



The career distress scale: structure, concurrent and discriminant validity, and internal reliability in a Turkish sample

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Abstract

The purpose of this study is to adapt the career distress scale for Turkish university students. Participants are 493 undergraduate students. Results indicated that the two-factor structure better fit the data. For discriminant and concurrent validity, correlation coefficients with Positive and Negative Affect Schedule and Career Decision Inventory is measured. The Cronbach α internal consistency coefficient was .81 for negative emotions subscale and .65 for perceived obstacles subscale and .81 for the entire scale. These results indicate that the scale is valid. The strengths and limitations of this study are discussed, also implications for future studies are recommended.

Résumé.

L'Échelle de Détresse Professionnelle : structure, validité convergente et discriminante, et consistance interne dans un échantillon turc L'objectif de cette étude est d'adapter l'échelle de détresse professionnelle pour des étudiants turcs. Les participants sont 493 étudiants de premier cycle. Les résultats indiquent qu'une structure en deux facteurs s'adapte le mieux aux données. Pour la validité discriminante et convergente, les coefficients de corrélation entre l'Echelle d'Affects Positifs et Négatifs (*Positive And Negative Affect Schedule*) et l'Inventaire des Décisions de Carrière (*Career Decision Inventory*) sont mesurés. Le coefficient de consistance interne Alpha de Cronbach est de .81 pour la sous-échelle d'émotions négatives, de .65 pour la sous-échelle des obstacles perçus et de .81 pour l'ensemble de l'échelle. Ces résultats montrent que l'échelle est un instrument valide. Les forces et les limites de cette étude sont discutées, ainsi que les implications pour les recherches futures.

Zusammenfassung.

Die Karriere-Not-Skala : Struktur, konkurrente und diskriminante Validität und interne Konsistenz in einem türkischen Sample Das Ziel dieser Studie ist es, die Karriere-Not-Skala für türkische Universitätsstudenten anzupassen. Teilnehmer

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waren 493 Bachelor-Studenten. Die Ergebnisse zeigen, dass eine Zwei-Faktoren Struktur den Daten besser entspricht. Um die diskriminante und konkurrente Validität zu ermitteln, wurden Korrelationskoeffizienten mit der Positiven und Negativen Affekt Liste und dem Berufsentscheidungsinventar gemessen. Der Koeffizient der internen Konsistenz - Cronbach α – war .81 für die Subskala “negative Gefühle” und .65 für die Subskala “wahrgenommene Hindernisse” und .81 für die gesamte Skala. Diese Resultate deuten darauf hin, dass die Skala als valide gelten kann. Es werden sowohl die Stärken und Grenzen der Studie diskutiert als auch Empfehlungen für zukünftige Studien gemacht.

Resumen.

La Escala de dificultad profesional: Estructura, Validez Concurrente y Discriminante y Confiabilidad Interna en una Muestra Turca El propósito de este estudio es adaptar la escala de dificultades profesionales para estudiantes universitarios turcos. Los resultados indicaron que la estructura de dos factores es la que mejor se ajusta a los datos. Para la validez discriminante y concurrente, se miden los coeficientes de correlación con el Registro de Afecto Positivo y Negativo y el Inventario de Decisión de Carrera. El coeficiente de consistencia interna Cronbach α fue .81 para la subescala de emociones negativas y .65 para la subescala de obstáculos percibidos y .81 para toda la escala. Estos resultados indican que la escala es válida. Se discuten las fortalezas y limitaciones de este estudio, también se recomiendan implicaciones para futuros estudios.

Keywords Career · Career distress · College students

Introduction

Career development starts from early childhood years and continues with adolescence and young adulthood in which a career decision is made. According to Super's theory, during the exploration stage, which included both adolescence and young adulthood (15–24 years), crystallization and specification of a career preferences and actualization of an occupational choice are expected (Savickas, 2002; Siyez, 2014). Also, forming an occupational identity is another important developmental task in these periods (Kuzgun, 2014; Skorikov & Vondracek, 2011). Unfortunately, this process is not always easy.

Individuals who have a crystallized occupational identity report positive perceived employability, higher life satisfaction, and they feel less career distress (Hirschi, 2011; Praskova, Creed, & Hood, 2015; Skorikov & Vondracek, 2011). Career distress can be defined as individuals feeling distress about career decision making, avoidance from career thoughts or goal setting (Creed & Gagliardi, 2015). Career distress can influence university students in many aspects. Research shows that career distress is related to self-efficacy, career indecision, state and trait anxiety, depression and anxiety (Creed & Hood, 2013; Fuqua & Hartman, 1983; Hinkelman & Luzzo, 2007). Moreover, career distress has a negative influence on

people's future career choices, college retention rates, and interpersonal relationships (Hinkelman & Luzzo, 2007; Lucas, Skokowski, & Ancis, 2000; Sharkin, 2004; Turner & Berry, 2000). Also, career distress is associated with exploration, commitment, and career compromise (Creed & Blume, 2013; Creed & Gagliardi, 2015; Creed & Hennesy, 2016).

Career distress is quite common among young adults, such that university students resort to exploring the opportunities on campus for these concerns (Schwatken, 2014). In a large longitudinal study, it was found that a rate of between 22 and 25% of students who apply to the psychological counseling center of the university received support about career and occupational indecisions (Benton, Robertson, Tseng, Newton, & Benton, 2003). In light of this information, to serve bigger numbers of students, the Academic and Career Information Center was founded within the university. Gizir (2005) revealed that "occupational problems" was in the 3rd place among the nine problem areas in which university students in Turkey reported most frequently. Taking into account all of these, it is seen how important careers and career distress among young adults are.

Although career distress is so prevalent and affects young adults in many aspects, research in this area appears to be poor. Creed et al. (2016) stated the absence of a specific scale to assess career distress in young people who are in the process of deciding on a career direction. In order to fill this gap, researchers devised a short version of the Career Distress and Obstacles subscale of the Coping with Career Indecision Scale, which consists of 35 items in total (Larson, Toulouse, Ngumba, Fitzpatrick & Heppner, 1994; as cited in Creed et al., 2016). The Career Distress Scale is a 12-item short scale to measure the level of distress in relation to the career in young adults.

High school seniors in Turkey are leading their professional preferences with scores from a two-stage examination and often to meet the expectation of their families. Over two million students take these examinations every year (Öğrenci Seçme ve Yerleştirme Merkezi [Student Selection and Placement Center], 2017), and they apply to several universities to be able to study at one of them. Many students enroll in undergraduate programs that they have little or no interest or even where they do not really want to study because of some concerns such as having an occupation and an economic livelihood (Gündoğan, Gül, Uskun, Demirci, & Keçeci, 2007). Many young people make wrong choices for variety of reasons. For instance, they may enroll an undergraduate program in a university for the simple reason that their family lives in this city. They can enter a career path that is hard to compensate (Gelibolu, 2014; Yurtseven and Paker, 2015). It seems students who start university under these conditions inevitably feel career distress.

Career behavior is in an interaction with culture (Noordin, Williams and Zimmer, 2002) and the factors influencing the students' career decisions varies among cultures (Özbilgin, Küskü & Erdoğan, 2005). Individualist and collectivist dimensions are seen to be important in understanding career development (Kidd, 2006). Individualism refers to being emotionally unbound and independent from others (Triandis, 2001). In individualist cultures, individuals are more determined to frame their personal goals and pursue their career goals despite the obstacles and inconveniences (Noordin, Williams and Zimmer, 2002). However, in collectivist cultures, parents, partners and close friends have strong influences on career

decisions (Kidd, 2006). The Career Distress Scale was developed in Australia, which has an individual structure. Turkey has more collectivist cultural characteristics than Australia (Kağıtçıbaşı, 1997). However, no scale was developed in order to determine specifically the career distress level of young adults in Turkey. Examining the validity and reliability of the Career Distress Scale in a different cultural structure will contribute to the literature with this study. The purpose of this study is to examine the validity and reliability of the Turkish form of the Career Distress Scale based on Turkish college students.

Method

Participants

Participants were 493 undergraduate students (54.4% female and 45.6% male) from four faculties in a state university from Uşak, Turkey. Randomized sampling was used to determine the faculties. Participants' ages ranged from 18 to 40 years ($M_{\text{age}} = 21.15$, $SD = 2.11$). In terms of grade level 23.5% of participants were freshman, 34.7% were sophomores, 20.1% were juniors and 21.7% were seniors.

Measures

Career Distress Scale

The Career Distress Scale (CDS) determines the level of distress that individuals feel related to career situations (sample item, "I often feel down or depressed about selecting a career"). The scale is scored as a six-point Likert type (1 = *strongly disagree*, 6 = *strongly agree*). Students were asked to indicate their level of agreement for each item. The increase in the score at the scale means that the level of career distress is also increasing (Creed et al., 2016). The CDS was based on the 12-item Career Distress and Obstacles subscale and 35-item Coping with Career Indecision Scale, which was developed by Larson et al. (1994) (as cited in Creed et al., 2016). At first, 12 items were written, but during the analyses, Creed et al. determined that three items did not fit the Rasch measurement model. Following the removal of these three items, nine items met expectations of the model (Creed et al., 2016). Also, confirmatory factor analysis confirmed that single factor. The concurrent validity of the original CDS was evaluated by examining its relationship with the Positive and Negative Affect Schedule (PANAS). CDS was correlated positively with negative affect ($r = .45$, $p < .001$) and negatively with positive affect ($r = .34$, $p < .001$). Cronbach α was determined to be .90 for the CDS (Creed et al., 2016).

Positive and Negative Affect Schedule

The Positive and Negative Affect Schedule (PANAS) was developed by Watson, Clark and Tellegen (1988) and adapted to Turkish by Gençöz (2000). The scale consists of 20 items. It is scored as a five-point Likert type (1 = *very slightly or not*

at all, 5 = *extremely*). The increase in the subscale points means level of positive and negative affect is also increasing. The scale has two subscales consisting of 10 items and they measure positive and negative affect levels. Cronbach α of the scale was found .83 and .86 for the positive and negative emotional sub-dimensions, respectively. In this study, Cronbach α was determined to be .84 for positive affect subscale and .81 for negative affect subscale.

Career decision inventory

The Career Decision Inventory (CSI) was developed by Çakır (2004) for high school students and was adapted to university students in 2015 by the researcher. The aim is to measure students' career indecision levels. It consists of 20 items and is scored as a five-point Likert type (1 = *strongly disagree*, 5 = *strongly agree*). Increase in the scale points means that the indecision level is also increasing. After exploratory and confirmatory factor analysis, it was determined that the scale has a four-factor structure. Correlation between two semi-reliabilities was found ($r = .87$) and ($r = .84$) in the test–retest method. Cronbach α was determined .90 for the whole scale and .84 for the first subscale; .70 for the second subscale; .74 for the third subscale; and .82 for the fourth subscale. In this study, Cronbach α reliability coefficients of the CDI were .89, .80 for the “internal conflict” subscale, .70 for the “nonfunctional thoughts about career choice” subscale, .73 for the “lack of information on career choice” subscale, and .89 for the “not knowing oneself enough” subscale.

Translation

In order to translate the CDS into Turkish, permission was obtained from Peter Creed, one of the academicians who developed the scale. Firstly, all of the items were translated to Turkish by three psychological counseling and guidance graduate students. Then, an academician compared three different translations and developed a common Turkish form that meets the semantics of meaning. After deciding on the Turkish form, the items were translated into English by another academician who knows English very well. Back-translated English items were sent to the adaptor of the scale, Peter Creed, who was asked whether the meaning of the original items were preserved. According to Creed's feedback, four items (five, seven, eight and nine) had some slightly different content. Back-translated versions of the items were as follows: “I tend to pretend to close up any career problem and that problem is gone” (item five), “I often hope that my some problems on the career choice would disappear” (item seven), “I don't have special talents which will provide to maintain my first career choice” (item eight) and “Knowing that an important person in my life will not approve of the career I choose keeps me from looking for a career” (item nine). Four items were semantically revised and translated to English again. The items back-translated to English again were as follows: “I tend to cover up any career problem and pretend it does not exist” (item five), “I often hope that the problems about career selection would disappear” (item seven), “I don't have the special talents to continue my first career choice” (item eight) and “If someone important to me doesn't approve of my career choice, I can't seek that

career” (item nine). After confirmation from Creed, the scale took its final form (see “Appendix” for the original, back-translated and Turkish versions of the items).

Procedure

In order for the Career Distress Scale to be adapted to Turkish, firstly, permission was required from the developers of the scale. Then, permission was obtained from Uşak University Social and Human Sciences Ethics Committee Presidency to be able to work with the participants. The data were collected by the first researcher from the participants in the 2016–2017 spring semester. The form that includes the scales was given to the students in classrooms after the aim of the study was explained. Students were free to participate or not. Participation of the volunteer students was ensured. In total, 507 students filled out the scale form. From the data collected from 14 students, it was determined that 10% of the total number of items were left blank and these data were not taken into evaluation. One scale form was completed in about 10–15 min.

Analysis

Factor structure of the Turkish form of the CDS was evaluated by confirmatory factor analysis (CFA) based on the covariance matrix and used maximum-likelihood estimation with the Lisrel 8.30 software package (Jöreskog & Sörbom, 1999). For model fit evaluation, the following indices were used: (1) square root mean residual $\leq .10$, (2) goodness-of-fit index (GFI) $\geq .90$, (3) adjusted GFI $\geq .90$, (4) comparative fit index (CFI) $\geq .95$, (5) root mean square error of approximation (RMSEA) $< .08$, (6) ratio χ^2 /degrees of freedom (χ^2/df) with a value less than two or three, and (7) standardized root mean square residual (SRMR) $< .05$ (Hu & Bentler, 1999). Before conducting the CFA, we evaluated assumptions of multivariate normality and linearity with SPSS. After establishing the factorial validity of the Turkish form of the CDS, a number of correlational analyses were conducted to investigate concurrent and discriminant validity in the same sample. To evaluate the reliability of the Turkish version of the CDS with our sample, we examined the internal consistency of the scale. Corrected item–subscale correlations and Cronbach’s α coefficients were computed for the subscales. In the following analyses, the criterion $p < .05$ was used to determine if the results were significant.

Results

Reliability analyses

To test the reliability of CDS, Cronbach α was calculated. Cronbach α was found .81 for the whole scale, .81 for negative emotions subscale and .65 for the perceived obstacles subscales. These findings indicate that the scale is reliable. Correlation between individual items and their respective subscales ranged from .40 to .48 for negative emotions, from .49 to .64 for perceived obstacles. Furthermore, inter

correlation between negative emotions and perceived obstacles were .48. This moderate correlation provide evidence that university students can distinguish between the separate domains of the Turkish form of the CDS.

Confirmatory factor analyses

To examine the structural validity of the scale, unidimensional structure was tested with CFA. The coherence indexes of the Turkish form, which originally was a one-dimensional scale, did not suggest good model fit; $\chi^2(27) = 210.39$, $\chi^2/df = 7.79$, RMSEA = .117, AGFI = .860, GFI = .910, CFI = .870, SRMR = .07. The results showed that the original unidimensional model did not archive acceptable values of the good fit indexes (Hu & Bentler, 1999). As the CFA did not give coherent indexes for the unidimensional scale, items were overlooked by the researchers. The expression of emotions may differ in collectivist and individualist cultures (McLeod, 2001). While individualist cultures tend to have a little emotional involvement (Triandis, 1989), emotions are an important part of life in collectivist cultures such as Turkey (Mesquita, De Leersnyder, & Albert, 2014). So, it was thought that the scale can be separated into two factors called “negative emotions” (items one, two, three, four and seven) and “perceived obstacles” (items five, six, eight, nine). This two-factor model has been tested with CFA.

The two-factor model was a better fit to the data than the original unidimensional scale. The values for the path diagram and coherence indexes explained the two-factor scale very well. The model fit indices for the CFA were adequate: $\chi^2(27) = 76.28$, $\chi^2/df = 2.93$, RMSEA = .063, AGFI = .940, GFI = .970, CFI = .950 and SRMR = .041. The CFI, GFI, AGFI, NFI, RMSEA and SRMR were in the acceptable range (Hu & Bentler, 1999) (see Figure 1).

Regarding concurrent validity, correlation between the Turkish form of the CDS subscales and total score and the PANAS and CDI scores were calculated (see Table 1). The total scores of CDS and CDI correlated negatively and significantly ($r = -.37$, $p < .05$). All sub-dimensions of both CDS, PANAS and CDI correlated significantly each other except for the “not knowing oneself enough” sub-dimension of CDI. The “not knowing oneself enough” sub-dimension did not correlate significantly with the sub-dimensions of CDS and PANAS.

Discussion

The present study examined the validity and reliability of the Turkish form of the Career Distress Scale (T-CDS). The first main finding of this study showed that in contrast to the original scale, the Turkish form of the CDS factor structure was best modeled by two correlated factors (negative emotions and perceived obstacles). One possible explanation is that, as stated in the introduction section, Creed et al. (2016) composed the CDS based on the Career Distress and Obstacles subscale of the Coping with Career Indecision Scale (Larson et al., 1994; as cited in Creed et al., 2016). Actually, a two-structure solution represents the theoretical background of the scale.

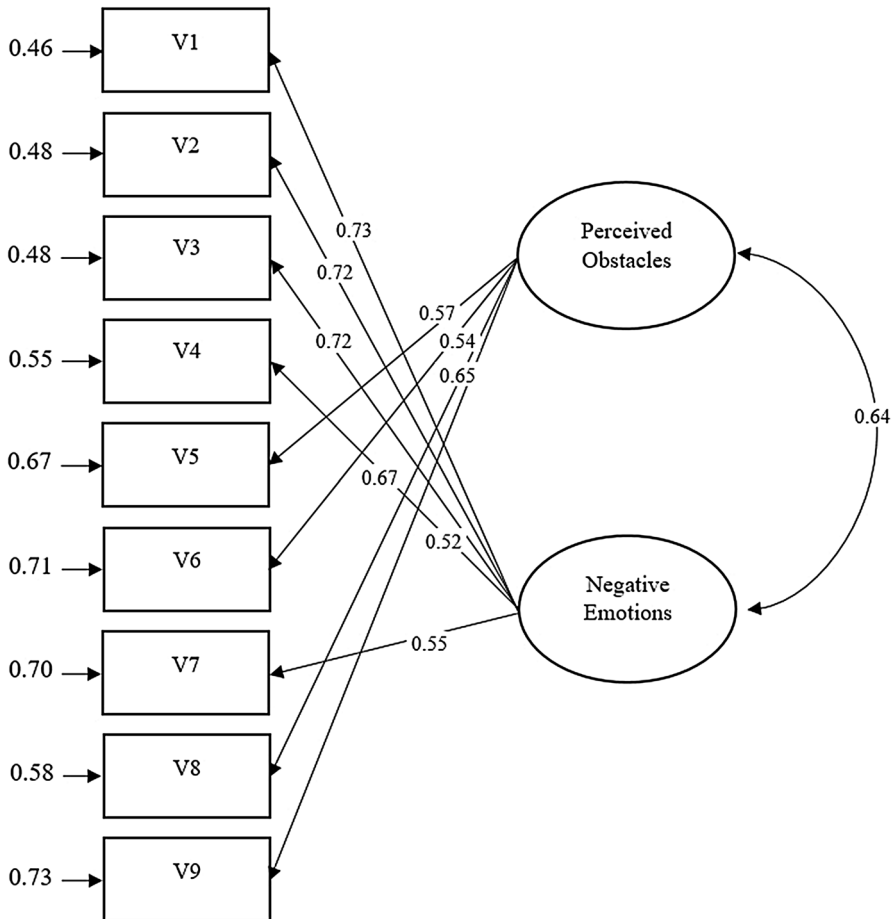


Figure 1 Confirmatory factor analyses results

On the other hand, differences in factor structures in the original scale and Turkish version can be explained with construct bias. Construct bias occurs if the construct measured is not identical across cultures (He & Van de Vijver, 2012; Van de Vijver Tanzer, 2004). According to this definition, career distress might have different meanings in two cultures. There was not any research in the literature that compares the career experiences of Turkish and Australian university students. We can say that the characteristics of individualist culture are more visible in Australia, whereas the characteristics of a collectivist culture are more visible in Turkey. For example, young people mostly consult their families when making their career plans and taking career decisions in Turkey (Bacanlı, 2016; Özyürek & Atıcı, 2016). Also, college students, who felt like they were not able to meet the career expectations of their parents, experienced more psychological distress in collectivist cultures (Wang & Heppner, 2002). It is thought that these differences in the cultural structure may lead to differentiation of career distress in different forms.

Table 1 CDS, PANAS and CDI correlations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Total career distress	1								
(2) Negative emotions	.90***	1							
(3) Perceived obstacles	.80***	.47***	1						
(4) Positive affect	-.17***	-.12*	-.19***	1					
(5) Negative affect	.28***	.24***	.27***	-.15**	1				
(6) Internal conflicts	-.32***	-.29***	-.27***	.04	-.13**	1			
(7) Nonfunctional thoughts about career choice	-.35***	-.26***	-.36***	.22***	-.19**	.53***	1		
(8) Lack of information on career choice	-.42***	-.34***	-.40*	.17***	-.13**	.53***	.68***	1	
(9) Not knowing oneself enough	-.06	-.04	-.07	.03	-.09	.61***	.33***	.26***	1

* $p < .05$, ** $p < .01$, *** $p < .001$

The concurrent validity of the scale was evaluated by examining its relationship with the PANAS and the CDI. At both, the total and factor level of the CDS, was positively correlated with the negative affect subscale of the PANAS; while negatively correlated with the positive affect subscale of the PANAS. These results are also consistent with the literature (Crawford & Henry, 2004; Karim, 2009). According to Affective Events Theory, people with high positive affectivity tend to be lively and sociable while people with negative affectivity tend to be more distressed (Weiss & Cropanzano, 1996).

Moreover, both the total and the factor level of the CDS was negatively correlated with internal conflicts, nonfunctional thoughts about career choice, and lack of information on career choice subscales of the CDI except for the not knowing oneself enough subscale. Specifically, the studies evaluating the relationship between these variables and career distress could not be reached. But it can be concluded that this finding is consistent with the literature. Studies showed that psychological distress is related to internal conflict (King & Emmons, 1990) and irrational beliefs and automatic thoughts (Szentagotai & Freeman, 2007). Occupational knowledge has an important place in every aspect of career development. So, it is understandable that there is a negative relationship between career information and career distress. Sampson, Peterson, Lenz, Reardon, & Saunders (1996) state that an important parameter in making a career decision is psychological stress, as well as the knowledge about oneself and their profession. The absence of a relationship between career distress and the subscale of not knowing oneself can be interpreted as the fact that university students may not see a distressing factor in self-definition or that young people have recognized themselves very well.

To test the reliability of the CDS, internal consistency and item–subscale total correlation values were computed. The results obtained from this sample showed that the CDS demonstrates good reliability (George & Mallery, 2003). When the reliability coefficient for the subscales was evaluated, it was found to be .81 for the negative emotions subscale and .66 for the perceived obstacles subscale. According to George and Mallery's criteria, the negative emotions subscales has good reliability, while the negative emotions subscale has a questionable reliability. On the other hand, reliability coefficients around .60 is an acceptable lower value (Loewenthal, 2001). Hence, additional study should be performed to improve the reliability scores.

The present study has several limitations. First, the sample was randomly selected, but the study data was collected at only one university in Turkey. Therefore, future studies are needed when generalizing from such data. Secondly, making cross validation in scale adaption was suggested (Byrne, 2010), but no cross validation was made in this study. In addition, age and gender of the participants were evaluated in this study. Along with these variables, it is thought that career distress can differ according to other variables such as family status, occupational status and socio-economic status. It is suggested that these variables should be taken into account in future studies. Thus, future studies should investigate the measurement invariance of the CDS across Turkish and Australian samples using structural equation modeling. Lastly, only internal consistency and inter-item

correlations were assessed within the reliability study. Future studies should also investigate the test–retest reliability of the CDS.

In conclusion, the current study presents preliminary findings in support of the measurement of career distress among university students. The Turkish version of the CDS can contribute to the field of career counseling by facilitating the progress of studies on career distress in Turkey. For example, relationship with career distress and social factors such as parents' expectations can be investigated. Also, culturally sensitive studies based on especially comparison of individualist and collectivist cultures can be planned. Moreover, experimental studies can be designed about decreasing career distress among university students.

Appendix

The list of the original, back-translated and Turkish form of the items.

	Original items	Final back-translation	Turkish Form
1	I often feel down or depressed about selecting a career	I often feel unhappy and depressive about a career choice	Kariyer seçimi ile ilgili olarak sıklıkla mutsuz ve depresif hissederim
2	I think that I should make a career decision as soon as possible, but I can't and this makes me anxious	I think I should make a career decision as soon as possible but it worries me not being able to do	Mümkün olan en kısa sürede kariyer kararı vermem gerektiğini düşünüyorum fakat bunu yapamamak beni endişelendirir
3	I feel stress or pressure to select a satisfying career	I feel stressed and under pressure about selecting a satisfying career	Tatmin edici bir kariyer seçmekle ilgili stres ve baskı hissederim
4	I frequently blame myself for something I did or did not do in selecting a career	I often blame myself about the things I've done and I've not done for a career choice	Kariyer seçiminde yaptığım ve yapmadığım şeyler için sıklıkla kendimi suçlarım
5	I tend to smooth over any career problem and pretend it does not exist	I tend to cover up any career problem and pretend it does not exist	Herhangi bir kariyer probleminin üstünü kapatma ve yokmuş gibi davranma eğilimindeyim
6	I often feel that my life lacks much purpose	I often feel that there is no goal in my life	Sıklıkla yaşamımın bir amacı olmadığını hissederim
7	I often hope that problems I have in selecting a career would just disappear	I often hope that the problems about career selection would disappear	Sıklıkla kariyer seçiminde yaşadığım problemlerin ortadan kaybolmasını umut ederim
8	I don't have the special talents to follow my first career choice	I don't have the special talents to continue my first career choice	İlk tercih ettiğim kariyeri devam ettirmemi sağlayacak özel yeteneklere sahip değilim
9	An influential person doesn't approve of my career choice, which is hindering me from seeking that career	If someone important to me doesn't approve of my career choice, I can't seek that career	Önemli biri benim kariyer seçimimi onaylamazsa bu beni kariyer arayışından alıkoyar

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