

Exploring links between career adaptability, work volition, and well-being among Turkish students



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ABSTRACT

The present study examined how the four components of career adaptability (concern, confidence, control, curiosity; Savickas & Porfeli, 2012) related to life satisfaction and the degree to which life meaning and work volition mediated these relations. In Study 1, scores from the Work Volition Scale–Student Version was validated with a sample of Turkish undergraduate students. In Study 2, with a new sample of Turkish students, all four components of career adaptability were found to significantly correlate with life satisfaction. Structural equation modeling revealed that life meaning and work volition each served as significant mediators between concern, control, and life satisfaction. Additionally, in the full mediation model, none of the adaptability components significantly related to life satisfaction. These findings suggest that concern and control over one's career may link with greater life satisfaction due, in part, to an increased sense of control in career decision making and increased life meaning.

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1. Introduction

Grounded in Career Construction Theory (Savickas, 1997, 2002, 2005), career adaptability pertains to the levels of concern, confidence, control, and curiosity people feel about making career choices and transitions. Strong adaptability is linked with a host of positive work-related outcomes, including indicators of career maturity for college students and indicators of work well-being for employed adults (e.g., Douglass & Duffy, 2015; Rottinghaus, Day, & Borgen, 2005; Tolentino, Garcia, Restubog, Bordia, & Tang, 2013; Zacher, 2014). However, research is limited on how adaptability links with general indicators of well-being, such as life meaning and life satisfaction, with only a small handful of studies published on the topic (Hirschi, 2009; Maggiori, Johnston, Krings, Massoudi, & Rossier, 2013; Praskova, Hood, & Creed, 2014). Understanding these links is important given the longstanding relation between positive feelings about work and positive feelings about life in general (Judge & Watanabe, 1993; Rode, 2004). In the current study, we explored the links between the four components of career adaptability and life satisfaction among Turkish college students, examining the degree to which these relations are mediated by life meaning and work volition. It is proposed that feeling adaptable in one's career will link with increased life satisfaction due to an increased sense that one's life is meaningful and increased feelings of control in one's career decision making.

The investigation used a multi-study approach. Specifically, in Study 1 we sought to validate the Work Volition Scale–Student Version (WVS–SV; Duffy, Diemer, & Jadidian, 2012) by examining its reliability and factor structure among a large sample of Turkish students. Apart from the WVS–SV, all other instruments have been previously validated among Turkish samples (Boyras, Lightsey, & Can, 2013; Buyukgoze-Kavas, 2014; Köker, 1991). In Study 2, with a new sample of students, we examined how the four components of

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career adaptability (concern, confidence, control, and curiosity; Savickas & Porfeli, 2012) linked with life satisfaction and the degree to which life meaning and work volition mediated the relations of each of these four components to life satisfaction.

2. Career Construction Theory

Career Construction Theory (CCT; Savickas, 1997, 2002, 2005) provides a lens on vocational development across the life-span. A key component of CCT is career adaptability, regarded as an, “individual’s resources for coping with current and anticipated tasks, transitions and traumas in their occupational roles that, to some degree large or small, alter their social integration” (Savickas & Porfeli, 2012, p. 662). Put another way, career adaptability refers to self-regulatory strengths that people possess and use in response to present or future vocational tasks (Savickas, 2002).

Career adaptability, as defined in CCT (Savickas, 1997), is an overarching construct that is comprised of four dimensions – concern, confidence, control, and curiosity. Concern refers to one’s ability to look ahead and prepare for a vocational future. Confidence pertains to one’s feelings of efficacy in overcoming possible occupational constraints. Control explains how responsible and conscientious people feel about shaping their vocational future. Lastly, curiosity speaks to a person’s examination of their environment including future vocational opportunities. According to Savickas (2005), these self-regulatory strengths may be utilized in response to everyday life challenges, underscoring the relevance of career adaptability both in and out of the workplace. Building from this assertion, we propose that the four components of career adaptability can influence a person’s well-being.

3. Career adaptability and well-being

CCT (Savickas, 1997) emphasizes the importance of viewing the role of work in relation to other life roles. Savickas suggested that by viewing work in this context, counselors are more able to focus on a client’s development and well-being – of which life satisfaction and life meaning are a large component. It was also suggested that planning attitudes – known as the career adaptability component of concern – are vital in experiencing satisfaction in all life roles. Additionally, in a review of CCT and counseling – centered on the tenets of CCT – Hartung and Taber (2008) suggested that a key aim of CCT is to help foster a sense of meaning and increase life satisfaction.

Aside from the theoretical link of career adaptability to well-being, several quantitative studies have demonstrated positive relations between these two variables. In a longitudinal study with 330 Swiss adolescents, Hirschi (2009) found that career adaptability predicted life satisfaction over time. Another study with over 2000 Swiss adults found that all four components of career adaptability positively predicted life satisfaction (Maggiori et al., 2013). Maggiori et al. noted that these findings were consistent with past research that has found career adaptability to have a positive impact not only on work-related well-being, but personal well-being as well (Brown, Bimrose, Barnes, & Hughes, 2012; Rossier, Zecca, Stauffer, Maggiori, & Dauwalder, 2012). Building from these findings, Santilli, Nota, Ginevra, and Soresi (2014) examined the relation of career adaptability to life satisfaction and found all four career adaptability components to have moderate positive correlations with life satisfaction. In sum, career adaptability has consistently been linked with increased life satisfaction. Namely, people who feel more adaptable in their careers tend to be more satisfied with life in general. Consistent with these results, we hypothesize that all four components of career adaptability will significantly correlate with life satisfaction (*Hypotheses 1–4*).

However, despite these consistent positive findings between career adaptability and life satisfaction, relatively little is known regarding why this relation exists. Many of the above studies have simply looked at correlations between career adaptability and life satisfaction, failing to examine the reason why these relations may exist. Also, given that each component of career adaptability serves a unique function, it is important to study mediators in the life satisfaction relation for each of these components.

4. Mediator variables

4.1. Work volition

As noted above, the components of career adaptability provide people with self-regulatory resources to help overcome vocational obstacles. As such, we propose that feelings of career adaptability may promote work volition – defined as one’s perceived capacity to make occupational choices despite constraints (Duffy, Diemer, Perry, Torrey, & Laurenzi, 2012) – which in turn contributes to life satisfaction. Although no known study has directly examined the relation of career adaptability to work volition, the fact that career adaptability resources help people to overcome vocational challenges makes this link logical. By utilizing their career adaptability resources, individuals may be able to reduce the number of vocational obstacles they face, in turn allowing them to feel more in control of their occupational choices. Some studies have found positive links between career adaptability and constructs similar to work volition such as sense of control (Duffy, 2010), career decision self-efficacy (Douglass & Duffy, 2015), and job search self-efficacy (Guan et al., 2013), and one recent study found all four components of career adaptability to significantly correlate with work volition (Duffy, Douglass, & Autin, 2015).

Positioning work volition as a mediator between career adaptability and life satisfaction implies a link from work volition to life satisfaction. Given that working helps people to experience satisfaction (Blustein, 2006), being able to freely make occupational choices likely contributes to this sense of satisfaction. Duffy, Bott, Torrey, and Webster (2013) found that work volition positively correlated with positive affect and, moreover, Duffy, Bott, Allan, and Torrey (2013) found work volition to have a moderate positive correlation with life satisfaction. A major limitation of the above studies is that work volition has only been examined among American

samples; it's possible given the number of resources available in the United States that Americans differ from other nations in perceptions of work volition. Thus, it is essential to study the construct cross-nationally to see how work volition functions outside of the United States.

Findings suggest that work volition may help explain the career adaptability–life satisfaction relation. Namely, undergraduates who feel adaptable in their careers may feel more satisfied with life in part because they are more able to freely make occupational choices. Thus, in the present study, we hypothesize that work volition partially mediates the relations between the four components of career adaptability and life satisfaction (*Hypothesis 5*).

4.2. Life meaning

Hartung and Taber (2008) highlighted increasing a sense of meaning as one of the goals of CCT (Savickas, 1997). Given that work is considered a central part of life that allows the cultivation of life meaning (Blustein, 2006), it is likely that adaptability facilitates a sense of meaning. Moreover, in his discussion of CCT, Savickas contended that viewing the role of work in relation to other life roles helps to focus more on a client's well-being which is comprised of life meaning. When a person can harness their self-regulatory strengths in response to vocational tasks, it may be that they experience an increased sense of life meaning, which in turn contributes to an overall sense of life satisfaction. Supporting this notion, in the only known study directly examining the relation of career adaptability to life meaning, Praskova et al. (2014) found career adaptability and life meaning were moderately to strongly correlated in the positive direction over time.

By positioning life meaning as a mediator between career adaptability and life satisfaction, we imply a link between life meaning and life satisfaction. This is a link that has been well documented by dozens of studies with life meaning being positioned as preceding life satisfaction (e.g., Duffy, Allan, Autin, & Bott, 2013; Duffy, Allan, & Bott, 2012; Steger, Frazier, Oishi, & Kaler, 2006; Steger, Oishi, & Kesebir, 2011). Drawing from the noted findings regarding career adaptability, life meaning, and life satisfaction, we propose that life meaning may help to explain the relations of the components of career adaptability to life satisfaction. Namely, undergraduates who feel adaptable in their careers may feel a greater sense of life meaning which in turn contributes to increased life satisfaction. As such, in the present study, we hypothesize that life meaning partially mediates the relation between the four components of career adaptability and life satisfaction (*Hypothesis 6*).

5. Career development in Turkey

Finally, an important part of this study is assessing these hypotheses with a population that has received little attention in Western psychology journals, Turkish college students. Notable similarities and differences exist in the schooling and education of Turkish and American students, and we briefly highlight several of these areas to provide context for our current sample. Education in Turkey, as well as the United States, is provided by both public and private schools. In Turkey, similar to many states in the United States, children are required to have 12 years of education when they are generally between the ages of 6 and 18. Until the end of high school, education is funded by the state and free in public schools. In contrast to the U.S., education in Turkey is supervised and directed nationally by the Ministry of National Education (MONE). At the end of the each semester throughout the eighth grade, each student has to take nationwide exams for the transition from primary to secondary education. According to scores obtained from these national exams, students are able to choose which high school they would like to attend (e.g. Anatolian high schools, vocational high schools, science high schools). Contrary to the American education system, a major characteristic of the Turkish education system is the high priority given to academic achievement rather than extracurricular activities.

During high school years both students and their families largely focus on the nationwide university entrance exam. As a result of this exam, students are selected and placed in undergraduate programs. This exam is given once a year in two periods and each year approximately one-third of the candidates are placed in an undergraduate program. Under the pressure of that exam — which is extremely competitive — most high school students concentrate considerably on improving their exam scores to enter one of the prestigious universities and they may ignore the importance of exploring their abilities, values, and interests to make more accurate career decisions. For Turkish students, after passing the exam, it is quite difficult to change the program or department when compared to their American counterparts. As a result, each year a considerable number of students who are placed into academic programs, re-take the university entrance exam several times to enter the academic program that they desire.

In summary, compared to U.S. students, college students in Turkey have similar types of educational experiences with two key differences: a stronger focus on testing and a more cumbersome path to changing college majors once selected. These differences are important to consider when interpreting the results.

6. The present study

Building from core principles of CCT (Savickas, 1997), the primary goal of the present study was to examine the degree to which work volition and life meaning serve to mediate the relations of the four components of career adaptability — concern, confidence, control, and curiosity — with life satisfaction. Secondly, as the work volition instrument has yet to be validated with Turkish populations, an initial study was conducted examining its reliability and validity among Turkish students. To test the hypotheses, a large group of Turkish undergraduate students were surveyed and structural equation modeling was used to examine the strength of work volition and life meaning as mediator variables between career adaptability and life satisfaction. Bootstrapping techniques were then utilized to examine the significance of the indirect effects.

7. Study 1

7.1. Participants

Participants of Study 1 were 492 undergraduate students recruited from various departments in a large-public university in Samsun, Turkey. Of the participants, 184 (37.4%) were male and 308 (62.6%) were female. The mean age of the participants was 21.29 years ($SD = 1.80$ years; range = 18–27) and most of them fell in the age range of 19–22. The class distribution in this sample was 23% freshmen ($n = 111$), 24.6% sophomores ($n = 121$), 31.1% juniors ($n = 153$), 18.3% seniors ($n = 90$), and 3% other ($n = 15$) (returned students).

7.2. Instruments

7.2.1. Work volition

The Work Volition Scale–Student Version (WVS–SV) developed by Duffy, Diemer, and Jadidian (2012) was used to measure the degree to which students felt able to make occupational choices despite constraints. The WVS–SV contains a 9-item volition subscale and a 7-item constraints subscale, and students responded to items on a Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include, “I will be able to choose jobs that I want” and “What I want has little impact on my future job choice.” Both exploratory and confirmatory factor analyses were conducted to explore the factor structure of the scale (Duffy, Diemer, & Jadidian, 2012). Accordingly, results of the exploratory factor analyses revealed two factors (volition and constraints) that were confirmed using another sample of students via confirmatory factor analysis. Work volition was found to correlate in the expected directions with measures of core self-evaluations, career decision self-efficacy, career locus of control, career barriers, and five personality traits. The internal consistency reliability of the total WVS–SV scale scores was found to be $\alpha = .92$.

Since The Work Volition Scale–Student Version (Duffy, Diemer, & Jadidian, 2012) did not have a Turkish version, translations and back translation procedures were performed as a first step based on the recommendations of Ægisdóttir, Gerstein, and Canel-Çınarbaş (2008) for cross-cultural studies. Second, we compared the translations and the best translation for each item was selected. Third, we provided the Turkish and original English versions of the scale to three psychological counseling and guidance members along with a group of undergraduate students ($n = 67$) to evaluate the clarity, appropriateness, and meaning of the items – we made minor changes based on feedback received. Then, we collected data from 492 undergraduate students to test the factor structure of the WVS–SV Turkish form. Also, convergent validity and internal consistency coefficients were calculated.

7.2.2. Core self-evaluations

The 12-item Core Self-Evaluations Scale (CSES; Judge, Erez, Bono, & Thoresen, 2003) was used to measure assessments that people make about their worthiness, competence, and capabilities. Students responded to items using a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include, “I complete tasks successfully” and “I determine what will happen in my life.” Findings of the confirmatory factor analyses revealed that the scale displayed a unitary factor structure which was correlated with job satisfaction, job performance, and life satisfaction (Judge et al., 2003). The scale exhibited a high level of internal consistency with alphas ranging from .81 to .87, and a test–retest reliability of (.81). The reliability and validity studies of the scale were conducted by Bayazit (2003) and Güven (2007) findings revealed that the Turkish version of the Core Self-Evaluations Scale has a similar factor structure to the original version and has high internal consistency reliability (.85). In the current study, the estimated internal consistency reliability was .83.

7.3. Procedure

This research was approved by the Ethics Committee of the Ondokuz Mayıs University as a part of Study 2. The measures were completed in paper-and-pencil format. Students voluntarily participated in the study during class time. We provided students with an informed consent regarding the aim of the study, confidentiality, and the right to withdraw from the study at any time. Students received no compensation.

8. Results

Prior to conducting any statistical analyses kurtosis and skewness indices were examined and no cases were outside of the range (± 1.96) hence, no univariate outliers were identified in the data (Tabachnick & Fidell, 2013). In addition, assumptions of normality, linearity, homoscedasticity, and independence of residuals were subsequently checked and 26 cases were excluded from the data set.

Confirmatory factor analysis (CFA) is viewed appropriate when there are some empirical studies which provide some knowledge of the underlying latent variable structure (Byrne, 2009). Thus, in a CFA, a priori structure is provided and the adequacy of how well the data fit the provided structure is tested. In order to test the original two-factor solution of the WVS–SV (Duffy, Diemer, & Jadidian, 2012), a CFA with maximum likelihood estimation (ML) was conducted using IBM AMOS 22 software (Arbuckle, 2013) and was judged on the following fit indices: chi-square (χ^2), the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). A nonsignificant χ^2 suggests good fit, but is not a reliable test with sample sizes over 200 (Tabachnick & Fidell, 2013). The CFI compares the proposed model to a model that considers all the variables to be uncorrelated. According to Hu and Bentler

(1999), values greater than .95 represent good fitting models. The RMSEA evaluates the degree to which the proposed model would fit population covariance matrices if the optimal parameter estimates were available. Tabachnick and Fidell note that RMSEA values less than .06 indicate good fit, while values greater than .10 signify poor fit.

The results of the CFA revealed that all items loaded on their expected factor and were consistent with the original structure of the scale (Fig. 1) and model fit indices $\chi^2(2.70, N = 492) = 278.374$, RMSEA = .059, 90% CI = [.051 .067], CFI = .96, indicating a good fit to the data. In addition, internal consistency reliability was .89 for the total scale, .78 for volition subscale and, .93 for constraints subscale. Consistent with WVS–SV instrument development study (Duffy, Diemer, & Jadidian, 2012) we hypothesized that both the total WVS–SV Turkish Form and its subscales would be positively correlated with core self-evaluations. Accordingly, core self-evaluations moderately correlated with the total WVS–SV Turkish Form ($r = .47, p < .01$), with the volition subscale ($r = .38, p < .01$) and the constraints subscale ($r = .39, p < .01$). Also, there was a significant moderate correlation between the volition and constraints subscales ($r = .31, p < .01$).

9. Discussion

The aim of Study 1 was to evaluate the factor structure of the Turkish Form of the WVS–SV (Duffy, Diemer, & Jadidian, 2012) via confirmatory factor analysis. The results of the CFA demonstrated that the two-factor solution fit the data very well. Relatively high internal consistency estimates were found for the total scale and for the constraints subscale, and adequate internal consistency reliability was found for the volition subscale of the Turkish Form of the WVS–SV. As evidence for convergent validity, The Turkish Form of the total WVS–SV and its subscales exhibited significant moderate correlations with core self-evaluations. Thus, the findings of Study 1 suggested that the Turkish Form of the WVS–SV is a valid and reliable measure with Turkish undergraduate students.

10. Study 2

10.1. Participants

Participants in Study 2 were 1727 undergraduate students recruited from various departments in a large-public university in Sam-sun, Turkey. Of the participants, 641 (37.1%) were male, 1079 (62.5%) were female, and 7 (.4%) did not report. The mean age of the participants was 21.09 years ($SD = 1.79$ years; range = 18–27) and most of them fell in the age range of 19–23. The class distribution in this sample was 32.4% freshmen ($n = 559$), 21.1% sophomores ($n = 364$), 25.8% juniors ($n = 446$), 16.9% seniors ($n = 291$), 3.8% other ($n = 66$; returned students), and .1% ($n = 1$) did not report.

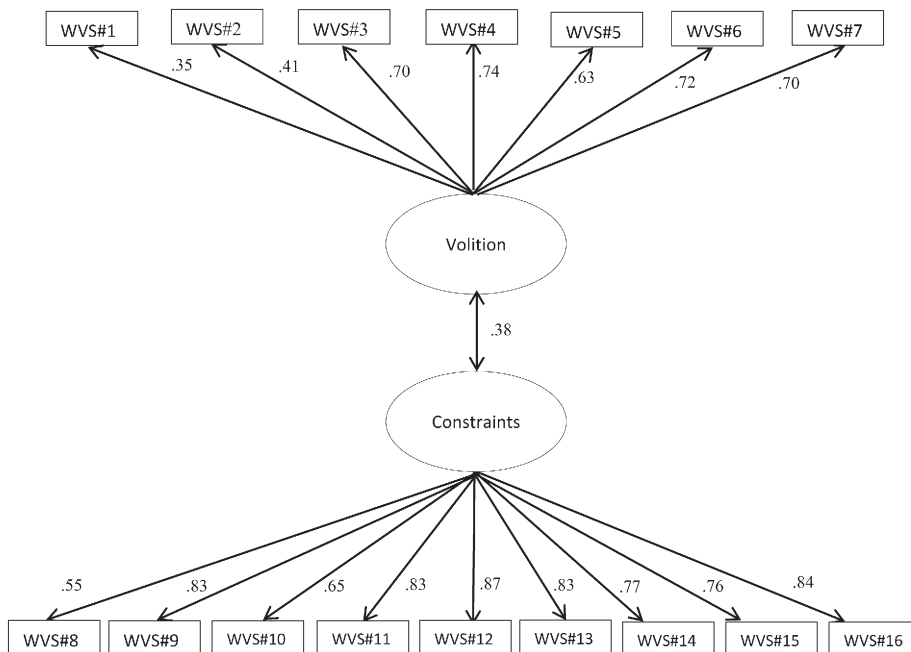


Fig. 1. Measurement model: confirmatory factor analysis. Note. $N = 492$. Standardized (β) coefficients are indicated for factor loadings. All coefficients are significant at $p < .05$.

10.2. Instruments

10.2.1. Work volition

The same Work Volition Scale–Student Version Turkish Form discussed in Study 1 was used in Study 2. The estimated internal consistency reliabilities of scales scores were as follows: volition ($\alpha = .79$) and constraints ($\alpha = .83$).

10.2.2. Career adaptability

The 24-item Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012) was administered to assess the levels of students' career adaptability. The CAAS is comprised of four 6-item subscales – concern, control, confidence, and curiosity – and students responded on a 5-point Likert scale ranging from 1 (*not strong*) to 5 (*strongest*). The directions were “Please rate how strongly you have developed each of the following abilities” and students were provided with statements such as “Preparing for the future” and “Making decisions by myself.” In the instrument development study, Savickas and Porfeli found the CAAS correlated in the expected direction with vocational identity, and the internal consistency reliabilities for subscale scale scores ranged from $\alpha = .75$ to $\alpha = .85$; the internal consistency reliability for the total CAAS scale scores was $\alpha = .92$ (Savickas & Porfeli, 2012). The CAAS has been validated with a Turkish sample and was found to correlate in the expected directions with measures of hope and optimism (Buyukgoze-Kavas, 2014). The internal consistency reliabilities for the CAAS Turkish form subscale scale scores ranged from $\alpha = .74$ to $\alpha = .81$ with $\alpha = .91$ for the total CAAS scale scores (Buyukgoze-Kavas, 2014). In the present study we used the CAAS Turkish form. The estimated internal consistency reliability for the total scale scores was $\alpha = .92$ and for the subscales scores was as follows: concern ($\alpha = .81$), control ($\alpha = .78$), curiosity ($\alpha = .78$), and confidence ($\alpha = .82$).

10.2.3. Life meaning

The 5-item Presence subscale of the Meaning in Life Questionnaire (MLQ; Steger et al., 2006) was used to measure students' presence of life meaning. Participants responded to items on a 7-point Likert scale ranging from 1 (*absolutely untrue*) to 7 (*absolutely true*). Example items include “My life has a clear sense of purpose” and “I have a good sense of what makes my life meaningful.” In regard to validity, the Presence subscale was found to correlate in the expected directions with measures of intrinsic religiosity, life satisfaction, and positive emotions, and the internal consistency reliability for the Presence subscale scores has been found to range from the low to high .80s (Steger et al., 2006; Strack, 2007). The MLQ has been validated among Turkish samples with an internal consistency reliability for the Presence subscale scores of $\alpha = .87$ and correlations in the expected directions with measures of negative affect and well-being (Boyras et al., 2013). In the present study the Turkish version of the MLQ Presence subscale was used and the estimated internal consistency reliability for the scale scores was $\alpha = .74$.

10.2.4. Life satisfaction

The 5-item Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) was used to measure levels of students' satisfaction with life. Participants responded on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), and example items include “I am satisfied with my life” and “In most ways my life is close to my ideal.” Diener et al. found the scale scores to have an internal consistency reliability of $\alpha = .87$ and also found the scale to correlate in the expected directions with other measures of well-being. Köker (1991) validated the SWLS with a Turkish sample and found the internal consistency reliability was $\alpha = .80$. In the present study we used the SWLS Turkish version, and the estimated internal consistency reliability was $\alpha = .84$.

10.3. Procedure

After obtaining approval from the Ethics Committee of the Ondokuz Mayıs University, we collected the data for Study 2 from a new group of participants during the spring 2014 academic semester. Similar to Study 1, we administered the measures together with an informed consent form emphasizing that responses were voluntary, anonymous, and confidential. Appointments were arranged by the first author with course instructors from ten faculties and data were collected by the first author and three graduate students over a one-month period. The measures were completed in paper and pencil format during regular class hours.

11. Results

Prior to assessing the structural model, a number of preliminary analyses were conducted. First, we examined the skewness and kurtosis of all seven model variables. None of these values were over 1 and all appeared normally distributed. As such, these were kept in their original format. Second, we examined the bivariate correlations among the seven variables. As seen in Table 1, all four components of career adaptability were found to weakly to moderately correlate with work volition, moderately correlate with life meaning, and weakly to moderately correlate with life satisfaction. Work volition and life meaning were also found to moderately correlate with life satisfaction, thus meeting the conditions necessary for testing mediation (Frazier, Tix, & Barron, 2004).

11.1. Measurement model

In order to test a structural model, it is necessary to first examine whether there is a good fit with the observed indicators on their associated latent constructs. The current model consisted of seven latent constructs and for six of these constructs the individual items were used as observed indicators: concern (6 items), control (6 items), curiosity (6 items), confidence (6 items), life meaning (5 items),

Table 1
Descriptive statistics and correlations – Study 2.

	1	2	3	4	5	6	7	8
1. CA – Concern	–							
2. CA – Control	.51	–						
3. CA – Curiosity	.54	.55	–					
4. CA – Confidence	.54	.63	.67	–				
5. CAAS – Total	.79	.81	.83	.86	–			
6. Work volition	.28	.32	.25	.26	.34	–		
7. Life meaning	.38	.32	.30	.31	.40	.40	–	
8. Life satisfaction	.33	.32	.27	.28	.36	.35	.40	–
M	21.70	22.47	21.57	21.95	87.69	77.85	25.96	22.47
SD	4.54	4.38	4.31	4.40	14.52	14.06	5.41	6.38

Note. All correlations significant at $p < .001$.

and life satisfaction (5 items). As work volition was composed of two subscales (volition, 7 items) and constraints (9 items), these two subscales were used as the observed indicators. Confirmatory factor analysis was conducted to examine the fit of the measurement model using EQS 6.2 (Bentler, 2006). The measurement model was an adequate fit to the data: $\chi^2(539, N = 1727) = 2153.38, p < .001, CFI = .92, RMSEA = .04$. All observed indicators had factor loadings on their latent construct of at least .45.

11.2. Structural models

Two structural models were run. First, we examined a *direct effects model* assessing the degree to which the four components of career adaptability predicted life satisfaction without including the mediator variables. This model was an adequate fit to this data: $\chi^2(367, N = 1727) = 1681.64, p < .001, CFI = .93, RMSEA = .05$. In this model, concern ($\beta = .24$) and control ($\beta = .26$) were each found to be significant predictors whereas curiosity ($\beta = -.01$) and confidence ($\beta = -.01$) were not. Second, a structural model was tested which positioned work volition and life meaning as mediators linking the four components of career adaptability to life satisfaction (See Fig. 2). This model was also an adequate fit to the data: $\chi^2(540, N = 1727) = 2248.97, p < .001, CFI = .92, RMSEA = .04$. Both work volition and life meaning were found to directly predict life satisfaction. Additionally, concern and control were each found to directly predict work volition and life meaning. After including the mediator variables into the model, none of the career adaptability components significantly predicted life satisfaction, indicating mediation.

In order to formally test these mediation effects, we conducted bootstrapping analyses. Specifically, based off our data, we created 1000 random samples and calculated the mean parameter estimates. Following guidelines by Shrout and Bolger (2002), these

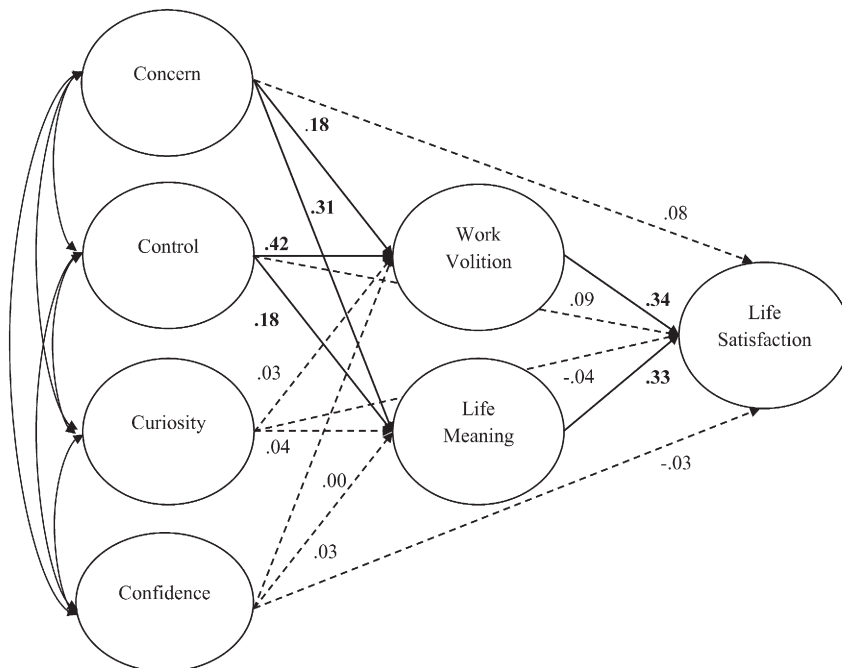


Fig. 2. Structural equations model. Paths in bold are significant at the $p < .05$ level.

estimates were then multiplied together and the 95% confidence intervals were examined for these computed indirect effects. If these intervals do not include zero, the effect is deemed to be significant. Based on Frazier et al.'s (2004) recommendations, indirect effects were examined when both the predictor to mediator and mediator to outcome paths were significant. This resulted in four tested paths: concern to life satisfaction as mediated by work volition and life meaning and control to life satisfaction as mediated by work volition and life meaning. The indirect effect of concern on life satisfaction as mediated by work volition was significant, (95% CI [.02, .15], $\beta = .08$, $SE = .001$) as was the indirect effect of control on life satisfaction as mediated by work volition (95% CI [.10, .38], $\beta = .22$, $SE = .001$). Additionally, the indirect effect of concern on life satisfaction as mediated by life meaning was significant, (95% CI [.08, .19], $\beta = .13$, $SE = .001$) as was the indirect effect of control on life satisfaction as mediated by life meaning (95% CI [.004, .18], $\beta = .09$, $SE = .001$).

12. Discussion

The results of the current study advance our understanding of the links between career adaptability and well-being, specifically highlighting the role of work volition and life meaning as mediators. As hypothesized, all four components of career adaptability were significantly, weakly-moderately correlated with life satisfaction. However, testing the full structural model showcased how each of these variables related to life satisfaction after including the mediator variables. Specifically, in the full model no significant relations existed between any of the career adaptability components and life satisfaction, indicating that work volition and life meaning at least in part explained how career adaptability related to life satisfaction.

Interestingly, these mediations only existed with two of the four career adaptability components — concern and control — with concern more strongly relating to life meaning and control more strongly relating to work volition. Example items from the concern subscale include, “Thinking about what my future will be like” and “Concerned about my career.” From a volitional perspective, students who have greater concern for their future career in particular may develop a greater sense of choice in their future decision making, ultimately linking with higher life satisfaction. However, the life meaning connection is more robust and tied to past literature. Life meaning is a critical component of overall satisfaction with life (e.g., Peterson, Park, & Seligman, 2005; Ryff & Singer, 1998; Steger et al., 2011; Zika & Chamberlain, 1992) and for many individuals a career is a primary source of meaning (e.g., Blustein, 2006; Cartwright & Holmes, 2006; Savickas, 2000). As such, students in this study who were more concerned about their career likely experienced greater satisfaction primarily due to feeling a greater sense of meaning in life.

Life meaning and work volition each mediated the control-life satisfaction link, and in this case work volition was a more robust correlate. Numerous studies have linked general feelings of control with a sense of meaning in life (e.g., Park, 2010; Ryff, 1989; Ryff, 1995), and students in this study who felt more in control of their career may also draw on this as a source of meaning, ultimately relating to greater life satisfaction. However, the more robust relation was with work volition. The control component of career adaptability and work volition both concern feelings of control, one is about a career in general and another is about future career decision making. Although these are not the same construct (note correlation of .32), they share a similar foundation. Considering the central role that choosing a career plays in the lives of college students, feeling in control of this choice (perhaps boosted by feeling in control of one's career in general) likely promotes a greater sense of well-being.

Two more findings are worth discussing. First, in the prediction of life satisfaction, work volition and life meaning were equal contributors. Although hundreds of studies have linked life meaning with life satisfaction (e.g., Chamberlain & Zika, 1988; Duffy, Allan, et al., 2013; Duffy & Sedlacek, 2010; Steger & Kashdan, 2007; Steger et al., 2006), only one has linked work volition with life satisfaction (Duffy, Bott, Torrey, et al., 2013). The fact that they were equal contributors in this study may imply that for college students feeling in control of their career decision making is just as important as feeling a sense of meaning when it comes to happiness. Second, the curiosity and confidence components of career adaptability did not significantly predict life satisfaction or either mediator variable in the full model. Although curiosity and confidence showed significant bivariate correlations with these variables, after accounting for the other adaptability components these relations were nonexistent. This may imply that when it comes to well-being, the concern and control components of adaptability are most important.

In sum, the results of this study advance our understanding of how career adaptability links with life satisfaction among undergraduate students. After demonstrating the cross-cultural validity of the Work Volition Scale–Student Version (Duffy, Diemer, & Jadidan, 2012) in Study 1 we tested a structural equation model in Study 2 showing that work volition and life meaning mediated the relations between two components of adaptability — concern and control — and life satisfaction. Results suggest that for undergraduate students, feeling concerned about, and in control of, one's career relates to greater life satisfaction due in part to an increased sense of life meaning and choice in one's career decision making.

12.1. Limitations and future directions

The findings of the present study must be considered in light of a number of limitations, each of which inform directions for future research. First, causal conclusions cannot be drawn given the cross-sectional nature of the study — future work should examine how the investigated variables link together over time. Second, both samples were of undergraduates and were largely female. In order to increase the generalizability of our findings, scholars should replicate our findings outside of the college domain and gather adult samples that are more diverse. Similarly, although the present study is the first known study to examine work volition outside of the United States, future work should gather samples across multiple cultures to examine potential similarities and differences; the present study has helped to garner an understanding of work volition in the Turkish context, but additional research is needed in other countries.

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