DEVELOPMENT OF THE CAREER OPTIMISM SCALE FOR UNIVERSITY STUDENTS*

ÜNİVERSİTE ÖĞRENCİLERİ İÇİN KARİYER İYİMSERLİĞİ ÖLÇEĞİ'NİN GELİŞTİRİLMESİ

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Özet: Bu çalışma üniversite öğrencileri için Kariyer İyimserliği Ölçeği (KİÖ) geliştirmeyi amaçlamaktadır. Ölçek maddeleri ilgili literatüre, Türkiye'de ve yurt dışında kullanılan benzer ölçeklere ve öğrencilerle yapılan görüşme sonuçlarına ve uzman görüşlerine dayanmaktadır. Ölçeğin geçerlik ve güvenirliğini incelemek için bazı analizler yapılmıştır. Açımlayıcı faktör analizi (AFA) 339 üniversite öğrencisi verisi üzerinde gerçekleştirilmiş; Kaiser-Meyer-Olkin indeksi .950 ve Bartlett testi anlamlı bulunmuştur. Kariyer Geleceği Envanteri ile KİÖ arasında pozitif yönde, anlamlı ve .79'luk; Kariyer Geleceği Ölçeği'nin kariyer iyimserliği alt ölçeği ile KİÖ arasında da pozitif yönde, anlamlı ve .73'lük bir korelasyon bulunmuştur. Ölçeğin güvenilirliğini tespit etmek için hesaplanan Cronbach Alfa katsayısı .94; ölçeğin üç hafta ara ile katılımcılara uygulanarak incelendiği test-tekrar test güvenirlik katsayısı ise 0.85 bulunmuştur. Ölçeğin geçerlik çalışmaları kapsamında uygulanan doğrulayıcı faktör analizi açımlayıcı faktör analizinin ortaya koyduğu dörtlü faktör yapısı ile iyi uyum göstermiştir. KİÖ 23 maddesi olan, beşli likert tipi ve dört faktörden oluşan bir ölçektir. Bu sonuçlar tartışılmış ve önerilerde bulunulmuştur.

Abstract: This study aimed to develop and validate Career Optimism Scale (COS) for university students. Items were developed based on related literature, similar scales used in and out of Turkey, student interviews and experts' reviews. The evidences of validity and reliability results were tested with certain analyses. One of them was exploratory factor analysis (EFA, N=339) revealed that Kaiser-Meyer-Olkin index was .950 and Bartlett test significant. Convergent validity (N=140) indicated that Pearson correlation coefficients between the Career Futures Inventory (CFI) and COS was .79, and career optimism subscale of CFI and COS was .73. Also Cronbach Alpha was .94, and test-retest reliability (N=50) were .85. In addition, confirmatory factor analysis (CFA, N=295) validated a four-factor structure obtained from EFA. These results presented that COS had adequate psychometric properties of a reliable and valid tool. COS resulted in 23 item, 5 point Likert-type, four sub-factors which constructed as a unidimensional model. In the light of these results, implications and recommendations are discussed.

Anahtar Sözcükler: *Kariyer iyimserliği, ölçek geliştirme, üniversite öğrencileri, faktör analizi*

Keywords: *Career optimism; scale development; university students; factor analysis*

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Introduction

We encounter with the disappearance and rebirth of professions, and transformations of career related tasks and job descriptions due to the advents in technology, globalization, and several unexpected situations such as pandemics and natural disasters that could affect the labor market. These changes may also influence individuals' attitudes towards their future career. Creed, Patton and Bartrum (2002) emphasizes that these challenges affect individuals' happiness as well as their perspective of being optimistic or pessimistic towards their career choices. On the other hand, the global economy, digital revolution, and technological developments have changed the social organization of work. As a result of this new psychological contract between employees and 21st century organizations (Coyle-Shapiro & Parzefall, 2008; Rousseau, 1989), careers have become less structured and predictable, thereby increasing the need for individuals to be more flexible and adaptable (Greenhaus, Callanan & Godshalk, 2009). Because of the growing need for workers to be more self-directed and flexible in managing unrestricted and protean careers (Arthur & Rousseau, 1996), researchers have focused increasingly on the role of relevant psychological capacities such as efficacy, hope, resilience and optimism (Luthans, Avolio, Avey & Norman, 2007). As such, researchers have started to give place to these concepts in career counselling to find ways to help people deal with unforeseen factors that they may face in their career journeys (Seligman, 2006). Thus, in recent years there have been various studies that examine the relationship between optimism and career (Luthans & Youssef, 2007) to determine its role in career life and in the field of career counselling. The concept of career optimism has taken on a central role in these studies as managing a career is more complex, challenging, and ambiguous. Rottinghaus, Day and Borgen (2005) have defined career optimism as the tendency for individuals to expect the best possible outcome or to emphasize the most positive aspects of one's future career development. Thus, it can be said that those who have high career optimism are also optimistic in their aims and expectations; they have a positive attitude towards reaching them as well. Savickas (2002) indicated that the attitudes of planfulness and optimism foster a sense of career concern that helps students to become aware of the vocational development tasks and occupational transitions which they will face in the imminent intermediate, and distant future.

The positive psychology movement has also contributed to the research interest in the construct of optimism (Gable & Haidt, 2005). Simply stated, positive psychology defines optimism having

faith that more good than bad events will occur (Scheier & Carver, 1985). This attitude supports individuals in terms of getting down to work for one's goals and sustaining this work (Creed et al, 2002). In addition, Seligman (2006) claimed that optimism increases feelings of success and satisfaction gained through activities. Along with positive psychology, a positive youth development viewpoint that supports their development and aims to provide them with a sense of empowerment and efficacy has also become prominent (Lerner, 2005). The literature on positive psychology suggests there may be a link between optimism level and achieving success in one's academic and occupational life, as well as being satisfied with one's occupational life and career.

Indeed, the research literature in both vocational and positive psychology support such a link. Optimism plays an important role in determining career goals, being aware of career needs, adapting to new situations and environment, dealing with career obstacles and having optimistic perspective for career future (Creed et al, 2002). Those individual with a positive perspective take active roles in their career/occupational lives and they are open for improvement (Aspinwall & Taylor, 1992; Beever, 2000; Crane & Crane, 2007; Creed et al, 2002; Scheier, Carver & Bridges, 2000). Furthermore, optimistic people are highly motivated to determine their career goals and display greater self-efficacy (Shin, 2010). And they do much more career planning and exploration related to their careers. Moreover, they are more self-confident and encounter fewer difficulties in their career-related decisions (Coon, 2009), show higher levels of self-esteem, and less psychological distress (Creed et al, 2002). Also, they can deal with difficulties instead of seeing them as threats, and consider them as situations or opportunities that can contribute to their career success (Chemers, Hu & Garcia, 2001). Optimism is a teachable concept that contributes to personal development and enables one to meaningfully participate in activities (Seligman, 2006). Since the studies on career optimism have gained momentum in recent years, there is not enough research that could enrich the knowledge on the issue (Gunkel, Schaegel, Langella & Peluchette, 2010). As these studies increase in number, the theoretical basis will be stronger and more comprehensive.

Although the research literature shows links between career optimism and vocational behaviors, this research has been using a variety of optimism inventories that were not originally intended to measure *career optimism*. The more common measures are *The Career Futures Inventory* (CFI, Rottinghaus et al, 2005), and the *Life Orientation Test* (LOT, Scheier & Carver, 1987). Probably

the best currently available measure is the revised form of *The Career Futures Inventory* (CFI-R; Rottinghaus, Buelow, Matyia, & Schneider, 2012). The 28-item CFI-R includes five internally consistent subscales: career agency, occupational awareness, support, work–life balance, and negative career outlook. Changes from the original CFI include a measure of career agency, including content addressing self-awareness, control, and self-efficacy for managing career transitions; and measures of relational components. The CFI-R scores relate to dispositional optimism and coping styles. Although not a direct measure of career optimism, *The Future Work Self Inventory (FWSI)* developed by Strauss, Griffin and Parker (2012) seems strongly related to career optimism. It consists of five items that measure the salient future work selves of the participants. Sample items include "The future is very easy for me to imagine," "I can easily imagine my future work self," and "I am very clear about who and what I want to become in the future work." Higher scores indicate participants thought that their future work self was clear and easy to imagine. Additionally, *The Career Adaptability and Optimism Scale* (CAOS, Erdogmus Zorver & Korkut Owen, 2014) was developed in Turkish culture for the individuals who make transition from school to work. CAOS represents unidimensional model with 18 items. Sample items include "I have a plan for my career development", "My career is under my control", and "I am eager to chase my career dreams." While *CFI*, *FWSI* and *CAOS* are quite useful and strongly related to career optimism, they are not direct measures of the construct. Given the lack of a homogeneous measure, the studies on career optimism are limited in terms of construct validity. There is a need to have valid and reliable scale which only focuses on measuring the concept of career optimism in Turkish context.

University students in Turkey face many problems with the uncertainty of whether they will find a suitable and well-paid job, being unsure of their career decisions (Gizir, 2005), and feeling hopeless and anxious about their future (Yazici, 2003). Additionally, unemployment is a major problem in Turkey, which effect 24.3% of young people, and 14.2% whom are graduates (Turkish Statistical Institute, 2020). This serious rate suggests that many university students will encounter challenging and competitive experiences and this may contribute to negative mindset and feelings towards their future. Furthermore, career scholars emphasize that career optimism is learnable and teachable (Peters, Flink, Boersma & Linton, 2010; Savickas, 2013). Being able to measure such a term, it can provide an opportunity to help individuals to learn and develop this positive attitude which they can utilize lifelong. Additionally, it is thought that this scale will

assist and facilitate counselors, career counselors and researchers to identify individuals' career optimism. The goal of the present study was to construct a measure of career optimism and provide initial evidence for the validity of its scores.

Method

Participants

All participants are university students from the faculties and various classes of Hacettepe University in Ankara, Turkey. The first pilot test of the item pool was carried out with 81 university students. Then, a trial form of the scale was prepared, which was then applied to 160 university students. Exploratory Factor Analysis (EFA) was done with data obtained from 339 university students (238 female and 101 male; $M_{age} = 22.17$, $SD = 1.37$). COS and CFI were applied to 140 university students (99 female and 41 male; $M_{age} = 22.84$, $SD = 1.37$) to determine the convergent validity. For test-retest analysis, another application was done with 50 university students (36 female and 14 male; $M_{age} = 21.76$, $SD = 2.04$). Additionally, new data collected from 295 university students (221 female and 74 male) to run Confirmatory Factor Analysis (CFA) for another construct validity. A total of 1,065 university students participated to this study.

Measures

The Career Futures Inventory (CFI). The scale (Rottinghaus et al, 2005) measures career planning attitudes. The CFI has 21 items which are divided into three dimensions, namely career adaptability (CA), career optimism (CO) and perceived knowledge of job market (PK), and 25 items. The CFI uses a 5-point scale ranging from Strongly disagree (1) to Strongly agree (5). Example items from CA measures personal adaptability (e.g., I can adapt to change in the world of work); CO measures career identity (e.g. I am eager to pursue my career dreams); PK measures social and human capital in terms of reflective self-awareness and the requirements in the labor market (e.g., I am good at understanding the job market trends) (McIlveen, Burton & Gavin, 2013).

Turkish adaptation of the CFI was carried out by Kalafat (2012) with the participation of 555 university students. Turkish version of the scale also has three sub factors, namely career adaptability (CA), career optimism (CO), and perceived knowledge on labor market (PK); and

consists of 25 items same as the original version of the scale. Item distinctiveness and confirmatory factor analysis results showed that the scale's three-factor structure is appropriate for the Turkish sample. Internal consistency analysis values were found to be 0.83 for CA, 0.83 for CO, 0.62 for PK, and 0.88 for total score. Thus, it was decided that the scale is a reliable and valid tool that can be used in Turkish context.

Career Optimism Scale (COS). The scale contains 23 items and it is regarded as unidimensional. The unidimensional model specified one general factor and four sub-factors. The response scale ranged from strongly disagree (1) to strongly agree (5). The minimum score on the scale is 23 while the maximum score is 115. Obtaining high score from COS means high career optimism.

Item Development

To generate an item pool, first of all literature concerning concepts which can be confused with career optimism and related (e.g., hope and future orientation) was reviewed in order to clearly distinguish and develop a conceptual definition of the construct of career optimism. Secondly, measures related to career optimism (e.g., The Career Futures Inventory and Life Orientation Test) were also examined in order to identify items which may measure career optimism or general optimism. Some of the items in these scales were placed in the item pool using the exact same wording while others were slightly modified. Lastly, 25 university students were asked to define what career optimism means to them and to state the characteristics of people with high and with low career optimism. Several items were generated based on the students' responses. In the end, the item pool consisting of 46 items. These items were submitted for evaluation to a group of 10 experts in the fields of Psychological Counseling and Guidance, and of Assessment and Evaluation. They evaluated the items according to suitability for the measurement of career optimism and for clarity in terms of language. Experts judged each item as "suitable", "should be corrected" or "not suitable". In addition, they shared their opinions and suggestions for revising certain items. Based on the experts' feedback, we removed seven items from the pool. Thus 39 items remained in pool for pilot testing. The first pilot scale was administered to 81 university students (52 female, 29 male) who responded to the items on Likert-type scale using "strongly agree", "agree", "neutral", "disagree", and "strongly disagree. They also suggested revisions for items which they found to be unclear. Based on the results, two items were removed from the

scale because students found them to be unclear. Therefore, 37 items remained in the scale. EFA was performed after forming the item pool.

Procedure

Necessary permissions for the study were received from the ethical commission of the Hacettepe University (March 13, 2014; 88600825/433-971). We met with instructors in advance and agreed on the appropriate day and time for administering the scale. The purpose and importance of the study, participants' rights and instructions on filling the scale were explained to students before the application and students were informed that their responses stay anonymous. Participants signed a "consent form" for their participation voluntarily.

Data Analysis

In the analysis of data obtained in the study, SPSS 21.0 was used. EFA and convergent validity test were used to measure construct validity, and Cronbach Alpha coefficient and test-retest reliability analyses were used for reliability studies. Also, CFA was used to validate the factor structure of what EFA presented by utilizing LISREL 8.80 software package (Joreskog & Sörbom, 1993). For model fit criteria, the following indices were used: the root mean square error of approximation (RMSEA)<.10, comparative fit index (CFI)>.95, normed fit index (NFI)>.95, standardized root mean square residual (SRMR) <.08, the ratio of chi-square value to degrees of freedom ($\chi2/df$) less than five (Hu & Bentler, 1999; Schumacker & Lomax, 1996; Kline, 2005).

Results

Factor Structure

EFA was applied to examine the factor structure of Career Optimism Scale. Scale was administered to 339 students. First, the data were examined in order to find out whether the data is applicable for factor analysis. In order to be applicable for factor analysis, Kaiser-Meyer-Olkin (KMO) index should be over .60 and Bartlett test should be significant (p<0.001) (Büyüköztürk, 2013). KMO index was found as .950 and Bartlett test was significant which were applicable for the analysis. Then, EFA was conducted to examine the construct validity and factor structure of COS. It was observed that common factor variances of the factors on each variable vary

between .46 and .79. According to literature, factor load value of items being .45 or higher indicates a good criterion for selection; however, limit value is .30 for low number of items in applications (Kline, 1994; Büyüköztürk, 2013). There is not any item whose factor loadings is under .45 in COS. In the eigenvalue and variant findings of the scale, it was determined that it was composed of 6 factors with the eigenvalue of 1 and bigger than 1. These factors accounted for 58,89% of the total variance. It was seen that eigenvalue of the first factor accounted for 38,72% of the total variance; the second eigenvalue accounted for 5,94% of the total variance; and the third accounted for 4,38% of it, and so on. After these procedures, factor loads of items which have correlations with factors were examined to determine which item measured which factor, to make it easy to decide on the number of factors. After examining factor loads, 14 items were taken out of the scale as they had factor load values lower than .30, their factor loads values close to one another in different factors, they had low distinctive value, or they gave low correlation with other items in the scale. After this, COS resulted in 23 items, and exploratory factor analysis was repeated for this final version.

In the repeated analyses, data's appropriateness for factor analysis was examined first. After the KMO statistics performed to see whether the number of data is enough for factor analysis, KMO coefficient indicated .948 and Barlett test was significant. This finding showed that data were appropriate for factor analysis. EFA extracted four factors with eigenvalue greater than one. The factors accounted for 60% of the total variance. The first factor appeared to be a general factor. It accounted for more than half of the common variance. These factors accounted for 44.2%, 7.2%, 4.5%, and 4.4% of the total variance, respectively. As shown in scree plot in *Figure 1*, it is evident that break in the line graphics occurred after the fourth factor and COS has a general factor in addition to having four factors (Lord, 1980). Factor loadings of the first factor was found between .566 and .771. There was no item loaded below .30.
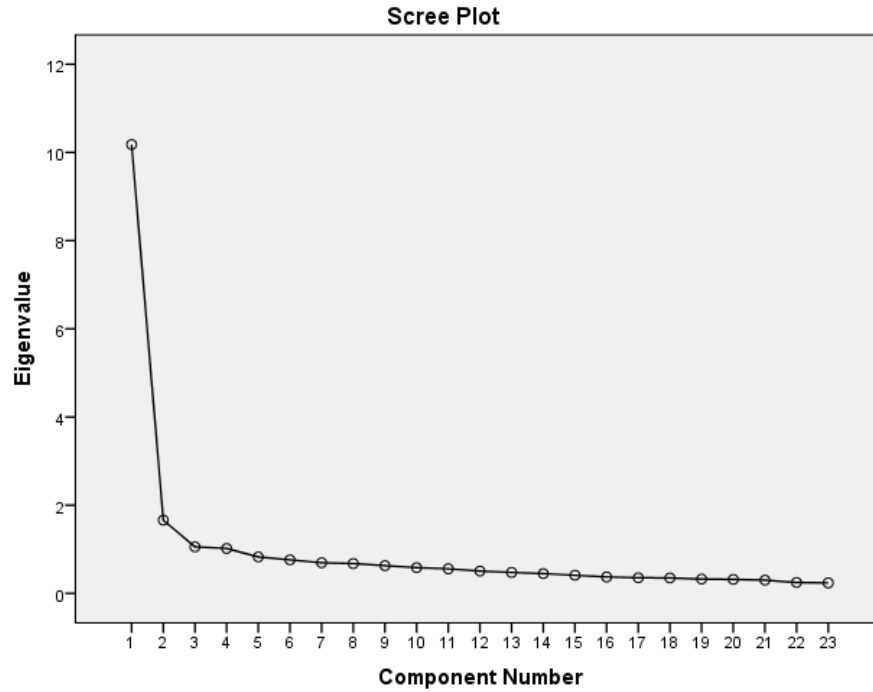
Figure 1: Scree plot

With the Varimax rotation technic, it was determined that the first factor consists of 9 items (15, 16, 17, 18, 19, 20, 21, 22, 23), the second factor consists of 6 items (1, 2, 3, 4, 5, 6), the third factor consists of 5 items (10, 11, 12, 13, 14) and the fourth factor consists of 3 items (7, 8, 9). Factor analysis results concerning COS are presented in Table 1.

Table 1

Factor Analysis Results of Career Optimism Scale

Item No	Common Factor Variance	Item No	Factor-1 Loading	Item No	Factor Loading After Varimax Rotation			
					F1	F2	F3	F4
1	.486	11	.771	22	.761			
2	.543	16	.738	21	.723			
3	.620	14	.734	20	.648			
4	.665	6	.728	23	.642			
5	.468	12	.724	17	.594			
6	.638	7	.718	18	.592			
7	.657	20	.715	15	.570			
8	.797	17	.675	16	.568			
9	.710	19	.670	19	.524			
10	.580	10	.661	4		.711		
11	.662	4	.655	3		.701		
12	.751	23	.655	6		.659		
13	.501	15	.650	2		.621		
14	.630	3	.645	1		.570		
15	.536	22	.635	5		.549		
16	.592	18	.632	12			.768	
17	.580	9	.632	10			.641	
18	.522	5	.628	13			.618	
20	.643	1	.627	14			.580	
21	.601	2	.606	11			.579	
22	.673	13	.596	8				.855
23	.572	21	.590	9				.724
19	.487	8	.566	7				.580

Variance Explained: Total: %60,506; Factor-1: %44,259; Factor-2: %7,222; Factor-3: %4,592; Factor-4: %4,433

Item contents were examined, and each factor was named separately. The first factor in which contains the sample item "I believe that I will make reasonable choices in my career," was called "career future self-efficacy beliefs (CFSEB)" due to its emphasizes on one's belief concerning their career future behaviors; the second factor which contains the sample item "I believe I will navigate my career best under the conditions I have" is called "self-confidence (SC)" since it is about one's belief in capabilities to deal with something positive or negative. Third factor is called "career goals motivation (CGM)" because it has the sample item "I am eager to achieve

my career goals" which points out one's motivation towards reaching their career goal. Finally, the fourth factor which contains the sample item "I am hopeful that I will find a job in the future", and represents one's belief in promising and hopeful career future which is called "hope (H)".

The convergent validity was tested in this study too. The correlation between COS and CFI; COS and career optimism subscale of CFI were examined. According to Cohen (1988), if the correlation coefficient is between $r=0.01-0.29$ it is low; between $r=0.30-0.49$ it is medium and between $r=0.50-1$ it is high. It was determined that there is a positive, significant and at .79 value relation between CFI and COS, and .73 value correlation between career optimism subscale and COS.

In addition to construct validity analysis in this study, CFA was applied in order to confirm the four-factor structure of the COS. The evidence of CFA revealed a good fit of the four-factor structure of the COS which was indicated by EFA. The fit indexes were RMSEA=.087, CFI=.97, NFI=.95, SRMR=.058, $\chi^2(224)=716.91$ (CI 415.76-577.66), $\chi^2/df=3.20$ (see *Figure 2*).
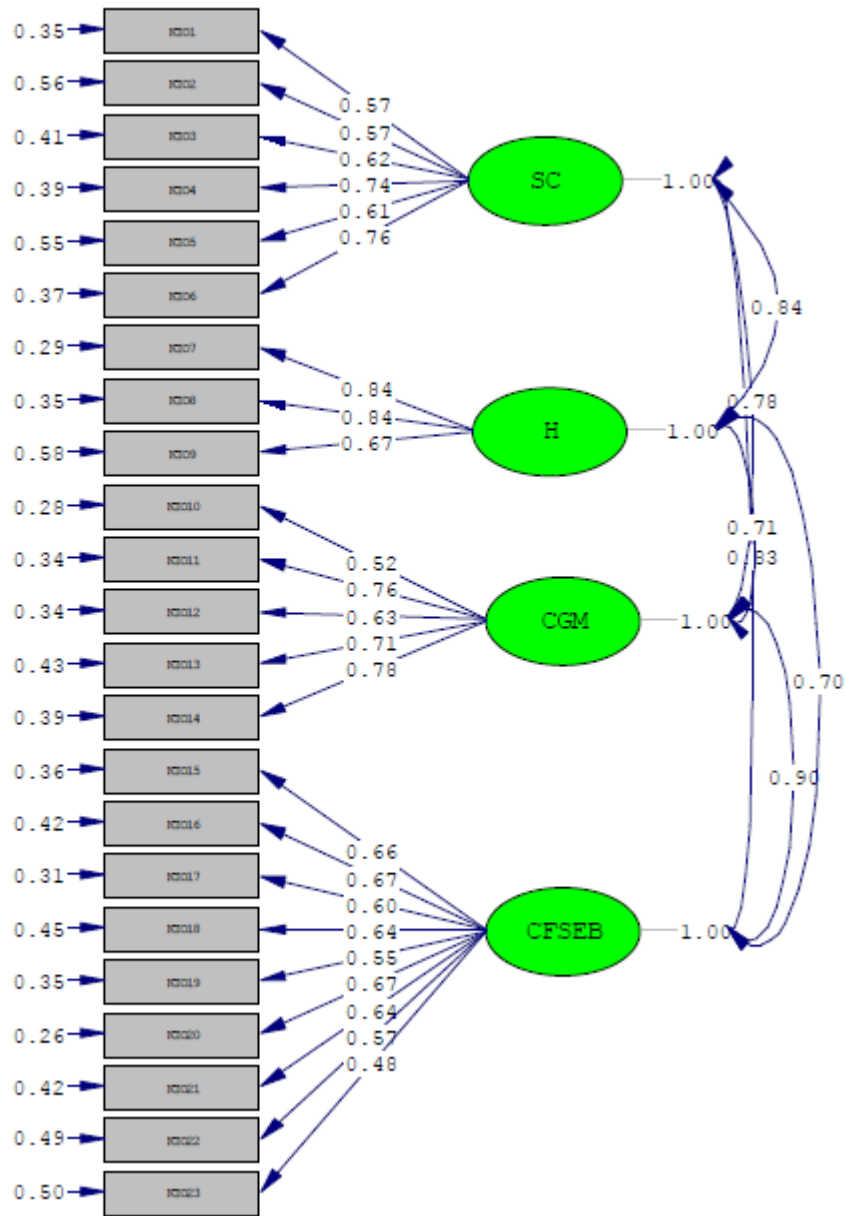
Figure 2: CFA model for Career Optimism Scale

The factor loadings estimate for all items related to their factors were found statistically significant (p<.01) (see table 2). The factor loadings were obtained between 0.48-0.84 range. The loadings are between 0.57-0.76 for the self-confidence (SC) factor, 0.67-0.84 for the hope (H) factor, 0.52-0.78 for the career goals motivation (CGM) factor and 0.48-0.67 for the career future

self-efficacy beliefs (CFSEB) factor. Table 2 shows regression analysis for factor loadings and the correlations between factors as CFA results. Hence, correlation between all factors were found statistically significant (p<.01). All factors were highly and positively correlated each other.

Table 2

Summary of Regression Analysis and Correlations Between Factors

	Factor Loadings Range	CFSEB	SC	CGM	H
SEB	(0.48-0.84)**				
SC	(0.57-0.76)**	0.83**			
CGM	(0.48-0.67)**	0.90**	0.78**		
H	(0.67-0.84)**	0.70**	0.84**	0.71**	

**p<.01

Reliability Analysis

In order to determine the reliability of COS, Alpha reliability coefficient of COS was found as .94. According to literature, if the reliability coefficient of Cronbach Alpha is .70 and above, then it is sufficient for reliability in general terms (Nunnally & Bernstein, 1994). Secondly, test-retest reliability was analyzed among 50 students (36 female, 14 male), two times with three weeks break. The test-retest reliability coefficient was calculated as .85. As a result of the correlation, the test-retest reliability of the scale is high and the scale provides steady results (Murphy & Davidshofer, 1991).

Discussion

This study aimed to develop a scale for a construct which can be seen as abstract and unobservable. In order to make this construct more observable and to be able to measure, we followed certain principles to create COS. These principles are aligned with Tay and Jebb's (2017) recommendations on best approaches on scale creation. One of the principle that we paid

attention was to decide the purpose and the target group of the scale which provide us a specific focus that guide us through gathering information about the construct and generating items. The other principle was to generate items which sufficiently represent the construct. For this purpose, related literature was reviewed thoroughly and interviews with the target group "university students" were conducted in order to have a clear conceptualization as well as to identify how broad the construct is. Also, few items from CFI and CAOS selected, especially as the CAOS (Erdogmus Zorver & Korkut Owen, 2014) was developed for Turkish context and revealed promising reliability and validity evidence. This process was continued with creating the initial item pool and submitting it to the experts for their evaluations. Then, the item pool was applied as a pilot testing to observe the target group's interpretations to the items. We believe that all of these principles might contribute to the result in our study which indicates that COS is a reliable and valid instrument.

Result of validity indicated four-factor structure which we called "career future self-efficacy beliefs" (I believe I will make logical choices in my career), "self-confidence" (I make the right decisions about my career), "career goals motivation" (I believe that I will advance and move up in my profession in the future) and "hope" (I am hopeful that I will find a job in the future) as demonstrated by unidimensional model. These sub-factors can be supported by the studies which highlighted that career optimism is in relationship with personality and emotional factors, individual beliefs and goals, contextual support and barriers, cultural variables, career adaptability and career decision making self-efficacy and protean career orientation (Chui et al, 2020; Eva Newman, Jiang, & Brouwer, 2020). For example, concept of hope is defined by Snyder et al. (1991) that is "a cognitive mindset that is based on reciprocally derived sense of successful agency (goal-directed determination) and pathways (planning of ways to meet goals)." When we compare both concepts "hope and optimism", hope is more related with actions, and optimism is more about belief. At this point, the factor of hope in the construct of career optimism can be investigated to understand the limit of both concepts' connectivity to each other. This evidence may be interpreted that career optimism among university students in Turkish context is formed by these four factors which can provide insight to career scholars and practitioners in order to work with this construct from a less abstract viewpoint as well as enable to conceptualize broader and deeper.

Limitations and Recommendations

This study has some limitations. Data was collected by self-report method which may bring limitations. Dodorico McDonald (2008) pointed that self-report method has disadvantages such as responding socially desirable, acquiescent and extreme, response bias, interpreting the questions etc. She suggested to measure and to control response biases with specially-designed scales. In future researches can focus on utilizing other data collecting methods such as behavioral or relational measures as well as developing tailored scales in order to eliminate these limitations.

Our study was carried out with university students who were at one of the selected university. Thus, the results can only be generalized to the similar population. We can suggest that future studies investigate COS' reliability and validity on different profiles such as students of other universities, graduates, individuals who experience career transition who are inside or outside of the country. In this study, since determining the optimism level of university students who are in the transition to working life was considered important, the career optimism scale was developed for university students. As career optimism is accepted as a learnable feature, it may be suggested to determine the validity and reliability of the scale for high school students / youths. On the other hand, it would be significant to develop a separate career optimism scale for youngsters. Therefore, relevant scales can be used in efforts to gain career optimism at an early age. Working with individuals who are not from Turkish context can contribute on cross-cultural equivalence of the scale which may result in richer evidence for the scales' psychometric properties and applicability.

In addition, we operationalized career optimism and generated the items for COS based on the limited literature. Thus, researchers in the future may pay attention to this flourishing construct's literature to revise the items of COS. At the same time, four-factor structure which is constructed in unidimensional model of COS that we found in this study can be examined to identify whether these factors are developable. If so, researchers and practitioners may establish trainings,

workshops, psycho-educational programs and individual or group treatments to promote these components to improve career optimism as well as positive vocational attitudes and behaviors.

Conclusion

The evidence of findings indicated that COS is a reliable and valid tool for measuring university students' career optimism in Turkish context. It has a response system of 5 point Likert type and 23-items. It can be confidently and effectively used for researchers who explore dynamics of career optimism and individuals' attitude, and their regulations while chasing their career goals. Also, COS can be a useful tool for practitioners who care to promote this construct in order to support individuals to deal with their lives and career life's ambiguity and challenges. We hope that this study will rekindle individuals' inner source to connect with their optimism to adjust to changing career landscapes, and to have meaningful and fulfilling life.

Acknowledgment

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Uzun Özet

Pozitif psikolojinin kavramlarından biri olan iyimserlik, 1970'lerin sonlarına kadar çocukluk ve karakter zayıflığını simgeleyen psikolojik bir sorun olarak görülmüştür, fakat pozitif psikoloji kapsamında iyimserlikten, kişilerin durum ve olayların olumlu yönlerine odaklanmalarına yardımcı bir kavram olarak söz edilmektedir. (Gable ve Haidt, 2005). Günümüzdeki çalışmalar incelendiğinde, iyimserlik kavramına olan ilginin olumlu yönde giderek arttığı gözlemlenebilir. Literatürde iyimserlik kavramını kariyer danışmanlığı çerçevesinde ele alan kuramsal bilgi oldukça sınırlı olmasına rağmen pozitif psikoloji ve kariyer danışmanlığı arasında bağ olduğu rapor edilmektedir. İyimserlik, kariyer amaçlarının ve ihtiyaçlarının belirlenmesi, yeni koşul ve

çevrelere uyum sağlanması ve kariyer geleceğine yönelik iyimser bir bakış açısına sahip olmada önemli bir rol oynamaktadır (Creed et al, 2002). Söz konusu olumlu bakış açısına sahip bireyler kariyer yaşamlarında aktif roller almakta ve gelişime daha açık olmaktadırlar (Aspinwall & Taylor, 1992; Beever, 2000; Crane & Crane, 2007; Creed et al, 2002; Scheier, Carver & Bridges, 2000).

Kariyer iyimserliği, kariyer planına ilişkin beklentilerin gerçeklemesinin zor gibi görünmesine rağmen kişinin kariyer geleceğine ilişkin olumlu bir bakış açısına sahip olması ve buna bağlı olarak hedeflerini gerçekleştirmeye yönelik çaba içinde olması (Scheier ve Carver, 1987) şeklinde tanımlanmaktadır. Savickas (2002), planlı ve iyimser olma tutumlarının kariyer hakkında düşünme eğilimini geliştirdiğini; bu tutumların olması yakın ve uzak gelecekte öğrencilerin karşılaşacakları mesleki görevler ve meslek/işle ilgili geçişlerin farkında olmalarına yardım ettiğini belirtmektedir. Bu anlamda son yıllardaki araştırmalarda kariyer iyimserliğine daha fazla yer verilmeye başlanmıştır. Araştırmalar incelendiğinde kariyer iyimserliğini ölçmek amacıyla Kariyer Geleceği Ölçeği (KARGEL, Rottinghaus et al, 2005), Yaşam Yönelimi Testi'nin (Scheier & Carver, 1987) ve Kariyer Uyumu ve İyimserliği Ölçeği (Erdoğmuş Zorver & Korkut Owen, 2015) sıklıkla kullanıldığı görülmektedir. Bu ölçme araçlarının farklı kavramları ölçen alt boyutlarının olması ve genel boyut olarak doğrudan kariyer iyimserliğini ölçmediği için Türk kültüründe sadece kariyer iyimserliğini ölçmeye odaklanan geçerli ve güvenilir bir araca ihtiyaç duyulmaktadır. Bu araştırma kapsamında hem bu ihtiyacı gidermek hem de kariyer iyimserliğinin öğrenilebilen ve öğretilebilen bir yapısının (Peters, Flink, Boersma & Linton, 2010; Savickas, 2013) olmasıyla üniversite döneminde kariyerlerini yapılandırma aşamasında çeşitli güçlüklerle karşılaşan öğrencilere araştırmalar ve uygulamalarla yardımcı olmak için kariyer iyimserliği ölçen bir araç geliştirilmesi amaçlanmıştır.

Kariyer İyimserliği Ölçeği'nin (KİÖ) geliştirilmesi kapsamında araştırmaya Hacettepe Üniversitesi'nde eğitim gören toplam 1,065 öğrenci katılmıştır. Madde havuzunun oluşturulmasında 81, ölçeğin deneme uygulamasında 160, Açımlayıcı Faktör Analizi'nde 339 (238 kadın, 101 erkek; $M_{yaş}$ = 22.17, SD = 1.37), benzer ölçekler geçerliğinde 140 (99 kadın, 41 erkek; $M_{yaş}$ = 22.84, SD = 1.37), test tekrar test geçerliği için 50 (36 yaş, 14 erkek; $M_{yaş}$ = 21.76, SD = 2.04) ve son olarak Doğrulayıcı Faktör Analizi için 295 öğrenciden (221 kadın, 74 erkek) yararlanılmıştır. Araştırmada benzer ölçekler geçerliğini test etmek için Rottinghaus ve ark.

(2005) tarafından geliştirilen Kalafat (2012) tarafından Türkçeye uyarlanan Kariyer Geleceği Ölçeği (KARGEL) kullanılmıştır. Uyarlama çalışmaları ölçeğin orijinal yapısındaki üç faktörlü yapıyı koruduğunu ve iç tutarlılık analizlerinin her bir faktör için 0.83, 0.62 ve 0.88 şeklinde olduğunu göstermiştir.

KİÖ'nün geçerlik ve güvenirlik çalışmaları için Açımlayıcı Faktör Analizi (AFA) ve benzer ölçekler geçerliği ile Cronbach Alfa katsayısı ve test tekrar test güvenirliği incelenmiştir. AFA sonuçlarına göre KMO katsayısı .948 ve Barlett testi anlamlı bulunmuştur. Faktörlerin her bir değişken üzerindeki ortak faktör varyansının .46 ile .79 arasında değiştiği görülmüştür. Faktör analizinde ölçeğin, özdeğeri 1 ya da 1'den büyük 4 faktörünün olduğu, bunun yanı sıra genel bir faktöre de sahip olduğu tespit edilmiştir. KİÖ, toplam varyansın %60'ını açıklamaktadır. Ölçeğin geçerliğini ölçmek üzere kullanılan bir diğer yöntem olan benzer ölçekler geçerliği çerçevesinde KARGEL ve bu ölçeğin bir alt ölçeği olan kariyer iyimserliğinden yararlanılmıştır. KARGEL ile KİÖ arasında pozitif yönde, anlamlı ve .79'luk; kariyer iyimserliği alt ölçeği ile KİÖ arasında da pozitif yönde, anlamlı ve .73'lük bir korelasyon bulunmuştur. Bunlara ek olarak, ölçeğin geçerlik çalışmaları kapsamında uygulanan Doğrulayıcı Faktör Analizi (DFA), AFA'nın ortaya koyduğu dörtlü faktör yapısı ile iyi uyum göstermiştir. Uyum indeksleri RMSEA=.087, CFI=.97, NFI=.95, SRMR=.058, $\chi 2(224)=716.91$ (CI 415.76-577.66), $\chi 2/df=3.20$.

Ölçeğin güvenilirliğini tespit etmek için hesaplanan Cronbach Alfa .94; KİÖ'nün üç hafta ara ile katılımcılara uygulanarak incelendiği test-tekrar test güvenirlik katsayısı da 0.851 olarak hesaplanmıştır. Elde edilen tüm bu kanıtlar KİÖ'nün geçerli ve güvenilir bir ölçek olduğunu ortaya koyduğu söylenebilir.

Üniversite öğrencilerinin kariyer iyimserliğini ölçmek amacıyla Türk kültürüne uygun bir ölçek geliştirmek amacıyla yapılan bu çalışma kapsamında KİÖ'nün geçerlik ve güvenirlik çalışmaları farklı yöntemlerle test edilmiştir. Bu yöntemler sonucunda elde edilen bulgular, ölçeğin geçerli ve güvenilir bir ölçek olarak araştırmacılar ve uygulamacılar tarafından kullanılabileceğini ortaya koymaktadır. KİÖ, 23 maddeden oluşmakta ve ölçeğin tüm maddeleri düz puanlanmaktadır. Ölçek, beşli derecelendirmeli (5=Bana tamamen uygun, 4=Bana uygun, 3=Kısmen uygun, 2=Bana uygun değil, 1=Bana hiç uygun değil) yanıtlama sistemine sahiptir. Ölçekten alınabilecek puan 23 ile 115 arasında değişmekte; alınan yüksek puan, bireyin kariyer iyimserliğinin yüksek olduğu anlamına gelmektedir. Gelecekteki çalışmalarda KİÖ'nün norm

çalışmaları yapılabilir ve farklı çalışma gruplarındaki geçerlik ve güvenirlik değerleri incelenerek gerekiyorsa ölçeğin revizyonu yapılabilir ya da farklı gruplar için olan farklı formları oluşturulabilir.

ETİK BEYAN: "Development of the Career Optimism Scale for University Students" başlıklı çalışmanın yazım sürecinde bilimsel, etik ve alıntı kurallarına uyulmuş; toplanan veriler üzerinde herhangi bir tahrifat yapılmamıştır ve veriler toplanmadan önce Hacettepe Üniversitesi Etik Komisyonu'ndan 13 Mart 2014 tarih ve 88600825/433-971 sayılı etik izin alınmıştır. Karşılaşılacak tüm etik ihlallerde "Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi Yayın Kurulunun" hiçbir sorumluluğunun olmadığı, tüm sorumluluğun Sorumlu Yazara ait olduğu ve bu çalışmanın herhangi başka bir akademik yayın ortamına değerlendirme için gönderilmemiş olduğunu taahhüt ederim.