



## The Relationship Between Career Engagement and Perceived Career Barriers of University Students: The Mediating Role of Career Adaptability and Career Planning Self-Efficacy<sup>1</sup>

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### Abstract

The aim of this study is to examine the multiple mediating role of career planning self-efficacy and career adaptability in the relationship between career barriers perceived by university students and their career engagement. The relationships between career engagement, career barriers, career planning self-efficacy, and career adaptability, which are the variables of the study, were tested and evaluated using the parallel multiple mediation method. The participants in the study were 357 university students. 243 of the participants were female (68%) and 114 were male (32%). The mean age of the participants was 20.75 years. Data from the study were collected using the Career Engagement Scale, the Career Barriers Scale, and the Career Adaptability Scale-Short Form. Data on career planning self-efficacy were obtained using items from the 'Ways of creating a career plan' sub-dimension of the Career Decision Making Self-Efficacy Scale. Descriptive statistics, Pearson correlation coefficient and mediation analysis were used to analyse the data. The results obtained from the study reveal that the multiple mediating role of career adaptability and career planning self-efficacy in the relationship between perceived career barriers and career engagement is statistically significant. As a result of the specific indirect effect comparison conducted to determine which of the two mediating variables has a stronger mediating effect, it was found that there was no significant difference between career adaptability and career planning self-efficacy

**Keywords:** Career engagement; career barriers; career adaptability; career planning self-efficacy; university students

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## Introduction

One of the important stages in the career development process of young people is the transition from school to work, and the most important development task expected from young people in this period is to prepare for the most suitable job and profession for themselves (Savickas, 2020). In this context, university students nearing graduation dedicate the majority of their time to job hunting and exploring career opportunities. Each student faces numerous challenges associated with their future career path (Kim et al., 2014). The concept of career engagement is also considered to be an important aspect of the transition from school to work, as it involves proactive career behaviours (Hirschi et al., 2014).

Hirschi et al. (2014) defined career engagement as the degree to which an individual proactively engages in various career behaviours for a positive career development. In addition, career engagement includes participation in one's own career decisions, planning and developing employability skills, seeing career opportunities that can accelerate the transition from school to work, and networking (Hirschi, 2010). The concept of career engagement is a phenomenon that is taken into consideration by both career and job and vocational counsellors, as they try to help individuals to find meaningful jobs where they can fully reflect their skills (Neault & Pickerell, 2011).

Baluku et al. (2020) suggest that career engagement entails greater participation in activities like planning, decision-making, exploring opportunities, networking, and skill development. They claim that university students deeply involved in these activities are more likely to benefit from the shift from school to work and experience career satisfaction. Neault and Pickerell (2011) posit in the positive psychology literature that career engagement enhances the positive impacts of career development and exploration. Hirschi and Freund (2014) found that perceived social support and positive emotions are predictors of career engagement. In addition to positive psychological factors (Bharti & Rangnekar, 2019; Çarkıt, 2022; McIlveen & Perera, 2016; Upadaya & Salmela-Aro, 2015), career adaptability (Nilforooshan & Salimi, 2016; Sou et al., 2022; Taber & Blankemeyer, 2015) is also included in the literature as a variable whose relationship with career engagement is examined.

## Career Adaptability

The concept of career adaptability, a key component of the career structuring theory developed by Savickas (2005), is favored over the term "career maturity." It is defined as the psychosocial resources that individuals utilize to handle current or anticipated professional development tasks and challenges encountered in their career development (Savickas, 1997; 2005). Individuals with high career adaptability have characteristics such as self-knowledge and awareness of their characteristics, knowing and exploring the environment, making informed decisions and having a positive attitude towards making plans (Savickas, 1997). It can be said that these characteristics are compatible with proactive career behaviours such as career engagement and individuals who exhibit proactive career behaviours are more likely to be successful in today's rapidly changing business environment and in various career transitions.

Study findings in the literature reveal that high levels of career adaptability are associated with positive career development characteristics such as high levels of career satisfaction (Chan & Mai, 2015; Guan et al., 2015) and lower levels of turnover intention (Karatepe & Olugbade, 2017; Zhu et al., 2019). In addition, there are studies showing that

career adaptability is effective on proactive career behaviours such as career planning, proactive skill development, and career networking (Taber & Blankemeyer, 2015). Study findings on the relationship between career engagement and career adaptability reveal that career adaptability has a significant positive relationship with career engagement (Nilforooshan, & Salimi, 2016; Sou et al., 2022; Spurk et al., 2020; Taber, & Blankemeyer, 2015).

### **Career Barriers**

The degree to which individuals perceive unwanted obstacles that prevent them from achieving their career goals and choices is defined as perceived career barriers (Mejia-Smith & Gushue, 2017). Swanson and Woitke (1997) defined barriers as "events or conditions within or around oneself that make career development difficult". It is reported that the literature on perceived career barriers is largely based on gender differences and significantly on women's career barriers (Swanson et al., 1996; Swanson & Woitke, 1997; cited in Lent et al., 2000). The findings of many studies in the literature (Ackah & Heaton, 2003; Butler & Skattebo, 2004; Jackson, 2001; Luzzo & McWhirter, 2001; McWhirter, 1997; Swanson & Woitke, 1997) reveal that women's perception of career barriers is higher. Lack of perceived social support and career barriers faced by the individual negatively affect the career development process (Lent et al., 2000). However, the impact of perceived career barriers may change over time depending on the career development tasks that the individual has to overcome (Fabian et al., 2009).

Career development tasks related to proactive career behaviours (planning, participation in decisions, networking, etc.) within the scope of career engagement can also be negatively affected by perceived career barriers (Cardoso & Ferreira Marques, 2001; Çakmak - Otluoğlu & Akdoğanlı, 2019; Güldü & Kart, 2017). Furthermore, research conducted by Hirschi and Freund (2014) indicates that perceived career barriers may not significantly impact proactive career behaviors. Conversely, a separate longitudinal study involving university students (Hirschi et al., 2013) suggests that contextual factors, when combined with motivational states, can positively drive proactive career behaviors.

### **Career Planning Self-Efficacy**

Another variable whose relationship with career engagement has been examined is self-efficacy beliefs (Kim et al., 2014; Royle et al., 2016). Self-efficacy is defined as a person's belief in their ability to perform a particular task or behavior. Since self-efficacy perception is focused on specific behaviors rather than general ones, the concept of self-efficacy must have a behavioral reference to be meaningful (Bandura, 1977). Perception of self-efficacy in career planning is a proactive behavior aspect linked to self-efficacy that deserves consideration in career development. Individuals with a strong perception of self-efficacy in career planning are more likely to take proactive steps towards achieving their career goals.

An individual's strong self-efficacy perception increases his/her motivation to fulfil a task or perform a behavior (Bandura, 1997). Studies in the related literature also reveal that individuals with high self-efficacy perceptions have higher proactive career behaviors (Creed et al., 2007; Rogers et al., 2088). Regarding employees' engagement towards work, the findings of the study conducted by Lartey (2021) show that career planning skills contribute

positively to employee engagement. Hirschi et al. (2014) conducted a study to develop a scale and found a significant positive correlation between career planning and career engagement.

## Purpose and Significance of the Study

Today, rapid changes and transformations in many areas of life also manifest themselves in business life and individuals have to turn to proactive career behaviors for a successful career development process. The concept of career engagement, which reflects proactive career behaviors, is a factor that affects the job and career satisfaction of university students after graduation and should be taken into consideration in the career development process of young people in the transition from school to work. Therefore, this study aims to examine the relationship between career engagement and perceived career barriers, career planning self-efficacy and career adaptability. Considering the fact that there is no correlational study in the relevant literature in which these four variables are addressed together, the findings obtained from this study are considered to be important. In this context, a model was proposed in which the parallel multiple mediating role of career planning self-efficacy and career adjustment between career engagement and perceived career barriers was examined (Figure 1). In line with this model, the following hypothesis was tested:

H<sub>1</sub>. There is a significant negative relationship between career barriers and career engagement

H<sub>2</sub>. There is a significant negative relationship between career barriers and career planning self-efficacy

H<sub>3</sub>. There is a significant negative relationship between Career Barriers and career adaptability

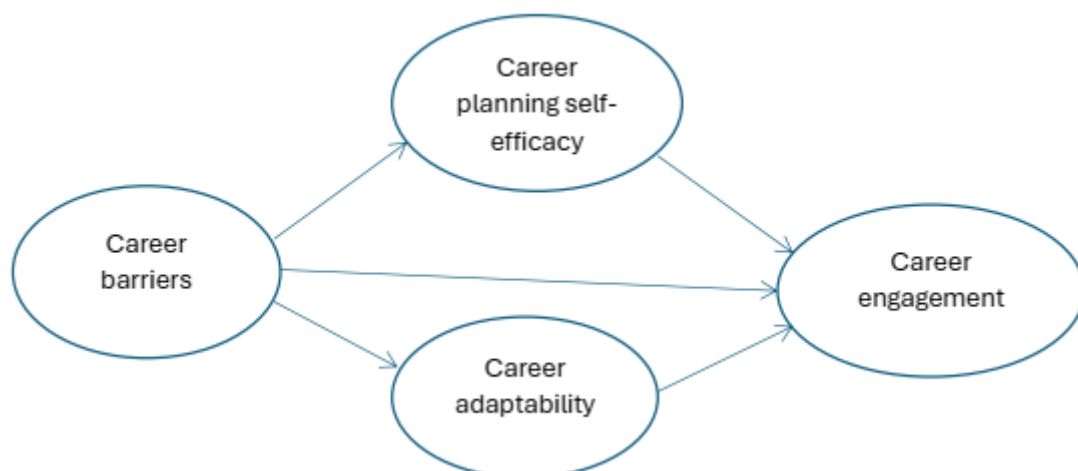
H<sub>4</sub>. There is a significant positive relationship between career planning self-efficacy and career engagement

H<sub>5</sub>. There is a significant positive relationship between career adaptability and career engagement

H<sub>6</sub>. Career adaptability and career planning self-efficacy have a mediating role in the relationship between career barriers and career engagement.

**Figure 1**

Proposed (Hypothesis) Model



## Method

### Research Design

This study was designed in a relational model in terms of addressing the variables related to university students' career engagement. Relational studies are studies that examine the relationship between two or more variables (Fraenkel et al., 2012).

### Participants

The participants of the study consisted of 357 students studying at a university in the Central Anatolia Region of Turkey. 243 of the participants were female (68%) and 114 were male (32%). The average age of the participants was 20.75 years. Considering the grade levels of the participants, 16% of them were in the first grade (58), 35% in the second grade (125), 32% in the third grade (115) and 17% in the fourth grade (59). In this study, convenience sampling method was preferred as the sampling method in determining the participants.

### Data Collection Tools

*Career Engagement* was measured using the 'Career Engagement Scale' developed by Hirschi et al. (2014) and adapted to Turkish culture by Korkmaz et al. (2020). The scale consists of one dimension and nine items. The items on the five-point Likert-type scale aim to assess the degree to which tasks related to the career development process have been addressed in the past six months. High scores obtained from the scale mean that the individual performs career management behaviors proactively. The Cronbach Alpha internal consistency coefficient obtained from the adaptation study of the scale to Turkish culture was calculated as .88 for the total scale. The Cronbach Alpha internal consistency coefficient of the scale calculated in this study was .89.

*Career Barriers* were measured with the 'Career Barriers Scale' developed by Ulaş and Kızıldağ (2018). The scale developed to measure the internal and external career barriers perceived by university students consists of 18 items and four sub-dimensions. Based on theoretical information, the scale factors have been categorized as follows: Attitudinal Barriers (lack of necessary career planning skills and perceived insufficient business skills), Interactional Barriers (belief that physical characteristics limit career options), Social Barriers (difficulty in making career plans due to family problems), and Educational Barriers (perception of inadequate preparation for business life from previous education). The answer form of the scale was formed in accordance with the five-point Likert scale with the options "Strongly disagree, rarely agree, occasionally agree, usually agree and strongly agree". A total score can be obtained from the scale and a high score indicates a high level of perceived obstacles, while a low score indicates a low level of perceived career obstacles. Cronbach's alpha coefficients calculated for scale reliability were between .79 and .96. The Cronbach Alpha internal consistency coefficient calculated within the scope of this study was .90.

*Career Adaptability*: The 'Career Adaptability Scale-Short Form' was utilized to assess career adaptability in the study. The Career Adaptability Scale, initially developed by Savickas & Porfeli in 2012, comprises four sub-dimensions and a total of 24 items. Maggiori et al. (2015) later modified it into a 12-item structure known as the Career Adaptability Scale-Short Form, making it more suitable for use in larger samples. The adaptation study of the scale to Turkish culture was conducted by Işık et al. The adaptation study of the Career Adaptability Scale-Short Forum into Turkish was conducted on independent sample groups consisting of three

different age groups (high school-university and adult samples). The internal consistency coefficients of the scale were found between .70 and .85 in the high school sample, between .76 and .90 in the university sample and between .80 and .91 in the adult sample. As a result of the analyses, it was found that the scale adapted to Turkish culture in different sample groups showed similar psychometric properties with the four-factor and twelve-item structure in the original form. A total score is obtained from the scale. High scores from the scale indicate a high level of career adaptability (Işık et al., 2018). The Cronbach's alpha internal consistency coefficient of the scale calculated in this study was .91.

*Career Planning Self-efficacy* was measured using the 'Ways of Creating a Career Plan' subscale, which is one of the subscales of the 'Career Decision Making Self-efficacy Scale' developed by Ulaş and Yıldırım (2016) and consists of 14 items. Sample items of the scale are as follows: "Planning the steps to be taken in reaching career goals, Evaluating what you can do in the future related to your profession". The response format of the scale is a five-point Likert-type scale ranging from "I am not at all competent" to "I am quite competent". The high scores obtained from the scale indicate that the belief in self-efficacy in career planning is high. While the internal consistency coefficient of the scale was calculated as .93, the Cronbach's Alpha internal consistency coefficient was found to be .94 in this study.

## Data Collection Process

In the data collection phase, the forms with the data collection tools were given to the students who volunteered to participate by the researcher in the faculties where the students were studying and the participants were asked to complete the scale forms within the required time.

## Data Analysis

The data in this study was analyzed using the multiple regression analysis technique. To determine the mediation relationship, the analysis was conducted using Hayes' (2017) process plug-in. Model 4 is used to examine the multiple parallel mediation relationship. Hayes (2017) proposed the parallel multiple mediator model, which demonstrates how the antecedent variable X can directly and indirectly influence the outcome variable Y through two or more mediating variables. It is crucial to emphasize that in this model, no mediator should causally affect the other. In this study, career planning self-efficacy and career adaptability were used as mediating variables and 5000 bootstrap samples were utilized.

## Ethical Issues

For this study, ethical approval was obtained from the Nigde Omer Halisdemir University Ethics Committee and the necessary permission to collect data was obtained. During the data collection process, the participants were informed of the purpose of the study and then the measurement tool was administered. It was explained that the names of the participants would not be recorded, that the confidentiality of the data collected would be carefully protected and would only be used for the purposes of this research.



## Findings

**Table 1**

Descriptive statistics and correlations

	Career engagement	Career adaptability	Career planning self-efficacy	Career barriers
<b>Career engagement</b>	-			
<b>Career adaptability</b>	.61**	-		
<b>Career planning self-efficacy</b>	.73**	.66**	-	
<b>Career barriers</b>	-.14**	-.28**	-.17**	-
<b>Mean</b>	29.75	46.34	46.64	33.05
<b>SD</b>	7.05	8.08	10.54	11.55

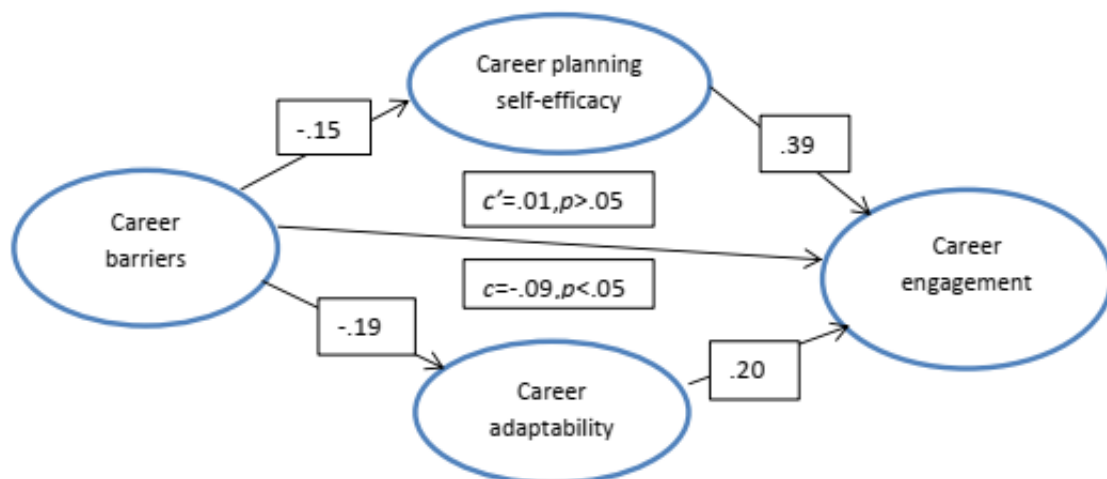
\*\*Correlation is significant at the 0.01 level (2-tailed)

When the data in Table 1 are analyzed, there is a significant negative relationship between perceived career barriers and career engagement ( $r = -.14$ ,  $p < .01$ ), career adaptability ( $r = -.28$ ,  $p < .01$ ) and career planning self-efficacy ( $r = -.17$ ,  $p < .01$ ). This finding indicates that the first three hypotheses ( $H_1$ ,  $H_2$ ,  $H_3$ ) are confirmed. In addition, there is a significant positive relationship between career engagement and career adaptability ( $r = .61$ ,  $p < .01$ ) and career planning self-efficacy ( $r = .73$ ,  $p < .01$ ). With this finding, hypotheses  $H_4$  and  $H_5$  are confirmed.

The hypothesis model result regarding the parallel multiple mediating role of career adaptability and career planning self-efficacy in the relationship between career engagement and career barriers is given in Figure 2

**Figure 2**

Results of the Hypothesis Model



In Table 2, the predictors of career engagement are examined and the data obtained are evaluated together with the results of the hypothesis model.

**Table 2**

Regression Analysis Results

	Career planning self-efficacy (M1)			Career adaptability (M2)			Career engagement		
	<i>B</i>	<i>SH</i>	$\beta$	<i>B</i>	<i>SH</i>	$\beta$	<i>B</i>	<i>SH</i>	$\beta$
<b>Career barriers</b>	-.15	.05	-.17*	-.19	.04	-.28*	.01	.02	.02
<b>Career planning self-efficacy</b>	-	-	-	-	-	-	.39	.03	.58*
<b>Career adaptability</b>	-	-	-	-	-	-	.20	.04	.23*
<b><i>R</i><sup>2</sup></b>		.03			.08			.57	

\* $p < .05$ 

In the first step, career barriers were found to be a significant predictor of career engagement ( $b = -.09$ ). Then, career barriers were found to be a significant predictor of career planning self efficacy ( $b = -.15$ ) and career adaptability ( $b = -.19$ ). Career planning self efficacy ( $b = .39$ ) and career adaptability ( $b = .20$ ) were found to be significant predictors of career engagement. When mediating variables were included in the model, it was observed that the direct effect of career barriers on career engagement ( $b = .01$ ) was not significant.

Table 3 presents the findings regarding the indirect effects and specific indirect effects of career barriers on career engagement through career adaptability and career planning self-efficacy of university students.

**Table 3**

Conclusions on Indirect Effects and Specific Indirect Effects

<b>Indirect Effects</b>	<b><i>B</i> (% 95 CI)</b>	<b><i>SH</i></b>	<b><math>\beta</math></b>	<b>%95 CI</b>
<b>Total Indirect Effects</b>	-.10 (-.15 -.05)	.03	-.17*	-.24 -.09
<b>Career planning self-efficacy</b>	-.06 (-.10 -.02)	.02	-.10*	-.16 -.04
<b>Career adaptability</b>	-.04 (-.07 -.02)	.01	-.07*	-.10 -.03
	<b><i>B</i> (%95 CI)</b>	<b><i>SH</i></b>	<b><math>\beta</math></b>	<b>%95 CI</b>
<b>Specific Comparison (C1)</b>	-.02 (-.05 .01)	.02	-.03	-.09 .02

The indirect effect of career barriers on career engagement through career planning self efficacy ( $b = -.06$ , 95% confidence interval  $-.10$ – $-.02$ ) was found to be significant. Similarly, the indirect effect of career barriers on career engagement through career fit ( $b = -.04$ , 95%



confidence interval (-.07- -.02) was found to be significant. When the specific indirect effects (career planning self efficacy-career adaptability) were compared, it was concluded that there was no significant difference ( $b = -.02$ , 95% confidence interval -.06-.01). As a result, it was observed that career planning self efficacy and career adaptability assumed a multiple parallel mediating role in the relationship between career engagement and career barriers.

### Conclusion, Discussion and Implications

The aim of this study is to examine the multiple mediating role of career adaptability and career planning self-efficacy in the relationship between career engagement and career barriers. The findings of the study reveal that the multiple mediating role of career adaptability and career planning self-efficacy in the relationship between career barriers and career engagement is statistically significant. As a result of the specific indirect effect comparison of which of the two mediating variables has a stronger mediation effect, it was found that there was no significant difference.

One of the findings that emerged as a result of the analysis of the data obtained in the study is that career barriers are a significant negative predictor of career engagement. This finding suggests that a rise in perceived career barriers can result in a decline in motivation for proactive career behaviors associated with individuals' career engagement. Similar to the findings obtained from the research, Çakmak Otluoğlu and Akdoğanlı (2019) also found a significant negative relationship between perceived career barriers and career engagement of female employees. Lee and Kim (2017) found a significant negative correlation between perceived career obstacles and vocational engagement, which aligns with the findings of this study.

Another finding from the study reveals that career barriers have a negative impact on career engagement, however, this impact is not significant when taking into account career planning self-efficacy. According to this finding, it can be said that career engagement of young people decreases as perceived career barriers increase, but career engagement of young people with high career planning self-efficacy can remain strong despite perceived career barriers. This indicates that individuals with strong career planning self-efficacy can effectively overcome career barriers and maintain high levels of engagement in their careers. Hirschi et al. (2013) contend that contextual factors, such as perceived career barriers, when combined with motivational factors, positively influence proactive career behaviors within career engagement. The positive effect of career planning was also revealed in the study conducted by Lartey (2021) and it was found that career planning is a significant predictor of employee engagement. In this context, this finding of the study also reveals the importance of increasing university students' career planning self efficacy in dealing with perceived career barriers and encouraging them to make effective future plans. Moreover, by equipping students with the necessary skills and confidence to navigate potential obstacles in their career paths, universities can play a crucial role in fostering a more proactive and empowered student body. This, in turn, can lead to increased career satisfaction and success for individuals as they embark on their vocational journeys.

Similar to career planning self-efficacy, one of the findings of the research is that the direct effect of career barriers on career engagement is not significant when career adaptability comes into play. This suggests that individuals with high levels of career adaptability are better equipped to overcome career barriers and stay engaged in their careers. It highlights the

importance of developing career adaptability as a key factor in promoting career engagement and success. In many studies in the literature, it is seen that there is a significant positive relationship between career adaptability and career engagement (Çarkıt, 2022; Nilforooshan, & Salimi, 2016; Sou et al., 2022; Söner et al., 2024; Su et al., 2020). As a result of the study conducted by Van Gorp (2020) with individuals between the ages of 18-40, it was found that vocational engagement played a mediating role between perceived career barriers and career adaptability. The findings of this study also emphasize this relationship between career adaptability and career engagement, and similar to the results of the study conducted by Van Gorp (2020), the mediating role of career adaptability between perceived career barriers and career engagement.

The findings of the study reveal that perceived career barriers are a negative predictor of career engagement; however, when both career planning self-efficacy and career adaptability are included in the model as mediating variables, the direct effect of perceived career barriers on career engagement is not significant. This result suggests that having a strong sense of career planning self-efficacy and career adaptability can help mitigate the negative effects of perceived career barriers on young people's career engagement. Moreover, individuals who believe in their ability to navigate obstacles and adapt to changing circumstances are more likely to stay motivated and proactive in pursuing their career goals. By developing these important skills, young people can overcome challenges and setbacks with resilience and determination, ultimately leading to greater career success and satisfaction. In this context, studies that can develop the proactive career orientation of young people can be implemented for university students, both through university career centers and through courses such as career planning.

Within the scope of this study, the ability to examine the mediation effects of more than one mediating variable by utilizing the multiple mediation model in the relationship between variables and to make comparisons between these mediation effects is considered as a strength of the study. In addition, considering the limited studies on the mediating role of career planning self-efficacy and career adaptability in the relationship between career barriers and career engagement, it is thought that the contribution of the findings obtained from this study to the related literature is also noteworthy. In addition to its strengths, the study also has some limitations. One of these limitations is that the participants of the study were selected among university students in a city. For this reason, the problem of generalizing the research findings to similar age groups may arise. In order to determine whether similar mediation models will produce similar results, it may be suggested to conduct studies with a larger sample of students studying at different universities in different cities. Another limitation of the study is related to the research model. This study was designed as a cross-sectional study based on the quantitative method that reveals the relationships between variables. In order to better understand the interaction of the relevant variables in the career development process, mixed-method studies including longitudinal or qualitative data may be recommended.

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