the development of proactive career behaviors. This study was conducted with university students. However, proactive career behaviors also have significant effects on the career success of individuals who are already employed (Cha et al., 2017). Thus, similar studies should be conducted with working individuals and the results should be evaluated.

Declarations

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