The Mediating Role of Career Futures between Prospective Teachers’ Career Calling and Career Adaptability

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Abstract
This study aims to evaluate the mediating role of career futures in the relationship between prospective teachers' career adaptability and career calling. This aim was carried out according to the quantitative research patterns relational model. The sample of this study consists of 225 prospective teachers between 18 and 39 years of age ($\bar{X} = 21.49$, $SD = 1.81$). Data were collected using the Career Adapt-Abilities Scale, Career Futures Inventory, and Career Calling Scale. The two-stage Structural Equation Modeling technique tested the hypothetically determined model. Accordingly, the measurement model was first examined. Afterwards, the structural model was tested. In this model test, the Maximum Likelihood estimation technique was used. Bootstrapping analysis showed that this indirect effect was significant in 1,000 bootstrapping samples. As a result of the model test, it was determined that the career futures partially mediate the relationship between career adaptability and career calling. In line with the findings of this study, recommendations for future researchers and practitioners are presented.

Introduction

Career adaptability is defined as qualifications that make it easier for individuals to adapt to career changes and career transitions in their career development and help them overcome the career barriers faced in this process (Savickas, 2013). Career adaptability is a psycho-social structure at the center of Savickas's Career Construction Theory (Savickas, 2005). Savickas considered career adaptability a four-dimensional structure in career construction theory (Savickas & Porfeli, 2012). Career concern means that individuals make career plans in their career development processes. Career control means that individuals take responsibility in their career development processes. Career curiosity means that individuals discover career-related self-structures. Career confidence means individuals feel competent in overcoming career barriers (Savickas, 2005).

Career calling is an essential construct of the career adaptability of individuals to a positive point (Dik & Duffy, 2009). Career calling is a psychological structure that helps individuals make their career development meaningful and involves efforts to help others and lead individuals effectively in their career development (Duffy & Sedlacek, 2007). Career calling, an essential factor that increases individuals' career adaptability in the career development process, starts with undergraduate education and continues until employment and retirement (Dik & Duffy, 2009). At this point, career calling has different meanings for individuals in various career development periods. For example, career calling for adults working as teachers is defined as approaching their work with calling (having a solid feeling in terms of aim and goal and maintaining the business) and being beneficial to others and society with their work (Steger et al., 2010). Career calling for prospective teachers in emerging adulthood is the willingness of individuals to continue their career development and their expectation that they will achieve positive results regarding their future career development (Dik et al., 2008; Dobrow & Tosti-Kharas, 2011). Theoretical and empirical studies have demonstrated career adaptability and career calling relationships (Hall & Chandler, 2005; Hirschi & Herrmann, 2013; Eryılmaz ve Kara, 2018a, Kara ve Eryılmaz, 2021). These studies concluded that individuals’ calling for their careers positively contributes to their career adaptability. Based on these theoretical and empirical studies and logical implications, it is accepted in this study that career calling is an important variable that predicts individuals' career adaptability.

Another psychological factor affecting individuals' career adaptability is the career's future (Kalafat, 2012). Career future is how individuals see their jobs and determine their attitudes toward career planning. Rottinghaus et al. (2005) classify the career future as three-dimensional. These three dimensions are career adaptability, career optimism, and job markets. Career adaptability is the ability of individuals to overcome career transitions and career problems related to their professions (Eryılmaz ve Kara, 2018b, Super & Knasel, 1981). Career optimism is when individuals expect positive results in their future career development.
Information on labor markets expresses individuals’ perceptions of labor markets and employment conditions (Kalafat, 2012). The relationships between career adaptability and career future are generally looked at with career optimism, a sub-dimension of career future. For example, in the studies of Rottinghaus et al. (2005), increasing individuals’ optimism toward their careers positively affected their use of career adaptability. Similarly, Duffy (2010) emphasizes that individuals should have an optimistic perspective toward their careers to use their career adaptability. Based on these findings, it was assumed in this study that a career future is an essential variable in predicting career adaptability. When looking at the studies examining the relationship between career future and career calling, Domene (2012) found that career calling affects professional outcome expectations. Duffy et al. (2011) emphasized in their theoretical explanation that career calling contributes to individuals’ seeing their future career as more important and being more aware of their professional interests. In line with the above-mentioned theoretical explanation and empirical research, it is accepted that career calling predicts a career future in this study.

Each profession has its specific aspect. Teachers affect students’ cognitive, affective, and behavioral development, academic achievement, and social relationships at school (Tok, 1997; Spilt et al., 2011). Teachers are also architects of the future. Teachers are essential in training a qualified workforce (Şahin, 2011). For teachers to reflect these characteristics in the learning process, their professions must be compatible with their self-structures. At this point, it is essential to increase the career adaptability of prospective teachers. There are studies in Turkey on college students about career adaptability (Kanten, 2012), such as examining the relationship between career adaptability and well-being (Buyukgoze-Kavas et al., 2015; Eryılmaz & Kara, 2019) and increasing career adaptability levels of candidate psychological counselors (Kara, 2016). Also, there are studies including teachers and prospective teachers on career adaptability and personality (Eryılmaz & Kara, 2017a), career adaptability and career optimism, and self-efficacy (McLennan et al., 2016), and career adaptability scales (Eryılmaz & Kara, 2016, Eryılmaz & Kara, 2017b). In addition to these studies, it is essential to introduce studies that will provide the basis for increasing the career adaptability of teachers and prospective teachers. Also, although there are theoretical and empirical explanations regarding career futures, career calling, and career adaptability separately, studies addressing these three variables in a structural model have not been found in the literature. As a result of the empirical studies in the literature (Rottinghaus et al., 2005; Duffy & Seldlacek, 2007; Dufy, 2010; Hirschi & Herrmann, 2013) and theoretical explanations (Hall & Chandler, 2005; Savickas, 2013), the aim of this study, based on logical implications, is to propose and test a model of structural equality that addresses prospective teachers’ career adaptability, career calling, and career futures.

Method

Research Model

This study aims to evaluate the mediating role of career futures in the relationship between prospective teachers’ career adaptability and career calling. This aim was carried out according to the relational model of quantitative research patterns (Fraenkel & Wallen, 1993). The model created for the test is given in Figure 1.

H1: Career calling predicts career adaptability.
H2: Career calling predicts career futures.
H3: Career futures predicts career adaptability.
H4: Career futures mediates the relationships between career calling and career adaptability
Participants and Procedure

The data obtained within the scope of the research were acquired only from volunteer students in the classroom, using the paper-pencil form. In this regard, informed consent was provided during the data collection phase, and participants were asked to tick the box prepared for volunteers in the scale sets. In addition, it was clearly stated that they have the right to withdraw even while filling the research data. In this way, data were collected from 239 prospective teachers. Data that served over half of the scales incompletely (14) were obtained, and analyses were conducted with 225 prospective teachers. The participants consisted of 225 prospective teachers. The average age of participants was 21.5±1.81 (ranging from 18 to 39). Of those, 57.3 % were final-year students, 14.2 % were 3rd, 27.1% were second, and 1.3 % were first.

Measures

Career Adapt-Abilities Scale (CAAS)

CAAS, Savickas, and Porfeli (2012) is a self-reporting measure of career adaptability. The Turkish adaptation of CAAS was performed by Kanten (2012). The scale includes 19 items on four relational dimensions: concerns, control, curiosity, and confidence (Kanten, 2012). Participants rate the degree to which such thoughts and behaviors defined career abilities. In the original form, the internal consistencies of the subscales (Cronbach’s alphas) ranged from 74 to 85. The inner surface of the entire CAAS was .94 (Savickas & Porfeli, 2012). The internal consistency of CAAS was .92 in our sample.

Career Futures Inventory (CFI)

CFI, Rottinghaus, et al. (2005) is a self-reporting measure of positive career planning attitudes. The Turkish adaptation of CFI was performed by Kalafat (2012). The scale includes 25 items loading on three relational dimensions. The three subscales are named: “career adaptability,” “career optimism,” and “knowledge.” Participants rate the degree to which such thoughts and behaviors defined career abilities. In the original form, the internal consistencies of the subscales (Cronbach’s alphas) ranged from .73 to .87. The internal surface of the entire CFI was .88 (Rottinghaus et al., 2012). The internal consistency of CFI was .93 in our sample.

Career Calling Scale (CCS)

CCS, Praskova, et al. (2015) is a self-reporting measure of salient career goals. The Turkish adaptation of the scale was performed by (Seymenler et al., 2015). The scale includes 15 items loading on three relational dimensions. The three subscales are named: “other-oriented meaning,” “personal meaning,” and “active engagement.” Participants rate the degree to which such thoughts and behaviors defined career abilities. In the original form, the internal consistency of the CCS (Cronbach’s alphas) was .88 item-total correlation ranged from .73 to .78. The internal consistency of CCS was .83 in our sample.

Data Analysis

The two-stage Structural Equation Modeling technique tested the hypothetically determined model. Accordingly, the measurement model was first examined. Afterwards, the structural model was tested. This model test used the Maximum Likelihood estimation technique (Kline, 2015). Bootstrapping analysis showed that this indirect effect was significant in 1,000 bootstrapping samples (Hayes, 2017).

Results

Descriptive Findings

In the analysis findings made within the scope of the assumption of normality in the present study, the skewness values of the observed variables vary between .163 and 1.84. In contrast, the kurtosis values range between .038 and 1.790. According to these findings, the normal distribution assumption was met in the present study.
Table 1. Descriptive findings and correlations among observed variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>(\bar{X})</th>
<th>Sd</th>
<th>AC</th>
<th>SO</th>
<th>OO</th>
<th>PK</th>
<th>CO</th>
<th>CA</th>
<th>CN</th>
<th>CT</th>
<th>CR</th>
</tr>
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<tr>
<td>AC</td>
<td>20.25</td>
<td>4.22</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>SO</td>
<td>21.59</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OO</td>
<td>24.45</td>
<td>4.43</td>
<td>.400**</td>
<td></td>
<td>.548**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>PK</td>
<td>8.97</td>
<td>2.37</td>
<td>.194**</td>
<td>.010</td>
<td></td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CO</td>
<td>39.82</td>
<td>6.97</td>
<td>.391**</td>
<td>.412**</td>
<td>.307**</td>
<td>.332**</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td>40.16</td>
<td>6.52</td>
<td>.352**</td>
<td>.196**</td>
<td>.272**</td>
<td>.425**</td>
<td>.672**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>11.78</td>
<td>2.12</td>
<td>.485**</td>
<td>.476**</td>
<td>.304**</td>
<td>.231**</td>
<td>.553**</td>
<td>.439**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT</td>
<td>21.40</td>
<td>2.73</td>
<td>.303**</td>
<td>.298**</td>
<td>.229**</td>
<td>.213**</td>
<td>.353**</td>
<td>.368**</td>
<td>.564**</td>
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<td></td>
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<tr>
<td>CR</td>
<td>19.13</td>
<td>3.25</td>
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<td>.467**</td>
<td>.290**</td>
<td>.359**</td>
<td>.462**</td>
<td>.401**</td>
<td>.670**</td>
<td>.574**</td>
<td></td>
</tr>
<tr>
<td>CF</td>
<td>24.91</td>
<td>3.22</td>
<td>.397**</td>
<td>.321**</td>
<td>.349**</td>
<td>.211**</td>
<td>.438**</td>
<td>.440**</td>
<td>.549**</td>
<td>.611**</td>
<td>.554**</td>
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</tbody>
</table>


The Mediating Effect of Career Futures

Testing the Measurement Model

In the measurement model, three latent variables are "career adaptability," "career calling," and "career futures." In addition, this model included ten observed variables: "concern," "control," "curiosity," "confidence," "active engagement," "personal meaning," "others-oriented meaning," "career adaptabilities," "career optimism," and "knowledge." In the analysis findings of the measurement model, the goodness of fit values was acceptable \(\chi^2/df\) (110.38/32) = 3.45, p=.00; GF= .91; CFI = .92; TLI = .89; RMSEA = .10 (90% confidence interval for RMSEA = .084–.12). In addition, all standardized factor loads reflecting the relationship of all latent variables with observed variables were high and statistically significant ranged from .45 to .84, p<.001.

Table 2. Results for the measurement model

<table>
<thead>
<tr>
<th>Measure and variable</th>
<th>Unstandardized factor loading</th>
<th>SE</th>
<th>t</th>
<th>Standardized factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Calling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OO</td>
<td>1.00</td>
<td>0.121</td>
<td>8.398*</td>
<td>0.819</td>
</tr>
<tr>
<td>SO</td>
<td>1.018</td>
<td>0.144</td>
<td>8.180*</td>
<td>0.751</td>
</tr>
<tr>
<td>AC</td>
<td>1.178</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career Adaptability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>1.00</td>
<td>0.101</td>
<td>10.986*</td>
<td>0.704</td>
</tr>
<tr>
<td>CT</td>
<td>1.107</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>1.520</td>
<td>0.117</td>
<td>12.975*</td>
<td>0.810</td>
</tr>
<tr>
<td>CF</td>
<td>1.328</td>
<td>0.119</td>
<td>11.205*</td>
<td>0.716</td>
</tr>
<tr>
<td>Career Futures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK</td>
<td>1.00</td>
<td>0.119</td>
<td>11.205*</td>
<td>0.716</td>
</tr>
<tr>
<td>CO</td>
<td>5.480</td>
<td>0.864</td>
<td>6.346*</td>
<td>0.843</td>
</tr>
<tr>
<td>CA</td>
<td>4.849</td>
<td>0.768</td>
<td>6.311*</td>
<td>0.797</td>
</tr>
</tbody>
</table>


Table 3. Correlations among the latent variables for the measurement model

<table>
<thead>
<tr>
<th>Latent variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Career Calling</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Career Futures</td>
<td>.52*</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3. Career Adaptability</td>
<td>.68*</td>
<td>.70*</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes. *p<.01

Testing the Structural Model

The partial-mediated model given in Figure 1 was tested. Goodness fit values were accepted: \(\chi^2/df\) (110.38/32) = 3.45, p=.00; GF= .91; CFI = .92; TLI=.89; RMSEA = .10 (90% confidence interval for RMSEA = .084–.12).
In the model where the full mediated relations were also tested (the path from career calling to career adaptability was excluded from the model), goodness fit values were also found to be close accepted limit: \( \chi^2/df (140.01/33) = 4.24, p<.00; \) GF = .89; CFI = .89; TLI = .85; RMSEA = .12 (90% confidence interval for RMSEA = .10 – .14). The Chi-square difference test (29.62, 1: p<.01) indicated that the exclusion of the path caused a significant deterioration in the model. Depending on this result, the path remains in the model as in the first case. The ultimate model obtained from the analysis results is given in Figure 2.

![Figure 2: Standardized parameter estimates of the final structural model](image)

**Figure 2.** Standardized parameter estimates of the final structural model

**Notes.** *p<.05. Standardized parameter estimates of the final structural model, the parameter value given in parentheses was calculated when the effect of the mediator variables was fixed at zero. AC: Active Engagement, SO: Personal Meaning, OO: Others-Oriented Meaning, PK: Knowledge, CO: Career Optimism, CA: Career Adaptability, CN: Concern, CT: Control, CR: Curiosity, CF: Confidence.

Standardized parameter estimates of the model showed that the path coefficient from career calling to career adaptability was \( \beta = .44, p<.05 \); it was \( \beta = .68, p<.05 \) when effects of mediator variables on the career adaptability was fixed at zero (see measurement model results in Table 2). Including mediators in the model reduced this path coefficient but was still significant. Therefore, these results showed that career futures partially mediated the relationship between career calling and career adaptability.

**Significance of Indirect Effects - Bootstrapping**

Bootstrapping analysis was performed to find further evidence for the significance of the mediating effect of career futures. For this purpose, 1000 resamples and lower and upper-bound confidence intervals were determined (Hayes, 2017). In Table 4, bootstrapping findings are presented.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Mediator</th>
<th>Predicted</th>
<th>Standardized Coefficient (( \beta ))</th>
<th>%95 CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Calling</td>
<td>Career Futures</td>
<td>Career Adaptability</td>
<td>.24*</td>
<td>[.081, .591]</td>
</tr>
</tbody>
</table>

**Notes.** *p<.05.

The bootstrapping analysis determined that the mediating effect of career futures is significant (\( \beta = .24, 95\% \) CI [.081, .591]). Also, the relationship between career calling and career futures explained the %63 variance in career adaptability and the %27 variance in career futures. As a result, the career futures partially mediate the relationship between career adaptability and career calling.

**Discussion**

Looking directly at the effects, career calling positively predicts career adaptability and the future, while career futures predict career adaptability. In the literature, career adaptability and career calling relationships have been
revealed by both theoretical (Hall & Chandler, 2005) and empirical studies (Hirschi & Herrman, 2013; Eryılmaz ve Kara, 2018a; Kara ve Eryılmaz, 2021). Hall and Chandler (2005) emphasized that increasing individuals' career callings will positively contribute to their career adaptability. According to Hirschi and Herrmann (2013), increasing the willingness of individuals positively affects their use of career adaptability. These findings support the results of this study. On the other hand, when we look at the relationships between career calling and career futures in the literature, Domene (2012) revealed that career calling has a positive relation with occupational outcome expectations. Duffy et al. (2011) stated that career calling affects individuals' seeing their future careers as more important and making them more aware of their occupational interests. These findings confirm the results of this study. In summary, career calling is a variable that motivates individuals to use their career adaptability skills and have a positive career future.

When indirect effects are examined, it is determined that there is a partial mediating effect of career futures between career calling and career adaptability. This indirect effect can be explained as follows. Increasing individuals' career callings positively affects their career futures (Domene, 2012; Duffy et al., 2011). A positive career future also improves career adaptability (Rottinghaus et al., 2005; Duffy, 2010; Tolentino et al., 2014). In other words, the individuals in this study positively influenced their career futures primarily by activating their career callings. This positive influence improved their career adaptability.

**Conclusion, Recommendations, and Limitations**

This study was carried out to reveal the relationships between career calling, career futures, and career adaptability. This research determined that career calling significantly predicted both career futures and career adaptability; career futures also partially mediate the relationship between career calling and career adaptability. In the literature, there are studies on increasing the career adaptability of Turkish counselor candidates (Eryılmaz & Kara, 2020a; Eryılmaz & Kara, 2020b). Future studies can be conducted in a quasi-experimental design to improve the career adaptability of prospective teachers. In this study, a career adaptability model for prospective teachers was reached. The results of this study can be used in quasi-experimental programs to increase the career adaptability of prospective teachers. Conducting similar studies on teachers can contribute to the literature. These model dimensions can be an essential source of information for career counselors working in university career research centers. Career counselors working in this center should consider the career calling of prospective teachers in career psychological counseling services they will develop and implement to raise prospective teachers who are compatible with their careers. They should also help them gain attitudes towards their career future. This study was designed in cross-sectional research. In addition, data were collected instantly in this study. This study is limited to 225 prospective teachers at a public university in Turkey.

**Scientific Ethics Declaration**

* The author declares that the scientific ethical and legal responsibility of this article published in JESEH journal belongs to the author.

* All stages of the study were conducted according to Helsinki Declaration. All participants provided informed consent for the data to be published and to participate in the present study.

**Notes**

This study was presented as an oral presentation at II. International Academic Research Congress.

**References**


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