TESTING A MODEL OF CAREER INDECISION AMONG UNIVERSITY STUDENTS BASED ON SOCIAL COGNITIVE CAREER THEORY

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Approval of the Graduate School of Social Sciences

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ABSTRACT

TESTING A MODEL OF CAREER INDECISION AMONG UNIVERSITY STUDENTS BASED ON SOCIAL COGNITIVE CAREER THEORY

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The aim of the current study is to investigate the some potential factors that contribute to career indecision of university students. In accordance with that, a mediational causal model based on Social Cognitive Career Theory (SCCT) was proposed to test; a) the direct and indirect relationships of locus of control, perceived parental attitudes, career decision-making self-efficacy, and career outcome expectations with career indecision and b) to what extend the combination of these variables explain career indecision. The sample of the study was composed of 723 (338 female, 383 male, 2 unspecified) university students. Demographic Information Form, Career Decision Scale, Career Decision Self-Efficacy Scale Short-Form, Career Outcome Expectations Scale, Parental Attitudes Scale, and Rotter's Internal-External Locus of Control Scale were used to collect data. Pilot studies were

conducted for assessing the psychometric properties of the Turkish version of Career Decision Scale, Career Decision Self-Efficacy Scale Short Form, and Career Outcome Expectations Scale. Path analysis was utilized to identify whether the proposed model of career indecision fit the data.

Results indicated four nonsignificant paths. Therefore, the proposed model was trimmed by eliminating the nonsignificant paths and adding a new path. Accordingly, findings revealed that career indecision was negatively predicted from career decision-making self-efficacy, perceived parental psychological autonomy, and positively predicted from locus of control and career outcome expectations. Additionally, locus of control, perceived parental acceptance/ involvement, perceived parental psychological autonomy, and career decision-making self-efficacy were indirectly related to career indecision. Overall, the trimmed model supported SCCT and accounted for 32% of the variance in career indecision.

Keywords: Career Indecision, Career Decision-making Self-efficacy, Career Outcome Expectations, Social Cognitive Career Theory

ÖZ

SOSYAL BİLİŞSEL KARİYER KURAMINA DAYALI BİR KARİYER KARARSIZLIĞI MODELİNİN ÜNİVERSİTE ÖĞRENCİLERİNDE SINANMASI

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Bu çalışmanın amacı, üniversite öğrencilerinin kariyer kararsızlığını etkileyen bazı olası faktörleri incelemektir. Bu doğrultuda, kontrol odağı, algılanan anne baba tutumu, kariyer karar verme öz-yeterliği ve kariyer sonuç beklentileri ile kariyer kararsızlığı arasındaki doğrudan ve dolaylı ilişkileri sınamak amacıyla; a) Sosyal Bilişsel Kariyer Kuramı'na (SBKK) dayalı ara değişkenli nedensel bir model önerilmiş ve b) tüm bu değişkenlerin birleşiminin kariyer kararsızlığını ne ölçüde açıkladığı sınanmıştır. Araştırmanın örneklemini, 723 (338 kız, 383 erkek, 2 belirtilmemiş) lisans öğrencisi oluşmuştur. Bu çalışmada, Kişisel Bilgi Formu, Kariyer Karar Ölçeği, Kariyer Kararı Öz-Yeterlik Ölçeği Kısa Formu, Kariyer Sonuç Beklentileri Ölçeği, Anne-Baba Tutum Ölçeği ve Rotter'ın İç-Dış Kontrol Odağı Ölçeği veri toplama aracı olarak kullanılmıştır. Kariyer Karar Ölçeği, Kariyer Kararı

Öz-Yeterlik Ölçeği Kısa Formu, Kariyer Sonuç Beklentileri Ölçeği'nin Türkçe formlarının psikometrik özelliklerini değerlendirmek amacıyla pilot çalışmalar yapılmıştır. Önerilen kariyer kararsızlık modelininin elde edilen veriye uyup uymadığını belirlemek için yol analizi kullanılmıştır.

Yol analizinin sonuçları önerilen modeldeki dört yolun anlamlı olmadığını göstermiştir. Bu nedenle, anlamlı olmayan yollar önerilen modelden çıkarılmış ve yeni bir yol eklenerek model tekrar düzenlenmiştir. Buna göre, bulgular kariyer karar verme öz-yeterliğinin ve algılanan anne-baba psikolojik özerkliğinin, kariyer kararsızlığını olumsuz yönde; kontrol odağı ile kariyer sonuç beklentilerinin ise olumlu yönde yordadığını göstermiştir. Ayrıca, kontrol odağı, algılanan anne-baba kabul/ ilgi tutumu, algılanan anne-baba psikolojik özerkliği tutumu ve kariyer karar verme öz-yeterliği, kariyer kararsızlığı ile dolaylı olarak ilişkilidir. Sonuç olarak, yeniden düzenlenen model Sosyal Bilişsel Kariyer Kuramını desteklemekte ve kariyer kararsızlığına ilişkin varyansın %32'sini açıklamaktadır.

Anahtar Kelimeler: Kariyer Kararsızlığı, Kariyer Karar Verme Öz-Yeterliği, Kariyer Sonuç Beklentileri, Sosyal Bilişsel Kariyer Kuramı

To my mother, who instilled in me the value of an education &

To my father, who taught me to work hard and be persevering &

To my husband, who shares the life with me

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INTRODUCTION

Alice: Would you tell me, please, which way I ought to walk from here?
The cat: That depends a good deal on where you want to get to
Alice: I don't much care where...
The cat: Then it doesn't matter which way you walk!
...
Lewis Carroll, Alice in Wonderland.

1.1 Background to the Study

Career decision making is one of the significant and inevitable tasks of life. In this regard, university years, when students have to make decisions regarding employment and further education are crucial with respect to career decision-making process. However, for many young people, making a career decision can be a difficult and confusing task (Gati, Krausz, & Osipow, 1996) that has lifelong consequences for the individual's vocational future, psychological and physical well-being, social acceptance, hence, overall quality of life (Mann, Harmoni, & Power, 1989). Accordingly, career indecision is one of the common presenting problems for students seeking counseling at most university counseling centers (Kelly & Pulver, 2003; Taylor, 1982). Specifically, from twenty to sixty percent of university students were found to experience career indecision (e.g., Gordon, 1995).

Career indecision has been viewed as one of the vital and central topics of career psychology, which has captured the attention of many researchers due to its financial and psychological costs (Betz, 1992; Osipow, 1999). The term career indecision has been widely used with reference to problems related to career development, particularly problems in making career-related decisions. Career indecision is viewed as a developmental problem within the career maturation process "that results from a lack of information about self or the world of work" (Chartrand, Martin, Robbins, & McAuliffe, 1994, p. 55). Hawkins-Breaux (2004) makes the general definition of the construct as "point in the career development process when individual must take action on a course or direction for the future, and for any number of reasons, he or she cannot move forward in the process" (p. 20). Additionally, career indecision status refers to "an inability to select a career goal or having selected a career goal, to experience significant feelings of uncertainty about the goal" (Callahan & Greenhaus, 1990, p. 80). Consequently, career indecision is viewed as a severe problem characterized by the experience of high level of uncertainty regarding one's career choices (Lopez & Ann-Yi, 2006).

A considerable body of literature has focused on factors that play important role on career indecision. Studies on career indecision have mainly focused on personality characteristics as possible distinguishing factors of decided and undecided students regarding their career. Accordingly, career indecision has been measured in relation to various personality constructs including locus of control (Fuqua & Hartman, 1983; Taylor, 1982), anxiety (Newman, Fuqua, & Minger, 1990), self-efficacy (Betz &

Klein-Voyten, 1997; Taylor & Betz, 1983), vocational maturity (Fuqua, Blum, & Hartman, 1988), irrational beliefs, fear of success, (Taylor, 1982), self-esteem (Creed, Patton, & Bartrum, 2004), identity formation (Tokar, Withrow, Hall, & Moradi, 2003), perfectionism, fear of commitment (Leong & Chervinko, 1996), and pessimism (Saka & Gati, 2007). Most of the findings support the notion that, the undecided students seem to be more anxious, dependent, externally controlled, have lower self-efficacy than the decided students.

In addition to personality characteristics, many theorists (e.g., Bratcher, 1982; Roe, 1957) and researchers (e.g., Blustein, Walbridge, Friedlander, & Palladino, 1991; Lopez & Andrews, 1987) emphasized the role of familial factors on career decisions of individuals. In a sample of young adults, for example, O'Neil et al., (1980) reported that fifty percent of young adults felt their family had fairly or extensively influenced their career decision-making. According to Bratcher (1982), families establish certain patterns and principles to provide a sense of homeostasis within the family. Thus, these patterns influence behavior, including career decision-making behavior. Similarly, Lopez and Andrews (1987) conceptualized young adults' career indecision as the outcome of a larger set of transactions between person and family. Likewise, Büyükgöze Kavas (2005) and Işık (2007) found that family interaction was the most influential factor of the university students' career decision. Whiston and Keller (2004), a result of their review of both qualitative and quantitative studies investigated the influences of family variables on career development, concluded that

the career decision-making of college students and young adults were influenced by parental emotional support, autonomy support, encouragement, and warmth.

Research on career indecision indicates that variables such as gender and age are frequently investigated demographic characteristics. Regarding gender, previous studies have generally reported no difference on career indecision (e.g., Kang, 2009; Osipow, Carney, & Barak, 1976). On the other hand, majority of the investigations suggest a negative relationship between age and career indecision (e.g., Peng & Herr, 2002).

To date, various theories of career choice and development such as trait-oriented theories, developmental theories, social learning and cognitive theories, person-in-environment theories and constructivist theories have been developed to understand and explore career decision-making process of individuals (Zunker, 2006). Although most of these theories have usually been reflected Eurocentric values such as individualism and self-actualization (Weiss, 2000), the significant increase in the minority population in the USA and the intense cross-cultural interaction have led to reexamination of the several theories (e.g., Holland's career typology, Super's life-span/ life-space theory) for different cultural groups. In the recent years researchers underlined the several interacting factors and contextual issues constitute significant part of career decision-making process (Zunker, 2006). Accordingly, one of the contemporary approaches, Social Cognitive Career Theory (SCCT; Lent, Brown & Hackett, 1994, 2000) has become a frequently used and popular framework for

studying academic and career development, due to its comprehensive structure which provides a framework for assessing a wide range of personal, familial, cultural, and environmental factors that can account for one's career choice and development.

Social Cognitive Career Theory attempts to build conceptual linkages with existing career development theories (Lent et al., 1994). It has primarily derived from Bandura's (1986) general social cognitive theory that emphasizes the interactions between person, contextual, and learning factors in shaping career choice behaviors (Lent & Brown, 1996; Lent et al., 1994). To conceptualize the complex interacting influences among persons, their behavior, and their environments, SCCT adopts Bandura's (1986) triadic reciprocal model of causality. The triadic model holds that person attributes (such as internal cognitive and affective states), external environmental factors, and overt behavior each operates as interactive sets of variables that mutually influence one another. In conceptualizing personal determinants of career development, SCCT highlights three linked variables through which individuals help regulate their own career behavior: self-efficacy beliefs, outcome expectations, and personal goals (Lent & Brown, 1996). Thus, it can be said that the model emphasized three social cognitive mechanisms: (a) self-efficacy, (b) outcome expectations, and (c) personal goals that form the core of a social cognitive career approach to vocational behavior.

As highlighted in the model, cultural and contextual variables play a vital role in career decision-making process (Lent, Brown, & Hackett, 2000). Because the theory

directly considers the race and ethnicity variables as personal inputs, there are several studies conducted with different cultural groups such as African Americans, Asian Americans, Italians, and Chinese (e.g., Constantine, Wallace, & Kindaichi, 2005; Jin, Watkins, & Yuen, 2009; Lent, Brown, Nota, & Soresi, 2003) to test the SCCT model. Although SCCT has received considerable research attention since its introduction, there is a need for further cross-cultural and cross-national studies on SCCT to test the cultural validity of the model (Lent et al., 2003). Thus, the aim of the present study was to test the proposed path model of career indecision, utilizing SCCT as a framework, among Turkish university students.

1.2 Purpose of the Study

The aim of the current study was to test a model of career indecision based on Social Cognitive Career Theory (Lent et al., 1994) to understand the factors that contribute to career indecision among Turkish university students. As stated by Lent et al., (1994), "although tests of the full models of interest, choice, and performance may not be practical in a single study, focused tests of particular hypotheses or sets of hypotheses may add cumulatively to the theory's empirical base" (p. 115). Thus, in the present study the proposed path model (Figure 1.2) was designed to investigate the role of locus of control, perceived parental attitudes (acceptance/ involvement, strictness/ supervision, psychological autonomy), career decision-making self-efficacy, and career decision-making outcome expectations in predicting career

indecision among university students. More specifically the present study addressed the following research question:

“To what extent the career indecision is explained by the proposed path model that consisted of locus of control, perceived parental attitudes (acceptance/ involvement, strictness/ supervision, psychological autonomy), career decision-making self-efficacy and career decision-making outcome expectations?”

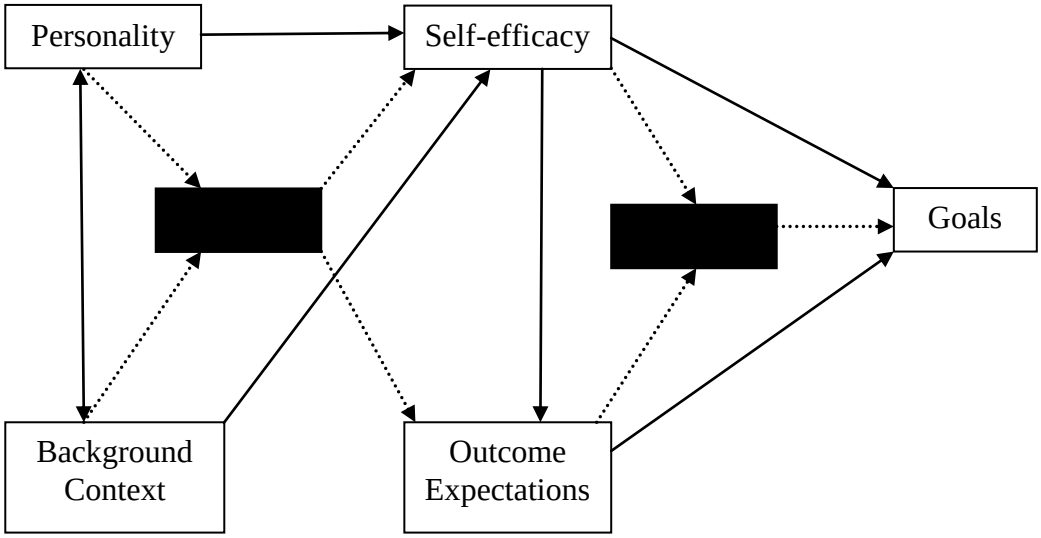
1.3 Proposed Path Model and Hypotheses

Lent et al. (1994) suggested the partial testing of the models of interest, choice, and performance rather than the full model testing. Accordingly, personality, background context, self-efficacy and outcome expectations factors, which comprised the core of the career choice model of SCCT, were included in the current proposed model of career indecision. Thus, locus of control was selected as the personality variable because it was viewed as a reliable and central variable in the career decision process (Luzzo & Ward, 1995). Because individuals mostly seek assistance from family members with regard to their career decisions (Whiston & Keller, 2004), it is important to understand and determine the influences of family, specifically parents on career decision process that's why parental attitudes were included to the model. In the present study, self-efficacy and outcome expectations were selected as mediator variables, because they were identified as major mediators of SCCT (Lent et al., 1994).

In the proposed path model, locus of control, perceived parental attitudes (acceptance/ involvement, strictness/ supervision, psychological autonomy) career decision-making self-efficacy and career decision making outcome expectations were independent variables and career indecision was the dependent or outcome variable of this study. More specifically, career decision-making self-efficacy and career decision making outcome expectations were tested as mediators between locus of control, perceived parental attitudes and career indecision in this proposed path model. Thus, the relation between locus of control and career indecision will be substantially strengthened when career decision-making self-efficacy is included as a mediator. The relation between locus of control and career indecision will be substantially strengthened when career decision-making outcome expectations is included as a mediator.

However, there are few differences observed between the current study that proposed path model of career indecision in the context of SCCT and the Lent and his colleagues' (1994) model. First, there are many personal inputs which were described by Lent et al. (1994) such as age, gender, and race, however, only locus of control as a personality variable was included in the current study. Second, the variables related to context, only the individual background context of family variables was included in the proposed path model. Third, learning experiences which are viewed as mediators of the relation between personal inputs and self-efficacy and between background context and self-efficacy were not assessed in the present study. Forth, outcome expectations were assessed and included in the

proposed path model which is predicted by self-efficacy directly. Finally, in the current model, although interests were not considered, three emphasized social cognitive mechanisms of the Social Cognitive Career Model which are self-efficacy beliefs, outcome expectations and goal representations (Lent et al., 1994) were examined (Figure 1.1). Variables symbolized by black boxes were not assessed in the current proposed path model. The relationships offered by Lent et al. (1994) are demonstrated as dotted arrows.



Variables in the present model

Variables not included

Path in the present model

Path offered by Lent et al. (1994)

Figure 1.1 Current Study in the Context of the Lent et al. (1994) Model

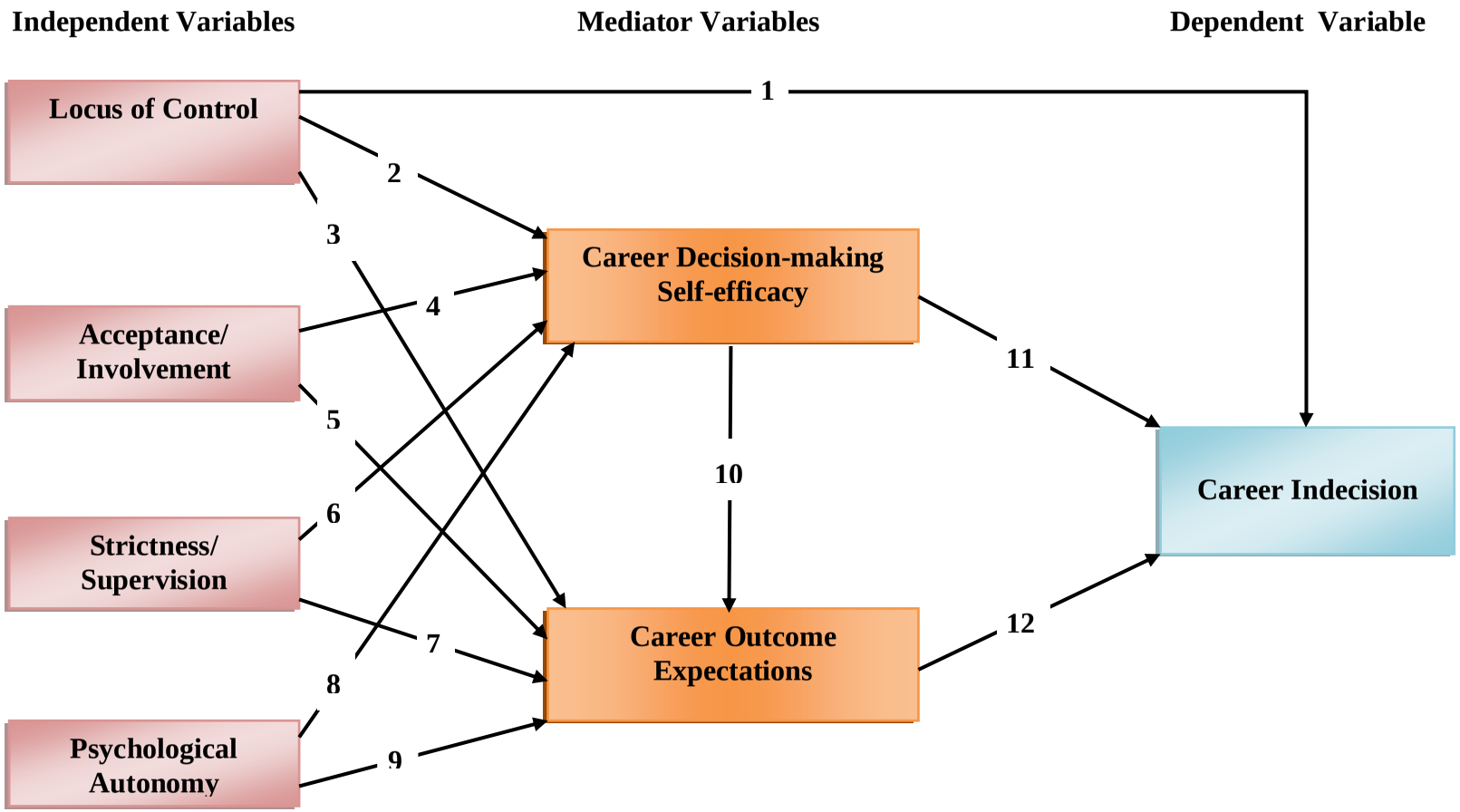


Figure 1.2 Proposed Model of Career Indecision

The following hypotheses will be tested in the present study:

Hypothesis 1: There will be a relation between locus of control and career indecision. (Path 1)

Hypothesis 2: Locus of control will be related to career indecision indirectly

(a) through career decision-making self-efficacy (Path 2 and Path 11)

(b) through career decision-making outcome expectations (Path 3 and Path 12)

Hypothesis 3: Perceived parental acceptance/ involvement will be related to career indecision indirectly

(a) through career decision-making self-efficacy (Path 4 and Path 11)

(b) through career decision-making outcome expectations (Path 5 and Path 12)

Hypothesis 4: Perceived parental strictness/ supervision will be related to career indecision indirectly

(a) through career decision-making self-efficacy (Path 6 and Path 11)

(b) through career decision-making outcome expectations (Path 7 and Path 12)

Hypothesis 5: Perceived parental psychological autonomy will be related to career indecision indirectly

(a) through career decision-making self-efficacy (Path 8 and Path 11)

(b) through career decision-making outcome expectations (Path 9 and Path 12)

Hypothesis 6: There will be a relation between career decision-making self-efficacy and career indecision. (Path 11)

Hypothesis 7: Career decision-making self-efficacy will be related to career indecision indirectly through career decision-making outcome expectations. (Path 10 and Path 12)

Hypothesis 8: There will be a relation between career decision-making outcome expectations and career indecision. (Path 12)

1.4 Significance of the Study

As emphasized by many theorists (e.g., Erikson, 1968; Super, 1980), high school years and years after high school are conceptualized as the time period when students gather information about themselves and the world of work through a process of exploration (Patton & Lokan, 2001). According to Super (1980), exploration stage takes place between the ages 14 to 25.

In Turkey, due to the structure of the education system career exploration stage seems to be experienced differently by the adolescents. According to the current system, students have to make their decisions regarding their career during high school years. This system required decision making process could be regarded as having two stages. First stage is choosing a field (Turkish Languages-Mathematics,

Sciences, Social Sciences, and Foreign Languages) on the 10th grade that would determine the range of possible programs that they could study at university. Second is the entering nationwide university entrance exam. Students were selected and placed in undergraduate programs based on that exam scores. However, the discrepancy existing between the number of potential degree candidates and the actual number of student placements in academic programs is enormous. Each year only about one-third of the candidates placed in a university program, leaving two-thirds without higher education (Mızıkacı, 2006). Therefore, in order to enter one of the highly ranked universities, students and parents extremely focus on being successful in the exam. Throughout the preparation process for the entrance exam many students and parents seem to ignore the importance of career exploration and may not consider engaging career exploration activities. However, when students enter a university it becomes difficult to change the department. Universities provide very limited and competitive options for undecided students. In some universities in Turkey, one option for undecided students could be undergraduate minor programs (which allow academically successful students to become knowledgeable in another subject area that they are interested in) and the other one could be double major programs (which allow academically successful students to work towards a second undergraduate diploma in another department). As the current higher education system do not offer much opportunities to undecided students to change their program or department, a considerable number of students who are placed into academic programs after passing the exam, re-take the entrance exam several times to enter the academic program that they desire. For example, in 2010, 23% of the

students who entered university entrance exam were retaking the exam even they were currently university students (ÖSYM, 2010). Thus, it is possible to claim that, university entrance exam achievement may not be enough for some students to fulfill their career decisions and be satisfied with the choice.

In the current university placement system, it is not clear to what extent university students are left with the consequences of possible early, immature and undesirable choices. In this regard at university level, it is particularly important to assess factors that contribute to career indecision and relevant skills that are essential to facilitate students' career planning. Otherwise, as a long-lasting consequence of career indecision many students may be at risk for being unsatisfied with the occupation they eventually obtain.

Many career development theories have developed models to investigate the factors that have impact on career indecision. However, most of these models have been developed in Euro-American cultures reflecting an individualistic orientation. Thus, these theories may not be applicable for ethnic minorities and culturally diverse populations that served collectivistic notion (Weiss, 2000). However, Social Cognitive Career Theory (SCCT) which involves an examination of the personal and contextual factors that may affect the career development process may provide a useful framework for understanding the issues and obstacles characterizing the career development of women and members of particular racial or ethnic minority groups (Lent et al., 1994). SCCT was preferred as the theoretical framework of the current

study because SCCT emphasizes several cognitive-person variables (e.g., self-efficacy, outcome expectations, and goals), and on how these variables interact with other aspects of the person and his or her environment (e.g., gender, ethnicity, social supports, and barriers) to help shape the course of career development (Lent et al., 2000).

While western cultures emphasize the significance of making personal decisions, choice, concluding judgments, and defending personal opinions, eastern cultures stress the importance of collective or group decisions, thoughts of significant others in decision-making process (Mau, 2001). Turkish culture, which is close to collectivistic orientation, family and social environment seem to have significant influences on life decisions (Mocan-Aydın, 2000). Thus, contextual factors such as family are expected to be related to career decisions might be essential to investigate. The present study through taking SCCT as a theoretical framework, aims to investigate the relationship between career indecision and locus of control, parental attitudes (acceptance/ involvement, psychological autonomy, strictness/ supervision), career decision-making self-efficacy, and career decision-making outcome expectations.

It can be stated that no published research in Turkey has examined the combined influence of aforementioned model and related variables on career indecision. In this respect, this study aimed to address gaps in career indecision research with an uninvestigated population. Furthermore, one of the aims of this study is to make

translation, validity, and reliability studies of three scales; Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, & Koschier, 1976), Career Decision Self-Efficacy Scale-Short Form (Betz & Klein, 1996), and Career Outcome Expectations Scale (Betz & Klein-Voyten, 1997).

As stated by Saka and Gati (2007), assessing and identifying the sources of individuals' career decision-making difficulties is the first step before assisting these individuals. Career related problems mostly career indecision may lead to serious psychiatric syndromes or vocational issues if ignored or ineffectively addressed in counseling (Hinkelman & Luzzo, 2007). For example, significant positive relationship between depression and career indecision was reported among university students (Saunders, Peterson, Sampson, & Reardon, 2000). Thus, university counseling centers, university career planning centers as well as academic departments need to develop more comprehensive understanding about underlying factors of career indecision among students. Therefore, it is also hoped that the findings of the present research may provide further insight to practitioners working in university counseling centers and university career planning centers when measuring career indecision, planning preventive and remedial programs and interventions for clients with career indecision and related issues university students.

1.5 Definition of Terms

Locus of control refers to "a person's expectancies with regard to whether reinforcement is controlled internally (i.e., by oneself) or externally (i.e., by fate, chance, luck, or powerful others)" (Jolley & Spielberger, 1973, p. 443).

Parental Attitudes are conceptualized as three different patterns those are acceptance/ involvement, strictness/ supervision, and psychological autonomy. Acceptance/ involvement refers to the degree to which individuals perceive their parents as loving, responsive, and involved; strictness/ supervision reflects ultimate parental monitoring and supervision of the children; and psychological autonomy refers to noncoerceive and democratic discipline of parents (Lamborn, Mounts, Steinberg, & Dornbush, 1991).

Career Indecision is the state of having difficulties in setting a career goal, in particular, either the inability or unwillingness to choose a career goal, or having the feeling of uncertainty toward an expressed career goal (Callahan & Greenhaus, 1992). According to Osipow (1999), indecision refers to "a temporary state or developmental phase through which individuals may pass on their way to reaching a decision" (p. 147). Guay, Senécal, Gauthier, and Fernet (2003) defined career indecision "as an inability to make a decision about the vocation one wishes to pursue" (p. 165).

Career Decision-making Self-efficacy is individual's belief that he or she can successfully complete tasks necessary to make career decision (Taylor & Betz, 1983). In addition, it refers to beliefs in competencies with respect to the behaviors necessary in particular career-relevant domain (Betz & Klein-Voyten, 1997).

Outcome Expectations "involve beliefs in the consequences of performing given behaviors" (Betz, & Klein-Voyten, 1997, p. 181). According to Bandura (1977), outcome expectancy is defined as a person's estimate that a given behavior will lead to certain outcomes (p. 193).

Career Decision-Making Outcome Expectancies refers to "beliefs regarding the long term consequences of success in specific educational or career decision-making behaviors. Similarly, outcome expectations regarding career decision-making behaviors were defined as "the belief that those behaviors would be useful to subsequent career options and decisions" (Betz, & Klein-Voyten, 1997, p. 182).

CHAPTER II

REVIEW OF THE LITERATURE

This chapter presents the review of the related literature starting with a summary of major theories and models of career choice and development. Then, comprehensive information regarding theoretical framework of the study which is the Social Cognitive Career Theory (Lent et al., 1994) was provided. The chapter continues with the major research findings concerning the demographic variables, proposed model variables and career indecision. Lastly, the chapter mentions the studies on career indecision in Turkey.

2.1 Theories and Models of Career Choice and Development

In general "a theory is a series of connected hypothetical statements designed to explain a particular behavior or set of behaviors" (Swanson & Fouad, 1999, p. 3). As stated by Brown (2003), "theories provide us with simplified pictures or road maps to the career development process" (p. 22). To date, several career theories have been designed to explain career development and career decision making (Osipow, 1990).

In the following section, brief descriptions of mostly cited established and emerging theories of career choice and development as Parsons' Trait and Factor Theory, Theory of Work Adjustment, Holland's Career Typology, Super's life-span/ life-

space theory, Gottfredson's Theory of Circumscription and Compromise, Krumboltz's Learning Theory of Career Counseling, Cognitive Information Processing Approach, Social Cognitive Career Theory, Brown's Values-Based Holistic Model of Career and Life-Role Choices and Satisfaction, Ecological Model of Career Development, and Career Construction Theory will be provided (Amundson, Harris-Bowlsbey, & Niles, 2009; Brown, 2003; Gysbers, Heppner, & Johnston, 2002; Luzzo, 2000; Niles & Harris-Bowlsbey, 2005; Sharf, 2006; Walsh & Osipow, 1990; Zunker, 2006).

2.1.1 Established Theories of Career Choice and Development

Trait-and-factor theory (TFT) is the first conceptual framework proposed by Parsons (1909) to understand and explain career decision-making process. The term trait refers to a characteristic of an individual that can be measured through testing and factor refers to a characteristic required for successful job performance. Thus, the terms trait and factor refer to the assessment of characteristics of the person and the job (Sharf, 2006). Parsons' approach consisted of three steps used to help someone make an occupational choice (Amundson et al., 2009).

> In the wise choice of a vocation there are three broad factors: (1) a clear understanding of yourself, aptitudes, abilities, interests, resources, limitations, and other qualities; (2) advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; (3), true reasoning on the relations of these two groups of facts (Parsons, 1909, p. 5).

Thus, the theory mainly based on the process of matching individuals' traits with requirements of occupations. Accordingly, the major goal of career counseling is integrating information about one's self and about occupations (Sharf, 2006). Niles and Harris-Bowlsbey (2005) listed the basic assumptions of the theory as occupational choice is a single and point-in-time event, career development is mainly a cognitive process based on rational decision-making, occupational adjustment rely on the degree of concurrence between characteristics of worker and work demands, due to one's self-characteristics, each worker is best fitted for a specific type of work, and groups of workers in different occupations have different self-characteristics. The development of standardized assessment instruments, occupational analysis procedures and the importance of individual values have been emphasized by the trait and factor theory viewed useful in career counseling (Zunker, 2006). The theory was criticized because it viewed career decisions are based primarily on measured traits that limits the inclusion of many other possible factors that can be considered in the career development and career decision making process. Even if the approach emphasizes identifying the individual traits and factors, it does not provide any explanations regarding how interests, values, aptitudes, achievement and personality grow and change (Herr, Cramer, & Niles, 2004). Further, limitations include insufficient attention to sex, race, and socioeconomic status (Betz, Fitzgerald, & Hill, 1989). There is little research supporting or refuting the theory (Sharf, 2006).

The theory of work adjustment (TWA) grew out of the University of Minnesota's Work Adjustment Project to study job satisfaction and worker adjustment (Dawis,

2005; Dawis & Lofquits, 1984). Since early 1990s it is referred to as the person environment correspondence (PEC) counseling (Lofquist & Dawis, 1991; Osipow & Fitzgerald, 1996). TWA has two assumptions: people have two types of needs as biological (e.g., need for food) and psychological (e.g., social acceptance). Second assumption is that work environments have requirements parallel to the needs of individuals. When the needs of individuals in an environment (work) and those of the environment are satisfied, correspondence exists (Brown, 2003). The theory based on the idea that "most problems brought to counselors by clients stem from lack of fit, or discorrespondences between person and the environment" (Lofquist & Dawis, 1991, p. 1). In order to survive, the individual and the work environment must achieve some degree of correspondence. The effort of the individual to maintain this correspondence is called work adjustment (Osipow & Fitzgerald, 1996). According to the approach, work includes human interaction and sources of satisfaction, dissatisfaction, rewards, stress and many other psychological variables. Thus, to understand work adjustment, the personality characteristics of the worker such as abilities and psychological needs and the structure of the target environment must be known. In addition, the theory emphasized the importance of the relationship between job satisfaction and work adjustment because job satisfaction is viewed as a significant indicator of work adjustment (Dawis, 2005). The position that individual needs and values are significant components of job satisfaction is an important contribution to the study of career development (Zunker, 2008). The theory is subject to some criticisms like it does not directly address boundaries of the effects of

correspondence. In addition, the distinction between the actual and perceived person and environment received little research attention (Edwards, 2008).

Holland's career typology viewed personality as a result of the interaction of inherited characteristics, the type of environment the parents provide, individual reinforcement experiences, the activities to which the individual is exposed, and the interests and competencies that grow out of the activities (Holland, 1997; Osipow, 1990). According to Holland (1985), his approach can be described as structural and interactive because it organizes information about people and occupations and supposes that interaction of people and environments lead to vocational and social behavior. Career choice can be seen as an expression of personality into the world of work. A comparison of self with the perception of an occupation and following acceptance or rejection is a major determinant in career choice. Holland proposes six different personality types which are realistic, investigative, artistic, social, enterprising, and conventional. According to Holland, a person can be typed into one of these categories by expressed or displayed vocational or educational interests, by employment, or by scores obtained on several instruments such as the Self-Directed Search. Parallel to these personality types, six work environments as realistic, investigative, artistic, social, enterprising, and conventional were offered (Holland, 1985). Accordingly, the theory proposes four basic assumptions. Firstly, people can be classified as one of these six personality types. Secondly, environments can be also categorized as one of six types. Thirdly, people seek environments which allow them to use their skills and abilities, express their attitudes and values, and take on

problems and roles that fit them. Lastly, the interaction between personality and environment determines individual behavior (Hartung & Niles, 2000). Holland graphically represented six personality style and environments around a hexagon to show relationships within and between types of personality and environments. As a result, three important constructs arise as consistency, differentiation, and identity (Niles & Harris-Bowlsbey, 2005). Consistency refers that the shorter the distance on the hexagon between any two types or environments, the more similar are those types or environments (Hartung & Niles, 2000; Niles & Harris-Bowlsbey, 2005). Differentiation refers to the degree of crystallization of among types. Identity refers to the clarity and stability of a person's goals (Sharf, 2006). Consequently, a congruent person-environment match most likely results in a more stable vocational choice, greater satisfaction, greater vocational achievement, and better maintenance of personal stability (Brown, 2003; Zunker, 2006). Holland's theory has investigated more than other career development theories. However, it criticized because the theory does not consider geographical location, non-Holland personality factors, education, and personal responsibilities to family (Sharf, 2006).

Super's life-span/ life-space theory is mainly interested in determining how self-concept is implemented in vocational behavior (Zunker, 2006). Super (1990) described the theory as "a synthesis of developmental, differential, social and phenomenological psychology" (p. 194). In addition, career development is viewed as a lifelong process (Hartung & Niles, 2000). Self-concept, life-span and life space are three important segments of the theory (Gysberg et al., 2002). Self-concept can

be defined as internalized personal view of self and individual's view of the situation or condition in which he or she exists (Brown, 2003). The life span consists of five chronological developmental stages of life from birth to death like growth (birth to age 14 / 15), exploration (ages 15-24), establishment (ages 25-44), maintenance (45-65), and decline (ages 65+). These stages are characterized by a set of vocational developmental tasks. An individual's progress in achieving the tasks through the stages described as vocational or career maturity. Life space refers to the particular roles that a person plays at any time in the life span (Hartung & Niles, 2000; Osipow, 1990). Goals of the theory can be summarized as enhancing the level of career maturity, strengthening self-concept, as well as identifying interests, abilities, and values and distributing them across life roles (Amundson et al., 2009). Life–span, life-space theory constructs on fourteen propositions. Accordingly, the first three propositions point out that people have different abilities, interest, and values hence; they may be qualified more than one occupation. There are many occupations accessible for an individual so that no person fits only one occupation. The next six propositions emphasize on the self-concept and its implementation in career choice, and on the concepts of career patterns and career maturity. The next five propositions are related to the synthesis and compromise between individual and social factors and work and life satisfactions. The last one stresses work and occupation as the focus for personality organization as well as the interplay of such life roles as worker, student, homemaker, and citizen (Gysberg et al., 2002). Super (1990) presented a life-stage model by means of a life rainbow. This two-dimensional graphic is a representation of longitudinal dimension of life span corresponding

major life stages and the second dimension is named as life space refers to the roles played by individuals as they progress through developmental stages. Further, he developed an archway model to show the changing diversity of life roles over the life span. Further, the model stressed how career development process affected by biological, psychological and socioeconomic factors (Zunker, 2006). Contributions of Super's theory acknowledged by many authors (e.g., Hackett, Lent, & Greenhaus, 1991; Osipow & Fiztgerald, 1996). According to Salomone (1996), however, Super has not stated testable hypotheses for various propositions of his theory. Also the relationship between theoretical propositions and empirical findings is not clearly explained (Salomone, 1996).

Gottfredson's Theory of Circumscription and Compromise is a developmental theory of occupational aspirations which helps to explain how people see themselves with respect to society and individuality (their values, feeling, and interests). Circumscription is described as a process in which young people eliminate unacceptable occupational alternatives. Gottfredson (1981) proposes four stages of circumscription that are orientation to size and power (ages 3-5), orientation to sex roles (ages 6-8), orientation to social valuation (ages 9-13), and orientation to the internal unique self (ages 14 and older). Also, compromise is described as a process in which young people give up alternative that they may like for ones that may be more accessible to them (Niles & Harris-Bowlsbey, 2005; Sharf, 2006). The theory based on four basic assumptions:

(1) The career development process begins in childhood; (2) career aspirations are attempts to implement one's self-concept; (3) career satisfaction is dependent on the degree to which the career is congruent with self-perceptions; and (4) people develop occupational stereotypes that guide them in the selection process (Brown, 2003, p. 40).

According to Gottfredson (2005), self-concept consisted of both social and psychological self. The social self includes self-perceptions about intelligence, social status, and gender, whereas the psychological self is composed of variables as values and personality variables. People develop cognitive maps of occupations that are organized along with masculinity/ femininity of the occupation, the prestige of the occupation, and fields of work. Of these dimensions, the sex-type assigned to the occupation and the prestige associated with it are viewed as the most important dimensions in the career decision-making process. People begin to narrow their range of occupations based on their estimates of compatibility (sex-type, prestige, and interests) and accessibility. Thus, using these three variables and their knowledge about the accessibility of careers, individuals develop a zone of acceptable occupations within their cognitive map of the occupational structure (Brown, 2003; Osipow, 1996). Gottfredson's theory provides several concepts about boundaries and motivational dimensions regarding the formation of occupational aspirations. On the other hand, Brown (1996) claimed that the propositions relating to the factors that lead to circumscription and compromise are too general.

Krumboltz's Learning Theory of Career Counseling is an extension of the earlier Social-Learning Theory Approach to Career Decision Making (Mitchell & Krumboltz, 1996). "The theory is an attempt to simplify the process of career selection and is based primarily on life events that are influential in determining career selection," (Zunker, 2002, p. 65). Krumboltz's Learning Theory of Career Counseling composed of two parts. The first part explains the origins of career choice and the second part focuses what career counselors can do to help solve career-related problems (Niles & Hartung, 2000). The theory identified four factors that influence the career decision-making which are genetic endowment (e.g., race, sex, physical ability) and special abilities (e.g., intelligence, musical ability, artistic ability), environmental conditions and events (e.g., number and nature of job opportunities, social policies and procedures for selecting workers, technological developments), learning experiences (e.g., instrumental learning experiences, associative learning experiences), and task approach skills (e.g., work habits, perceptual and cognitive processes, emotional responses) (Krumboltz, Mitchell, & Jones, 1976; Krumboltz & Nichols, 1990). As a result of the combination of these factors three important consequences are postulated. The first is self-observation generalizations. These are self-views that the individual learns based on life experiences. The second consequences stresses the task approach skills which include the both cognitive and affective sets of skills the individuals have developed such as problem-solving skills, work habits, emotional responses, and cognitive responses. The last consequences are actions concerned with entry behaviors which represent an overt step in a career progression including changing a college major,

applying for a specific job, accepting a job offer and other activities (Brown, 2003; Krumboltz et al., 1976; Osipow, 1996). The planned happenstance model (Mitchell, Levin, & Krumboltz, 1999) was generated to emphasize the role of chance in career planning. More specifically, the model includes the creating and transforming of unplanned events into learning opportunities. The goal of a planned happenstance intervention is to assist client to generate, recognize, and incorporate chance events into their career development (Mitchell et al., 1999). Accordingly, a four-step intervention model was proposed as normalized planned happenstance in the client's history, assist clients to transform curiosity into opportunities for learning and explorations, teach clients to produce desirable chance events, and teach clients to overcome blocks to action. Strength of the theory is that it considers both environmental and intra-individual variables affecting career development (Niles & Harris-Bowlsbey, 2005). In contrast, some negative aspects of the theory are recognized. According to Brown (1990), the biggest weakness of the theory is its failure to account for job change. In addition, Osipow and Fitzgerald (1996) argue that there is too much emphasis on the choice itself and not enough on the adjustment process.

2.1.2 Emerging Theories of Career Choice and Development

Cognitive Information Processing Approach (CIP) was developed to understand how people make a career decision and use information in career problem solving and decision making (Peterson, Sampson, & Reardon, 1991). There are four assumptions underlying the Career Information Processing Theory. First, career problem solving

and decision-making involve the interaction of affective and cognitive processes. Second, the capability for career problem solving depends on the availability of cognitive operations and knowledge. Third, career development is ongoing and cognitive structures such as schemas that develop and grow throughout the life span. Fourth, enhancing information processing skills is the goal of career counseling. (Niles & Harris-Bowlsbey, 2005; Peterson, Sampson, Lenz, & Reardon, 2002; Sharf, 2006). In CIP theory, a problem is defined as "a gap between an existing and a desired state of affairs or more simply, a gap between where a person is and where he or she wants to be" (Sampson, Lenz, Reardon, & Peterson, 1999, p. 5). The theory viewed career problem solving is mostly a cognitive process that can be improved through the communication, analysis, synthesis, valuing, and execution (CASVE) cycle (Sampson et al., 1999). A choice viewed as the outcome of the problem solving process. Sampson, Peterson, Lenz and Reardon (1992) proposed a pyramid named as Pyramid of Information Processing Domains that can be used to show what is involved in making a career decision. The pyramid includes self-knowledge (e.g., values, interest, skills) and occupational knowledge (e.g., occupations, programs of study, jobs), decision-making skills (e.g., CASVE cycle), and metacognitions (e.g., self-talk, self-awareness, and the monitoring and control of the decision-making process) (Sampson et al., 1999). Therefore, knowledge of self and occupations form the foundation of pyramid, and then decision making skills and metacognitions construct on this foundation. CIP approach suggested a career counseling model composed of seven steps. These steps can be summarized as initial interview, preliminary assessment, defining problem and analyzing causes, formulating goals,

developing individual learning plan, and practicing individual learning plan (Zunker, 2006).

Brown's Values-Based, Holistic Model of Career and Life-Role Choices and Satisfaction is a model of career development that focuses on the importance of values in career decision-making (Niles & Harris-Bowlsbey, 2005). The approach considered the work of Rokeach (1973), Super (1990), and Beck (1987). Values are beliefs that are experienced by the individual as standards by which people evaluate their own actions and the actions of others, and they play a significant role in the establishment of personal goals. Values are beliefs containing cognitive, affective and behavioral dimensions (Brown, 2003). According to Brown (2002), values are shaped by genetics and environment. As a result of genetics and environmental effects, specific values become more important than others. Brown's values-based model of career choice is based on six basic propositions. First, individuals prioritize only a small number of values. Second, highly prioritized values are the most important determinants of life-role choices. Third, values are acquired through learning from values-laden information in the environment. Forth, life satisfaction depends on life roles that satisfy all essential values. Fifth, a role's salience is related to degree of satisfaction of essential values within roles. Sixth, success in life role depends on many factors, some of them are learned skills and some of them are cognitive, affective, and physical aptitudes (Zunker, 2002). According to approach, to make a career decision, values should be crystallized and prioritized. Otherwise, values can be clarified and changed by the processes of contemplation and conflict

by means of activities or assessments and self-confrontation of various values (Niles & Harris-Bowlsbey, 2005).

Ecological Approach of Career Development views human behavior results from the ongoing dynamic interaction between the person and environment (Cook, Heppner, & O'Brien, 2002). Ecological system and person-in-environment are often used interchangeably (Cormier & Nurius, 2003). In this perspective, four subsystems were identified which influence human behaviors (Bronfenbrenner, 1977). The first one is the microsystems include the interpersonal interactions within a given environment such as home, school, or work settings, the second one is the mesosystems constitute interactions between two or more microsystems such as the relations between an individual's school and work environment, the third one is the exosystems consist of linkages between subsystems that indirectly influence the individual such as neighbors, workplaces, media, and the last one named as macrosystems that are the ideological components of a given society, including norms and values (Cook et al., 2002). As the name of the perspective implies, career development is thought to be influenced and constructed by the interrelationships between the subsystems in a larger ecosystem (Bronfenbrenner, 1977; Zunker, 2006). The model also recognizes that although individuals of the same biological sex or race may encounter similar circumstances because of their demographics, each career path is unique because of individual circumstances, and unique interactions of their subsystems (Gysbers et al., 2002).

Career Construction Theory "explains the interpretive and interpersonal processes through which individuals impose meaning and direction on their vocational behavior" (Savickas, 2005, p. 42). The theory updates and advances Super's theory of vocational development by using the psychological approach of constructivism as a metatheory with which reconceptualize central concepts of vocational development theory (Savickas, 2005; Zunker, 2006). Career construction theory addresses how the career world is made through personal constructivism and social constructionism. It asserts that individuals construct their own reality. According to Savickas (2005), individuals construct their careers by imposing meaning on their vocational behavior and occupational experiences. There are three central components which are vocational personality, career adaptability, and life themes structure (Amundson et al., 2009). In addition, goals of the approach can be summarized as to make the client aware of significant life themes and unresolved problems, to help the client construct a career that will facilitate the use of this life theme or help solve this unresolved problem, to help the client develop career adaptability in order to be able to cope with the ever-changing ways to implement self-concept in work (Amundson et al., 2009; Niles & Harris-Bowlsbey, 2005).

2.2 Theoretical Framework of the Study: Social Cognitive Career Theory (SCCT)

Social Cognitive Career Theory (SCCT; Lent, Brown, & Hackett, 1994) is one of the recent approaches to understand career development processes. It is intended to offer a unifying framework for bringing together common pieces, or elements, identified

by previous career theories such as trait-factor, developmental and work adjustment and "arranging them into a novel rendering of how people (1) develop vocational interests, (2) make (and remake) occupational choices and, (3) achieve varying levels of career success and stability" (Lent, 2005, p. 101).

SCCT is derived primarily from Bandura's (1986) general social cognitive theory which emphasizes the interactions among people, their behavior, and environments. More specifically, the theory based on two extensions of Bandura's theory, which are Krumboltz and colleagues' social learning theory of career decision-making and Hackett and Betz's (1981) career decision-making self-efficacy theory (Lent, Brown, & Hackett, 1996).

SCCT recognizes the importance of interests, abilities, and values in the career development process as trait-factor theories. In addition, similar to developmental theories, SCCT is interested in how people deal with particular developmental milestones (e.g., career choice) and obstacles (e.g., prematurely eliminated options) which have an important impact on their career futures. In general, trait-factor, developmental and social cognitive approaches are concerned with the prediction and understanding of career development (Lent & Savickas, 1994). Although Social Cognitive Career Theory shares certain features and goals with the trait-factor and developmental approaches, it differs in many ways. Unlike the trait-factor theories, SCCT emphasizes dynamic and situation-specific aspects of both people and their environments. In contrast to developmental theories, SCCT does not consider the

specified ages and stages of career developmental tasks rather, it is concerned with particular theoretical elements which support effective career behaviors (Lent, 2005).

The theory is predominantly concerned with the roles of three social cognitive mechanisms related to career development: self-efficacy beliefs, outcome expectations, and personal goals (Lent et al., 1994; Lent, 2005). Self-efficacy beliefs refer to "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). These beliefs are viewed as the most important determinants of thought and action in Bandura's (1986) theory. Self-efficacy beliefs introduced into the career literature by Hackett and Betz (1981) have received considerable research attention. SCCT is closely linked to Taylor and Betz's (1983) application of the self-efficacy beliefs which have been found to be predictive of academic and career–related choice and performance indices (e.g., Hackett & Lent, 1992). These beliefs about personal capabilities can be changed and responded to environmental conditions. Four informational sources or types of learning experience may be influence on self-efficacy beliefs: personal performance accomplishments, vicarious learning, social persuasion, and physiological and affective states (Bandura, 1997; Lent, 2005). As stated by Lent (2005), "the impact of these four informational sources on self-efficacy depends on a variety of factors, such as how individuals attends and interprets them" (p. 104).

Another important component in SCCT is outcome expectations "refer to beliefs about the consequences or outcomes of performing particular behaviors" (Lent, 2005, p. 104). "Outcome expectations involve imagined consequences of performing particular behaviors such as if I do this, what will happen?" (Lent et al., 1994, p. 83). According to Bandura (1986), both self-efficacy and outcome expectations play an important role to determine the behaviors, however, self-efficacy is seen as more influential determinant of behavior. People develop outcome expectations about different academic and career path from a variety of direct and vicarious learning experiences and secondhand information they obtain about different career fields.

Social cognitive theory suggests that goals have an important role in the self-regulation of behavior. Accordingly, personal goals are defined as "an individual's intention to engage in a particular activity or to produce a particular outcome, addressing questions such as, how much and how well do I want to do this?" (Lent, 2005, p. 105). SCCT differentiates choice-content goals (the type of activity or career the individual wishes to pursue) and performance goals (the level or quality of performance the individual plans to achieve within a chosen endeavor). By setting personal goals, people organize, direct, and sustain their own behavior, over long periods of time even in the absence of external reinforcement. Such goals can be broadly conceptualized as career plans, decisions, aspirations, and expressed choices (Lent et al., 1994). According to social cognitive theory, people's choice and performance goals are extremely affected by their self-efficacy and outcome expectations. For example, low self-efficacy may directly limit the expression of

certain choice goals and may be related to increased vocational indecision (Taylor & Popma, 1990).

SCCT is comprised of three interlocking models (Figure 2.1): (1) the formation of career interests, (2) selection of academic and career choice options, and (3) performance in educational and occupational pursuits (Lent et al., 1994). In each model, "the basic theoretical elements which are self-efficacy, outcome expectations, and goals are seen as operating in concert with other important aspects of persons (e.g., gender, race/ ethnicity), their contexts, and learning experiences to help shape the contours of academic and career development" (Lent, 2005, p. 106).

According to SCCT's interest model, self-efficacy and outcome expectations regarding particular activities help to shape career interests. Interest in activity is mostly increase when people (1) view themselves as competent regarding the activity and (2) anticipate positive outcomes. Conversely, when people doubt about their efficacy and expect undesirable or negative outcomes, they are likely to develop disinterest to such activities (Lent, 2005; Lent & Brown, 1996; Lent et al., 1994). Thus, interest, self-efficacy, and positive outcome expectations in relation to a particular activity are hypothesized to support goals for further activity (Lent & Brown, 1996). Along with self-efficacy beliefs and outcome expectations, SCCT considers other aspects of people and their environments which may have an effect on interests. Each person receives certain affordances from the environment that assist to form or guide his or her career development (Vondracek, Lerner, &

Schulenberg, 1986). In SCCT, these contextual affordances are divided into two general types, based on when they occur within the choice process. The first type includes background influences (e.g., cultural and gender role socialization, types of available career role models) that help to shape self-efficacy, outcome expectations, and interests. The second type involves environmental influences that come into play during the active phases of choice-making (e.g., emotional or financial support for pursuing a particular option). In SCCT's interest model, effects of contextual variables on self-efficacy and outcome expectations are considered. Lent et al., (1994) consider two means by which contextual factors may affect people during the process of setting and implementing their career choice goals. First, SCCT asserts that some situations may directly influence people's choices or implementation possibilities. For example, in some cultures, individuals may defer their career decisions to significant others in the family, even where the others' preferred career path is not all that interesting to the individual. Second, contextual variables may affect people's ability or willingness to translate their interests into goals and their goals into actions. According to SCCT, "career interests are more likely to blossom into goals (and goals are more likely to be implemented) when people experience strong environmental supports and weak barriers in relation to their preferred career paths" (Lent, 2005, p. 110).

According to the choice model of SCCT, career choice is realized by subprocesses as the development of self-efficacy, outcome expectations, interests, and skills in different performance domains. After initial career choices are made, they are subject

to future revisions because people and their environments are dynamic. Therefore, new paths (or branches from old paths) may occur, barriers may arise, or value and interest priorities may shift during the individual's working life (Lent, 2005). It is assumed that "under supportive environmental conditions, people's career interests tend to orient them toward particular fields wherein they might perform preferred activities and might interact with others who are like themselves in important ways" as in Holland's theory (Lent & Brown, 1996, p. 315). There are many factors lead to construction of choice such as economic realities, family dictate and wishes, discrimination, or the quality of one's prior education. Thus, career choice may be less an expression of personal interests than of other factors (Lent, 2005; Lent & Brown, 1996; Lent et al., 1994).

In the performance model, SCCT is mainly concerned with the factors which influence academic and career related performance. SCCT views educational and vocational performance as involving the interaction among people's ability, self-efficacy, outcome expectations, and performance goals. Accordingly, stronger self-efficacy and positive outcome expectations support more motivated goals, which help to organize and sustain performance efforts. Although this model points person-level (e.g., cognitive, motivational) processes, people develop their talents, self-efficacy, outcome expectations, and goals within a larger sociocultural context. "The learning experiences to which people are exposed and the performance outcomes they receive are intimately related to features of their environments, such as educational quality, nature of available role models, parenting style, gender role

socialization, peer supports, and community and family norms" (Lent, 2005, p. 112). Moreover, self-efficacy is seen as complementing objectively assessed ability in SCCT's performance model. For example, individuals with low confidence in their abilities to complete career decision-making tasks may exhibit increased career indecision (Taylor & Betz, 1983).

SCCT also takes into account personal, environmental, and societal factors that indirectly influence interest formation and career choice behaviors. According to Lent et al. (1994), person inputs refer to biological attributes, such as race and sex that impact the individual through his or her social/cultural meaning. Other person inputs include ability and predispositions such as personality. Within the SCCT models two types of contextual influences are posited, (1) background contextual affordances that directly precede learning experiences and (2) contextual influences proximal to career choice. Learning experiences are conceptualized as the four sources of self-efficacy proposed by Bandura (1986): performance accomplishments (one's own successes or failures in particular activities), verbal persuasion (career-related messages received from important others), vicarious learning (influence of observing others' behaviors and outcomes), and psychological affective states (emotional arousal that influences one's cognitions regarding career-related information). According to SCCT, these experiences are posited to influence self-efficacy and outcome expectations. Person inputs, learning experiences, and contextual influences are hypothesized to influence career choice and behaviors through three possible pathways: "(a) precursors of sociocognitive variables, (b)

moderators of certain key theoretical relations, or (c) direct facilitators or deterrents" (Lent et al., 1994, p. 101). Background contextual affordances include family and social inputs that shape learning experiences, whereas contextual influences proximal to choice behaviors include factors such as career opportunities and barriers.

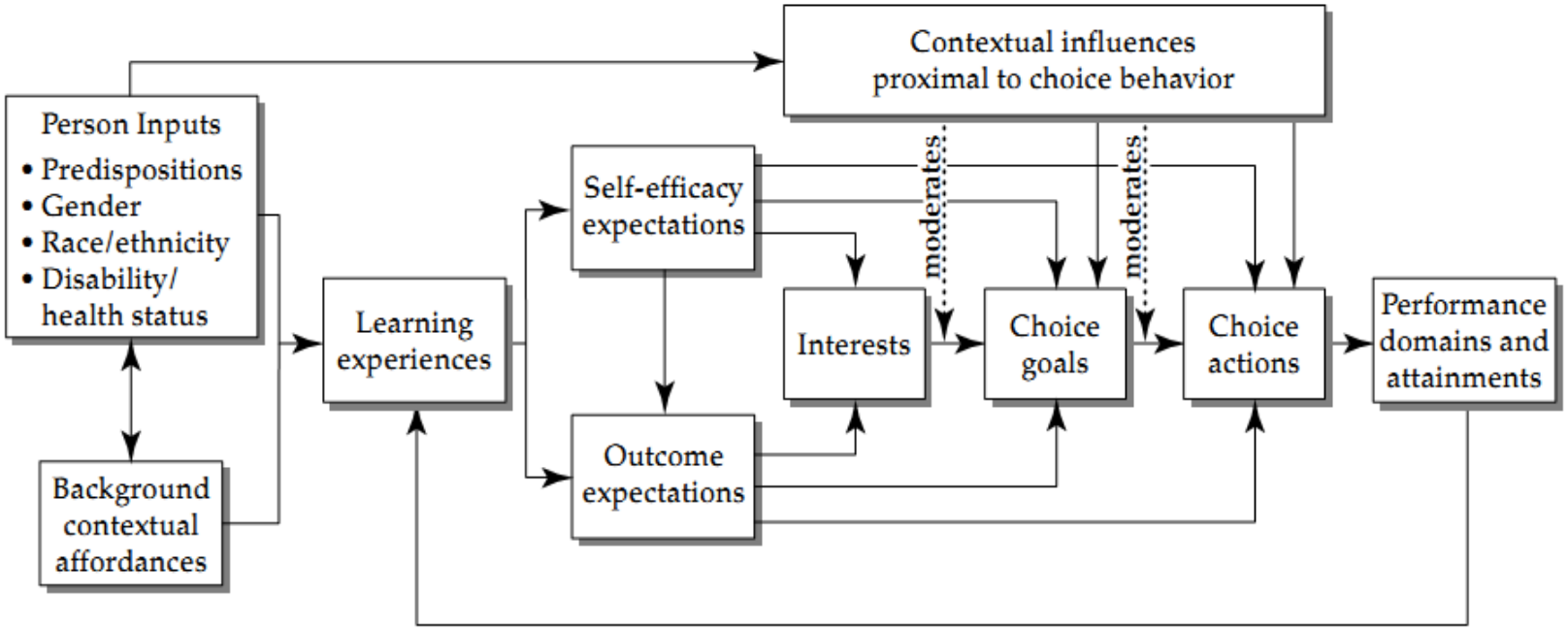


Figure 2.1 Model of person, contextual, and experiential factors affecting career-related choice behavior.

SCCT has received considerable research attention since its introduction. The theory's basic predictions regarding interest, choice and performance have been supported by a number of studies. However, studies of SCCT have largely focused on mathematics and science-related fields rather than academic/ career domains (Lent, Brown, Nota, & Soresi, 2003). A selective review of studies that point out career decision making and related factors within the framework of SCCT presented.

In one such study, Huang (1999) designed a mediational model based on SCCT that incorporated four constructs: family environment (family relationship), personality (neuroticism, extraversion, openness, agreeableness and conscientiousness), self-efficacy (technical-scientific self-efficacy and aesthetic self-efficacy), and career indecision (chronic indecision, developmental indecision, and global indecision) in a group of university students (N = 268). This investigation emphasized the role of self-efficacy as a mediator as in SCCT. Consistent with SCCT, results of the study revealed that family environment and personality were related to men's career indecision directly and indirectly through self-efficacy. Further, personality is a personal input related to women's career indecision directly and indirectly mediated by self-efficacy.

Similarly, in a more recent study, Feldt and Woelfel (2009) examined gender, personality domains of five-factor model, and anticipated career outcomes through SCCT to determine predictors of career indecision among 179 college students. Results indicated that gender; five-factor domains of neuroticism, agreeableness,

conscientiousness and outcome expectations were significant predictors of career indecision.

In another study, Tang, Fouad, and Smith (1999) investigated the role of acculturation, family socioeconomic status, family involvement, occupational interests and career self-efficacy on career choice of Asian American college students (N = 187) by utilizing SCCT. As a result, Asian Americans were influenced by acculturation, family background, and self-efficacy in choosing occupations.

More recently, Rogers, Creed, and Glendon (2008) designed a study to extend the SCCT choice model to the domain of career decision-making and test how personality and social support contribute to the career readiness actions of career planning and exploration. Overall findings of the study indicated that personality and supports are related to the career choice process both directly and indirectly.

In order to test interest and choice hypotheses of SCCT, Lent et al. (2003) conducted a study that included self-efficacy, outcome expectations, interests, social supports and barriers, and choice consideration related to occupations representing Holland's (1997) six RIASEC types in a sample of 769 Italian high school students. Results indicated general support, across Holland types, for the hypotheses that self-efficacy and outcome expectations jointly predict interests, and that interests mediate the relations of self-efficacy and outcome expectations to choice consideration. In

contrast to predictions of SCCT, social supports and barriers related to choice consideration indirectly through self-efficacy rather than directly.

Constantine, Wallace, and Kindaichi (2005) examined the degree to which African American high school students' (N = 151) perceptions of career barriers and parental support predicted their career certainty and career indecision based on SCCT. Accordingly, perceived occupational barriers were positively predictive of career indecision, and perceived parental support was positively related to career certainty. Results confirmed the hypotheses of SCCT regarding contextual variables in the career decision-making process.

Another partial test of applicability of SCCT to career choice behavior was performed to evaluate the influence of personal and contextual factors on career decision making process (Weiss, 2000). More specifically, aim of the study was to clarify the role of career decision-making self-efficacy, career outcome expectations, and perceived career barriers on career indecision in a sample of college students (N = 460). Findings of the study revealed that lower career decision-making self efficacy was found to be associated with both increased career indecision and greater perceived barriers. Higher perceived barriers were also related to increased career indecision. Thus, career decision-making self-efficacy and perceived barriers were found to significantly predict career indecision across the overall sample. Consequently, it can be inferred that aforementioned results of the studies mostly

provide support for the utility of SCCT in understanding career decision making process as well as career choice behavior.

2.3 Demographic Variables and Career Indecision

Many studies have investigated demographic variables in relation with career indecision. Thus, the relationships with such demographic variables as gender, age, grade levels and academic achievement were more commonly examined by the construct of career indecision along with many intra-personal and interpersonal variables.

Among demographics, gender is more frequently investigated variable. Even though studies that evaluated gender difference have repeatedly reported no difference on career indecision (Browne, 2005; Creed, Patton, & Prideaux, 2006; Guerra & Braungart-Rieker, 1999; Kang, 2009; Osipow, Carney, & Barak, 1976; Taylor, 1982, Weiss, 2000), a small number of them have shown that females have experienced higher career indecision than males (e.g., Creed, Patton, & Bartrum, 2004; Turkson, 2003). For example, a study conducted with high school students revealed that senior high school female students had significantly higher mean score on Career Indecision Subscale of Career Decision Scale than male students (Creed et al., 2004).

Studies investigating the role of age on career indecision have consistently found a negative relation between age and career indecision. For example, Ng and Feldman (2009), as a part of their study, examined the correlation between age and career

indecision among Chinese college students and reported a moderate negative correlation. In addition, Rohner, Rising, and Sayre-Scibona (2009) reported a significant correlation between career indecision and age of the female participants in the negative direction. Results regarding negative relationship between age and career indecision (e.g., Kinnier, Brigman, Noble, 1990; Peng & Herr, 2002) consistent with theoretical arguments which have stressed on developmental stages and career maturity (Crites, 1978; Super, 1957). In contrast to studies reported negative correlation between age and career indecision, few of the findings presented no significant relationship between them (e.g., Abu Talib & Kit Aun, 2009). Naturally, it should be considered that age and grade level are likely to be highly correlated. Thus, results of studies investigated the association between grade levels and career indecision similar to results of the studies examined the relationship between age and career indecision like younger students reported higher career indecision than older students (e.g., Guerra & Braungart-Rieker, 1999; Peng & Herr, 2002).

In general, academic achievement was evaluated by means of cumulative grade point average (CGPA). With regard to academic achievement, as concluded Hall and Kelly (1995) results of the studies seemed to be contradictory. For example, Osipow and Waddell (1980) reported a negative correlation between career indecision and grade point average in a sample of college students (as cited in Osipow, 1987). Likewise, Daggit (1996) supported a negative relationship between CGPA and career indecision. On the other hand, more recent studies found a positive correlation

between CGPA and career indecision (e.g., Abu Talib & Kit Aun, 2009). Thus, it does not possible to make a constant conclusion about the influence of academic achievement on career indecision.

2.4 Factors Contributing to Career Indecision

An extensive amount of research has been conducted to expand the understanding of career indecision and its contributing factors. Therefore, numerous intra-individual and interpersonal factors have been found to influence career indecision like locus of control (e.g., Ng & Feldman, 2009; Saunders, 1997; Taylor, 1982; Taylor & Popma, 1990), trait and state anxiety (e.g., Corkin, Arbona, Coleman, & Ramirez, 2008; Fuqua, Seaworth, & Newman, 1987), decision-making styles (e.g., Mau, 1995; Osipow & Reed, 1985), hope (e.g., Woodbury, 1999), self-esteem (e.g., Emmanuelle, 2009; Germeijs & De Boeck, 2002), fear of commitment (e.g., Leong & Chervinko, 1996), depression (Saunders, Peterson, Sampson, & Reardon, 2000), irrational beliefs (e.g., Stead, Watson, & Foxcroft, 1993), perfectionism (e.g., Leong & Chervinko, 1996; Page, Bruch, & Haase, 2008), identity formation (e.g., Guerra & Braungart-Rieker, 1999). Personality is also one of the concepts researchers have studied when considering factors affecting career indecision. Personality traits are generally operationalized by the Big Five traits of neurotism, extraversion, openness to experience, agreeableness and conscientiousness (e.g., Feldt & Woelfel, 2009; Page et al., 2008).

Such family factors on career indecision have been investigated as parental attachment (e.g., Emmanuelle, 2009), psychological separation (e.g., Santos & Coimbra, 2000; Tokar, Withrow, Hall, & Moradi, 2003), perceived family conflict (e.g., Constantine & Flores, 2006), family relationship (e.g., Constantine & Flores, 2006; Dodge, 2001; Guerra & Braungart-Rieker, 1999), and perceived parental support (e.g., Constantine, Wallace, & Kindaichi, 2005; Nota, Ferrari, Solberg, & Soresi, 2007).

In addition, many career related factors like vocational maturity (e.g., Creed, Prideaux, & Patton, 2005), career decision making self-efficacy (e.g., Betz & Klein-Voyten, 1997; Taylor & Popma, 1990), career salience (e.g., Taylor & Popma, 1990), career outcome expectations (e.g., Betz & Klein-Voyten, 1997; Feldt & Woelfel, 2009), dysfunctional career thinking (e.g., Saunders et al., 2000), fear of success (e.g., Staley, 1996; Taylor, 1982), vocational self-concept (e.g., Tokar et al., 2003), career aspiration (e.g., Constantine & Flores, 2006), perceived career barriers (e.g., Constantine et al., 2005), and career certainty (e.g., Constantine & Flores, 2006) contributed to career indecision to some extent.

2.5 Research on Proposed Model Variables

As a result of literature review, it is possible to conclude that multiple factors contribute to career indecision to some extent. Accordingly, a set of variables was selected for the inclusion in the proposed path model has been identified as the

significant factors to explain the career indecision as well as the major constructs of the SCCT as self-efficacy and outcome expectations.

The following part of the literature review will summarize many research findings on career indecision and the study variables. In the present study, locus of control and parental attitudes (acceptance/ involvement, psychological autonomy, strictness/ supervision) were regarded as exogenous variables which were not predicted by any other study variables. Career decision-making self-efficacy and career decision-making outcome expectations were regarded as endogenous variables which were predicted by at least one study variable.

2.5.1 Locus of Control and Career Indecision

Aforementioned, locus of control viewed as one of the central and reliable predictors of the career decision process and career development of college students (Brusoski, Golin, Gallagher, & Moore, 1993; Luzzo & Ward, 1995). Taylor (1982) explained the role of locus of control in the career development process as

> individuals perceiving an internal locus of control tend to view themselves as having more control over and personal responsibility for the direction of their lives than do externals, who are likely to feel themselves powerless to control events. Thus, internally locused individuals may take both an active role in the direction of their educational/ vocational futures and personal

> responsibility for decision making and for gathering the kinds of information necessary to such decisions. Externals, on the other hand, may believe that vocational plans are largely influenced by chance factors and thus fail to invest time and energy in information-gathering and vocational decision-making activities. (Taylor, 1982, p. 319-320)

Findings of the Taylor's (1982) study that investigated the relationships among locus of control, fear of success and vocational indecision in a group of 201 undergraduate students showed a positive relationship between external locus of control and career indecision. Thus, vocationally undecided students were found to be more external in their locus of control than decided students.

In another study, Woodbury (1999) demonstrated similar findings by examining the relationship of anxiety, locus of control, hope and career indecision among 244 African American university students. Results of the correlational analysis revealed that both external dimensions of locus of control, powerful others and chance were significantly correlated with career indecision.

Likewise, Saunders (1997) reported a positive and significant correlation between external locus of control and career indecision in a group of 215 undergraduate students.

In a sample of graduate students (N = 207), Simon (1990) investigated the association among locus of control, career concepts and career indecision. Results verified the previous findings in the similar vein as career undecided graduate students are more external in their locus of control than career decided students.

Consequently, previous studies carried out with different samples have consistently revealed similar findings as external locus of control is related to career indecision in a positive manner.

2.5.2 Parental Influence on Career Indecision

The career development literature acknowledges the influence of parents on career development of adolescents and young adults (Osipow, 1983; Roe, 1957; Super, 1957). For instance, Lopez and Andrews (1987) have conceptualized career indecision as "the outcome of a larger set of transactions between the person and the family" (p. 65). Accordingly, many researchers emphasized the importance of determining the role and influence of parents to understand the complexities of career development (e.g., Vondracek, Lerner, & Schulenbergerg, 1986). The influence of several parental variables such as parenting styles, parental attachment, parental autonomy, and parental support etc. on individuals' career development has gained the interest of several researchers.

In their partial examination of Social Cognitive Career Model (Lent et al., 1994), Ferry, Fouad, and Smith (2000) investigated the parental variables included encouragement; one of the indicator of parental involvement and control; one of the parenting style as background contextual variables. Results on a sample of 791 undergraduate students showed that parental encouragement in math and sciences was found to be significantly effective in learning experiences. In contrast, parental control did not lead to any significant path.

Guerra and Braungart-Rieker (1999) investigated parental (both maternal and paternal) acceptance and encouragement of independence as predictors of career indecision in a group of 169 undergraduate students. Overall results of the study indicated that mother's encouragement of independence was a significant predictor of career indecision. Thus, less maternal encouragement of independence lead to more career indecision. On the other hand, other parental variables as mother's acceptance, father's acceptance, and father's encouragement of independence did not have any significant contribution on career indecision.

In another study conducted by Huang (1999) investigated the utility of Lent et al.'s (1994) Social Cognitive Career Theory to understand the career indecision by means of structural equation modeling. In this study, family relationship (cohesion and expressiveness) and family structure (independence and control) variables were considered in the background context of proposed model. The sample of the study consisted of 268 university students. Two separate models were tested for male and

female students. According to the results of the study, family relationship and family structure did not have any direct effect on career indecision for females. In contrast to results of the female sample, there was a direct effect of family relationship on chronic indecision and a direct effect of family structure on developmental indecision observed among males.

Tokar, Withrow, Hall, and Moradi (2003) investigated the role of psychological separation and attachment security variables in students' experience of career indecision using structural equation modeling. Results of this study based on a sample of 350 university students revealed that some components of separation and attachment security related to career indecision. Accordingly, two of the six predictors, attachment anxiety and maternal separation, had significant relationships with all three indecision constructs. In addition, maternal conflictual independence was significantly related to both indecision constructs that include chronic components (i.e., career indecisiveness and global indecision). Finally, paternal separation had a significant and negative relationship with the career indecisiveness construct.

Constantine, Wallace, and Kindaichi (2005) explored the role of perceived parental support and perceived occupational barriers on both career indecision and career certainty in a group of 151 high school students using Social Cognitive Career Theory as a framework of their study. Their results revealed that perceived parental support was a positive significant predictor of career certainty but not for career

indecision. On the other hand, perceived career barriers were significantly related to career indecision but not related to career certainty.

Kinnier, et al. (1990) conducted a study to understand the role of enmeshment which refers to "a familial environment in which members are undifferentiated from or overly dependent on each other" (Minuchin, Montalvo, Guerney, Rosman, & Schumer, 1967, as cited in Kinnier et al., 1990, p. 309) on career indecision (N = 604). Accordingly, significant negative relationship was found between career indecision and individuation. Hence, more decided students tended to be more individuated.

Santos and Coimbra (2000), analyzed the association between psychological separation, developmental career indecision and generalized indecision. Psychological separation from mother and father was evaluated as conflictual independence and emotional independence. The research was carried out by 418 senior high school students. The correlation analyses among the studied variables showed significant and positive relationships between developmental career indecision and emotional independence from mother and father. Other significant positive relationships were observed between generalized indecision and conflictual independence from mother and father and emotional independence from mother.

Guay, Ratelle, Senécal, Larose, and Deschênes (2006) designed a three-year longitudinal study with college students (N = 325) to test the validity of two types of career indecision (developmental and chronic) over time and to investigate such

correlates of these types of indecision as self-efficacy, autonomy, control and autonomy support from parents and friends. Overall, results of the study indicated that individuals in the decided group were more autonomous and perceived less control from peers and parents as well as more autonomy support from peers than individuals in the chronically undecided group. Developmentally undecided individuals also reported higher levels of perceived autonomy than individuals in the chronically undecided group. In addition, there was no difference on perceived autonomy between the decided and developmentally undecided groups.

In a more recent study, Rohner, Rising, and Sayre-Scibona (2009) examined the relationship between career indecision, self-reported psychological adjustment, and remembrances of maternal and paternal acceptance and behavioral control in childhood with respect to gender. Participants were 126 undergraduate students. Specifically, they found that remembered parental (both maternal and paternal) acceptance in childhood and current psychological adjustment of females were significantly and positively associated with career indecision, but not males. Moreover, no relationship was obtained between remembered parental (both maternal and paternal) control in childhood and career indecision among males and females.

Although the importance and influential role of the family, more specifically parents on career development has been emphasized by some of the traditional theories of

career development (Roe, 1957; Super, 1957), the results of the studies examining parental influences on career indecision seems somewhat mixed.

2.5.3 Career Decision Making Self-Efficacy and Career Indecision

A person's beliefs about his or her ability to successfully perform a given task or behavior termed as self-efficacy beliefs which are seen as mediators between behavior and behavior chance (Bandura, 1977).

> Efficacy expectations determine whether or not behavior will be initiated, how much effort will be expended, and how long behavior will be sustained in the face of obstacles and aversive experiences. Efficacy expectations, and their consequences, vary on dimensions of level, strength, and generality. Level refers to the degree of difficulty of tasks the individual feels capable of attempting. Strength refers to the durability of efficacy expectations when the individual is confronted with disconfirming or dissuading experiences. Generality involves the degree to which expectations of personal efficacy transfer to different behavioral domains. (Hackett & Betz, 1981, p. 328)

After Betz and Hackett's (1981) pioneering work, career decision-making self-efficacy has been mostly investigated with career indecision by several researchers. For example; Taylor and Popma (1990), in a study of 407 college students, examined the relationship among career decision-making self-efficacy, career salience, locus of control, and career indecision. They reported a moderate negative relationship career

decision-making self-efficacy and career indecision and noted that the only variable to make a significant contribution to the prediction of career indecision was career decision-making self-efficacy.

Mathieu, Sowa and Niles (1993) examined career decision-making self-efficacy and career indecision in a study of 101 college females. They found that women who were undecided about their occupational choice scored lower on measures career decision-making self-efficacy than women expressed a preference for a nontraditional or gender-neutral occupation.

Gillespie and Hillman (1993) found a negative relationship between career decision making self-efficacy and career indecision among 224 high school students. In addition, they reported that as self-efficacy for performing tasks associated with career decision making increased, career indecision decreased.

Another study was conducted by Betz and Klein-Voyten (1997) aimed to examine the extent to which career decision-making efficacy and outcome expectations are related to career indecision and exploration intentions among a group of 350 university students. The findings of the study revealed a negative correlation between career outcome expectations and career indecision in men, however, such a significant correlation did not found in women. In addition, career decision-making self-efficacy and career outcome are positively correlated both in men and women sample.

Weiss (2000) designed a study to examine gender and racial/ ethnic differences in perceived career barriers, career decision-making and vocational indecision within the framework of SCCT in a sample of college students (N = 460). Gender and racial/ ethnic differences were found in both total barrier scores. Higher perceived barriers were associated with both career decision-making self-efficacy and greater vocational indecision. Lower career decision-making self-efficacy was associated with increased indecision. In addition, career decision-making self-efficacy was found to be the most effective predictor of career indecision in the SCCT. Considering the previous research findings, it is possible to conclude that career decision-making self-efficacy and career indecision have consistently been found to be negatively correlated.

2.5.4 Career Decision-Making Outcome Expectations and Career Indecision

Another important mediator variable of SCCT as well as the current study is outcome expectations. “Outcome expectations refer to the belief that, given the performance of a particular behavior, certain results will follow”. An outcome expectation is thus “a belief about the consequences of behavior” (Hackett & Betz, 1981, p. 328).

In order to assess outcome expectations and exploratory intentions, Betz and Klein-Voyten (1997) designed a study aimed to investigate the extent to which career decision-making efficacy and outcome expectations relate to career indecision and exploration intentions among university students (N = 350). As a part of this study

they developed Career Outcome Expectations and Exploratory Intentions Scale. The findings of the study showed that the correlations between goal selection and academic outcome, goal selection and career outcome and total CDMSE score and career outcome are statistically greater in men than in women. In addition, higher levels of career decision-making self-efficacy are positively related to exploratory intentions and are related to lower levels of indecision.

Using the SCCT as a framework, Weiss (2000) was designed a study to examine gender and racial/ ethnic differences in perceived career barriers, career decision-making and vocational indecision. A sample of college students (N = 460) completed the Career Decision Self-Efficacy Scale-Short Form, Career Outcomes Expectations Scale, Career Decision Scale and Career Barriers Inventory-Revised. Accordingly, perceived barriers and career decision-making self-efficacy were found significant predictors of career indecision. However, regression analysis revealed that career decision-making outcome expectations was not a predictor of career indecision. Correlations among the study variables showed that no significant relationship existed between career indecision and career decision-making outcome expectations in all sample. However, separate correlation analyses for males and females revealed a significant negative relationship between career indecision and career decision-making outcome expectations for males, but not for females.

Social cognitive variables of learning experiences in the form of racist and sexist events in relation to career decision-making self-efficacy, career outcome

expectations and career indecision were examined in a group that composed of 108 African American women (Lemon, 2010). Results revealed that career indecision and career decision making self-efficacy did not correlate significantly. In addition, career indecision and career outcome expectations did not correlate, too. However, a significant and positive relationship was reported between career decision-making self-efficacy and career outcome expectations.

Thus, it is possible to conclude that in the parallel direction of the literature, an inverse relationship between career decision-making outcome expectations and career indecision was generally obtained. On the other hand, overall a positive relationship was reported between career decision-making outcome expectations and career decision-making self-efficacy.

2.6 Studies on Career Indecision in Turkey

In the last two decade there has been an increase in research on career counseling in Turkey. Studies in career counseling in Turkey, mostly interested in the concept of vocational maturity (e.g., Bacanlı, 1995; Evren, 1999; Uskaner, 1999), and factors that affect the career choice (e.g., Abişeva, 1997; Büyükgöze Kavas, 2005; Genç, Kaya, & Genç, 2007; Köksalan, 1999; Özyürek & Kılıç-Atıcı, 2002). Other important concepts of career counseling such as career decision-making self-efficacy (e.g., Bozgeyikli, 2005; Bozgeyikli, Bacanlı, & Doğan, 2009), career search self-efficacy (e.g., Bacanlı, 2006a), career indecision (e.g., Çakır, 2003; Hamamcı &

Hamurlu, 2005), individual and group vocational guidance interventions (e.g., Aydın, 2002; Durlanık, 1998; Efilti, 1998; Öksüz, 2001) and vocational guidance services (e.g., Koçak, 2001; İşmen Gazioğlu, Bekçi, Yavuz, & Çayırdağ, 2007), career beliefs (Ulu, 2007), career values (Korkut-Owen et al., 2009) has gained the research attention in Turkey. More recent studies in the field of career counseling include career decision-making difficulties of adolescents (Bacanlı, 2008), career decision of high school students related to their parenting and parent attachment styles (Cenkseven, Kırdök, & Işık, 2008), irrational beliefs in career choice of high school students (Yılmaz Erdem & Bilge, 2008), predictors of career decision making self-efficacy of 8th graders (Bozgeyikli, Bacanlı, & Doğan, 2009).

Although there are several investigations with secondary and mostly high school students, only a small number of studies have been conducted with university students in the field of career counseling in Turkey. These limited number of studies (Abişeva, 1997; Büyükgöze-Kavas, 2005; Kağnıcı, 1999; Koç, 1991; Köksalan, 1999; Sarıkaya & Khorshid, 2009; Uysal, 2001) generally examined the variables that affect university students' career choice prior to university like high school type, parents' educational level, socioeconomic status, university entrance exam scores, and career guidance services, etc. In addition, vocational maturity, career commitment, career development needs, and career values of university student were examined (Balın, 2008; Bektaş & Demir, 2004; Pişkin & Gerçek, 2008; Yerin Güneri, Owen, Tanrıkulu, Dolunay, & Büyüköze-Kavas, 2009).

In contrast to Europe and the U.S. there have been few empirical studies on career indecision in Turkey and all of them were carried out with high school students. For example, Çakır (2003) investigated the effect of a 10-week career guidance program on career indecision levels of high school students. The career guidance program was developed based on an eclectic approach including developmental approaches, trait-and-factor approaches, and cognitive information processing approach. In this study, researcher has developed Career Decision Inventory to assess the first grade high school students' level of career indecision. The results of the study revealed significant differences between pre-test and post-test scores of the experimental group subjects (10 male, 9 female). However, no difference was found between the pre-test and post-test results of the control group (10 male, 9 female).

In a study conducted with 200 high school students and their parents in Gaziantep, Hamamcı and Hamurlu (2005) examined the relationship between level of knowledge about career development and attitudes of parents and the help they provided to their children for career development and career indecision. Thus, study had two groups of participants as parents and their children. In order to collect data, Career Development Knowledge Test and Career Development Helping Scale were administered to parents; Career Decision Inventory was administered to the children. Results of the study indicated that grade level and receiving career counseling were found to be the most significant predictors of career indecision. Accordingly, students who are at higher grade levels and who receive career counseling, experience less career indecision.

The relationship among career indecision, general irrational beliefs, irrational career beliefs, and vocational maturity of high school students (N = 282) were investigated by Hamamcı and Esen Çoban (2007). The results of the study revealed that no significant relationships among irrational beliefs, vocational maturity, and career indecision. However, high positive correlation between irrational career beliefs and career indecision was found. Moreover, irrational career beliefs were negatively and moderately correlated with vocational maturity. The results showed that general irrational beliefs were not the strong predictor of vocational maturity and career indecision; however, irrational career beliefs explained 55% of variance of career indecision and 26% of vocational maturity.

Cenkseven, Kırdök, and Işık (2008) investigated career decision status of high school students (N = 382) considering parenting styles and parental attachment. Overall results of the study demonstrated that students who experienced a medium or high degree of attachment to their parents were found more decided. In addition, students from more authoritative and authoritarian families were found more decided than ones from neglectful and indulgent.

More recently, Kırdök (2010) examined the effectiveness of a career decision making program, which based on cognitive information processing approach, on career indecision, irrational career beliefs and vocational maturity level of 9th grade high school students. The sample of the study composed of an experiment (15 female, 14 male) and control group (17 female, 13 male). A pre-test post-test

experimental research design was followed. Each group session was last 90 minutes during 10 week. Results indicated significant differences between scores of pre-test and post-test like that career indecision and irrational career beliefs levels of the students in experimental group decreased, on the other hand, vocational maturity level of the students increased.

2.7 Summary

Career indecision has gained researchers attention as a major concern of career counseling for many years. Many career choice and development approaches have been generated to explain career development and decision making process. In this chapter, major theories and models of career choice and development were classified as emerged and emerging career choice and development theories. Parsons' Trait and Factor Theory, Theory of Work Adjustment, Holland's Career Typology, Super's life-span/ life-space theory, Gottfredson's Theory of Circumscription and Compromise, and Krumboltz's Learning Theory of Career Counseling were summarized as emerged theories and Cognitive Information Processing Approach, Brown's Values-Based Holistic Model of Career and Life-Role Choices and Satisfaction, Ecological Model of Career Development, and Career Construction Theory were summarized as emerging theories. Social cognitive career theory (Lent et al., 1994, 2000) is one of the emerging approaches that were utilized as the framework of the present study. Various studies have been conducted to understand the factors that contributed to career indecision. Accordingly, numerous intra-

individual, interpersonal, and environmental factors have been identified abroad as significant predictors of career indecision such as anxiety, locus of control, career decision-making self-efficacy, vocational maturity, career outcome expectations, personality, parental relationship, psychological separation, parental support. In the current study, locus of control, perceived parental attitudes (perceived parental acceptance/ involvement, perceived parental strictness/ supervision, and perceived parental psychological autonomy), career decision-making self-efficacy, and career outcome expectations were included to predict career indecision.

CHAPTER III

METHOD

This chapter provides information regarding the methodological procedures followed throughout the study. The chapter starts with explanations about the sampling procedure and characteristics of the participants. Then, the descriptions of the data collection instruments are presented by their psychometric properties, reliability and validity studies. Lastly, data collection and data analysis procedures are presented along with potential limitations at the end of the chapter.

3.1 Sampling Procedure and Participants

Data were collected during spring semester of 2009-2010 academic year. While collecting the data, proportional quoata sampling (Trochim & Donnelly, 2007) was used. Thus it was intended to reach 5 % of the students from each faculty and class. Accordingly, the METU Activity Report 2008 was considered to determine the approximate number of the students in each faculty with respect to class. The participants of the current study were 742 undergraduate students enrolled in five different faculties at Middle East Technical University (METU). After the data cleaning procedure 723 participants constituted the sample of the present study. Participants excluded from the sample were three students from Faculty of

Engineering and sixteen students from Faculty of Arts and Sciences. Since, the number of participants from the Faculty of Arts and Sciences was less than the predetermined criteria of 5%, the sampling method used in this study could be regarded as convenience sampling.

Of the 723 participants, 338 (46.7 %) were female, 383 (53%) were male and 2 (0.3%) did not indicate gender. The class was distributed as 225 (31.1 %) freshmen, 160 (22.1 %) sophomores, 169 (23.4 %) juniors, 167 (23.1 %) seniors, and 2 (0.3 %) of the participants did not report any class. All faculties of METU were represented in the sample. Out of all participants, 68 (9.4 %) were from Faculty of Architecture, 84 (11.6 %) were from Faculty of Arts and Sciences, 140 (19.4 %) were from Faculty of Economics and Administrative Sciences, 125 (17.3 %) were from Faculty of Education, 303 (41.9 %), were from Faculty of Engineering, and 3 (0.4 %) students did not indicate any faculty. The age of the participants ranged from 17 to 27, with a mean of 21.39 (S*D* = 1.5). The cumulative grade point average (CGPA) of the participants was ranged between .59 and 4.00, with a mean of 2.66 (*SD* = .68).

3.2 Data Collection Instruments

Participants were given a survey package including a short Demographic Information Form, Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, & Koschier, 1976), Career Decision Self-Efficacy Scale- Short Form (CDSE-SF; Betz & Klein, 1996; Betz, Hammond, & Multon, 2005), Career Decision-Making Outcome

Expectations and Exploratory Intentions Scale (OEX-EI; Betz & Klein-Voyten, 1997), Parental Attitude Scale (PAS; Lamborn, Mounts, Steinberg, & Dornbusch, 1991), and Rotter's Internal External Locus of Control Scale (IELCS; Rotter, 1966), respectively.

3.2.1 Demographic Information Form

To gather basic demographics of the participants, the researcher developed a short demographic information form which was placed on the first page of the survey package. The form included questions regarding gender, age, cumulative GPA, class, faculty, and department or program.

3.2.2 Career Decision Scale (CDS)

Career Decision Scale was developed by Osipow, Carney, Winer, Yanico, and Koschier (1976) to assess the construct of career indecision. It is a 19 item scale including an open-ended item. The first 18 items of the scale rating on a four point Likert type scale as "exactly like me" (4), "very much like me" (3), "only slightly like me" (2), and "not at all like me" (1). The first two items (1 and 2) form the Certainty Subscale and the remaining 16 items (3 to 18) constitute the Indecision Subscale. The last item of the scale was designed as open-ended which offers an opportunity to participants to list further obstacles for career indecision not mentioned in the scale items.

The scores of the Indecision Subscale range between 16 and 64, with the higher scores representing higher level of indecision (Osipow, 1987). Possible scores obtained from the Certainty Subscale range from 2 to 8 and high scores indicate a high degree of certainty about career decision. The CDS has been widely translated and adapted to many languages such as French, Hebrew, Korean, Portuguese, Spanish, and Swedish (Osipow & Winer, 1996).

Osipow et al. (1976, 1987) examined the validity and reliability of the CDS. To determine the factor structure of the Indecision Subscale, Osipow, Carney, and Barak (1976) conducted a principal factor analysis with varimax rotation on a sample of 837 university students. Four factors explained the %81.3 of the total variance. These factors were labeled as "lack of structure and confidence, presence or perception of some external barriers, approach-approach problem and some kind of personal conflict regarding how to make the decision" (Osipow et al., 1976, p. 239).

To date various studies have examined the factor structure of the Indecision Subscale items (items 3 to 18) by using a wide range of extraction and rotation methods. For instance, Osipow et. al. (1976) performed factor analysis by using principal factor analysis with varimax rotation, Shimizu, Vondracek, Schulenberg and Hostetler (1988) used and recommended maximum likelihood extraction with promax (oblique) rotation and recently principal component analysis with varimax rotation was used by Corkin, Arbona, Coleman, and Ramirez (2008). At the same time, confirmatory factor analysis performed by some of the researchers to test the factor

structure of the scale (Feldt et al., 2010; Martin, Sabourin, Laplante, & Coallier, 1991; Schulenberg, Shimizu, Vondracek, & Hostetler, 1988). However, majority of them failed to find the original four-factor structure of the CDS's Indecision Subscale (e.g. Kazdin, 1976; Slaney, Palko-Nonemaker, & Alexander, 1981). In consequence, findings regarding the factor structure of the subscale far away from stability and varied from one-factor to five-factor solutions (e.g. Feldt et al., 2010; Osipow et al., 1976; Rogers & Westbrook, 1983).

As a result of inconsistent factor structure across previous studies, debates about application of the different factor analysis, and concerns regarding factors composed of only two or three items, Osipow (1987) has suggested the use of the total score of Indecision Subscale as an overall index of career indecision. Hence, most of the researchers preferred to use Career Indecision Subscale as unidimensional (Betz & Klein-Voyten, 1997; Constantine, Wallace, & Kindaichi, 2005; Guay, Ratelle, Senécal, Larose, & Deschênes, 2006; Kinnier, Birgman, & Noble, 1990; Taylor & Popma, 1990).

In addition, Osipow et al. (1976, 1987) provided the evidence of reliability of the scale by reporting internal consistency and test-retest reliability. The reported Cronbach alpha (α) coefficients ranged from .86 to .89 for indecision items and .79 to .90 for certainty items (Sabourin & Coallier, 1991; Savickas & Carden, 1992). Osipow et al. (1976) obtained two different retest correlations as .90 and .82 for the

Indecision Subscale based on two-week interval from two separate sample of university students (N = 50, N = 59).

3.2.3 Career Decision Self-Efficacy Scale- Short Form (CDSE-SF)

The short form of the Career Decision Self-Efficacy was developed by Betz, Klein and Taylor (1996) to measure "an individual's degree of belief that he or she can successfully complete tasks necessary to making career decisions" (p. 48). The short form used in this study consisted of 25 items constructed by eliminating 5 of the 10 items from each of the five subscales from the 50 item version those are self-appraisal (items 5, 9, 14, 18, 22), occupational information (items 1, 10, 15, 19, 23), goal selection (items 2, 6, 11, 16, 20), planning (items 3, 7, 12, 21, 24), and problem solving (items 4, 8, 13, 17, 25). The CDSE-SF reflected five different career choice competencies developed based on Crites's model of career maturity. Items are rated on a Likert scale ranged as "no confidence at all" (1), "very little confidence" (2), "moderate confidence" (3), "much confidence" (4), and "complete confidence" (5) (Betz, Hammond, & Multon, 2005). The possible total scores change between 25 and 125; higher scores on CDSE-SF indicate greater levels of self-efficacy.

The factor structure of the scale was examined by many researchers as an evidence for the construct validity of the scale. Firstly, Taylor and Betz (1983) performed a principal components analysis (PCA) with varimax rotation to determine the factor structure of the 50 items of the CDSE. As a result of PCA, five factors were

extracted and accounted for 52% of the total variance. However, items loading on the factors were not clear. In addition, to evaluate and determine the factor structure of the short form of the scale, Betz, Klein, and Taylor (1996) conducted PCA with orthogonal rotation. Accordingly, five factors eigenvalues greater than one that accounted for 62% of the total variance were found However, distribution of the items did not confirm the theorized five items in each five factor solution. Hence, as stated by Betz et al. (1996) five-factor structure was not completely supported in their study. Various studies produced similar results about the factor structure of the scale (Peterson & delMas, 1998; Taylor & Popma, 1990). Thus, using the scale as a generalized measure of career decision-making self-efficacy has been recommended (Robbins, 1985; Taylor & Popma, 1990).

Betz et al. (1996) reported the internal consistency reliability of the short form ranged from .73 (Self-appraisal) to .83 (Goal selection) for the subscales and .94 for the total score. Further, Luzzo (1993) reported a six-week test-retest coefficient of .83 for the CDSE (50-item version) total score.

3.2.4 Career Outcome Expectations and Exploratory Intentions Scale (OEX-EI)

Career Outcome Expectations and Exploratory Intentions Scales were developed by Betz and Klein-Voyten (1997) to assess career decision-making and academic outcome expectations also exploratory intentions. In general, personal beliefs about

probable response termed as outcome expectations which involved the imagined consequences of performing particular behaviors like that “If I do this, what will happen?” (Lent et al., 1994, p. 83). Outcome expectations regarding career decision-making refer to beliefs regarding the long term consequences of success in specific educational or career decision-making behaviors (Betz & Klein-Voyten, 1997, p. 181). The five-item Academic Outcome Scale (items 1, 2, 3, 4, 5) aimed to assess the beliefs regarding the relevance of educational performance to future career options and success. Likewise, outcome expectations regarding career decision-making behaviors (items 6, 7, 8, 9) were defined as “the belief that those behaviors would be useful to subsequent career options and decisions” (Betz & Klein-Voyten, 1997, p. 182). The five-item Exploratory Intentions Scale (items 10, 11, 12, 13, 14) assessed career exploratory plans or intentions which considered as a goal. Five-point Likert scale used to measure the all responses ranging as “strongly agree” (5), “moderately agree” (4), “aren’t sure or neutral” (3), “moderately disagree” (2), and “strongly disagree” (1).

Coefficient alpha values were reported as .77 (educational outcome), .79 (career outcome) and .73 (exploratory intentions). “Separate cumulative scores were calculated for the five educational outcome expectations, the four career decision-making expectations and the five exploratory intentions” (Betz & Klein-Voyten, 1997, p. 182). Thus, the educational outcome expectations scores changed between 5 and 25, the range of the total score of career decision-making expectations changed

between 4 and 20, and the total score of exploratory intentions vary from 5 to 25. Higher scores indicate high level of expectations or intentions in each scale.

3.2.5 Translation Procedure of the CDS, CDSE-SF, and OEX-EI

The three instruments used in this study, Career Decision Scale (CDS), Career Decision Self-efficacy Scale Short-Form (CDSE-SF) and Career Decision-Making Outcome Expectations and Exploratory Intentions Scales (OEX-EI), that were originally developed in English, translated and adapted into Turkish. Before starting the translation and adaptation studies, the necessary permissions were obtained from the publisher (PAR; Psychological Assessment Resources Inc.) of the CDS and corresponding author (Prof. Dr. Nancy Betz) of the CDMSE-SF and OEX-EI scales via e-mail.

The steps that were followed throughout the translation process were as follows (Figure 3.1). First, based on Ægisdóttir, Gerstein, and Canel-Çınarbaş (2008) suggestion about independent translation of scales by two or more person, the instruments were given to four experts (two advanced doctoral level counseling students and two English Language Experts- as one having masters degree in English Literature and the other in English Language Teaching) independently for translation into Turkish. Second, the translations made by four experts were compared and best translation for each item was picked by the researcher and her advisor. Third, the Turkish versions of the instruments were formed. Fourth, the Turkish and original

English versions of the instruments were given to two professors of Psychological Counseling and Guidance and a professor of Measurement and Evaluation to evaluate the correctness, clarity, wording of the items, and cultural relevancy of the Turkish translated versions of the instruments. According to the feedback received by these three faculty members, some minor changes were made on the Turkish versions of the CDS, CDSE-SF, and OEX-EI. Forth, three separate focus groups were conducted to check the understandability, clarity, and cultural appropriateness of the items of the Turkish versions of the CDS (N = 55) CDSE-SF (N = 55) and OEX-EI (N = 43) with undergraduate students. Few changes suggested by the students regarding the wording of the items in three measures were made.

Back translations of the instruments were purposefully avoided as the adequacy of the translation could be threatened and created both concept and item bias (Van de Vijver & Hambleton, 1996). However, as a requirement of the Permission Agreement of the CDS, back-translation of the scale was done.The back-translation (from Turkish to English) of the CDS was performed by an English language expert currently working as an instructor at an Academic English Program of a private university. The expert was unfamiliar with the English version of the CDS. The back-translation was forwarded to PAR for review. While, back-translation of the CDS 17 items approved, by PAR, two items (12 and 18) were not and PAR asked for revision. According to the suggestions of PAR, necessary revisions were made on the two items. After the revision back-translation of the all items of the CDS has been approved. Consequently, the Turkish version of the CDS was finalized.

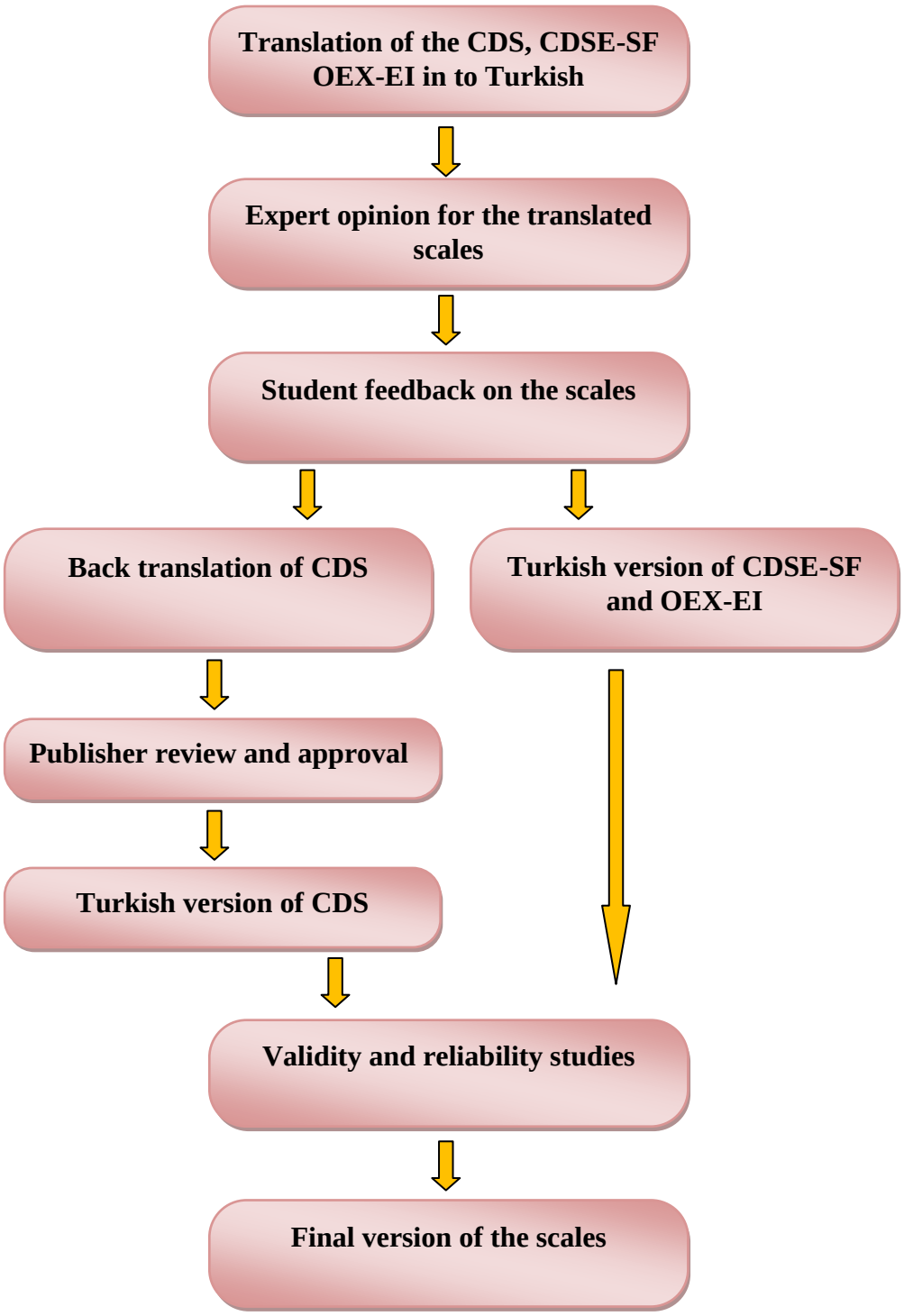


Figure. 3.1 Translation and pilot studies of CDS, CDSE-SF and OEX-EI.

3.2.6 Validity and Reliability of the Turkish Version of CDS

In order to test the basic psychometric properties of the scale a pilot study was carried out with a sample of 336 (112 male, 224 female) undergraduate university students enrolled in different departments of Middle East Technical University. The convenience sampling procedure was used in collecting data. The students involved in the pilot study were not included into the sample of the actual study. The participants age ranged between 18 and 27, with a mean of 21.25 (*SD* = 1.60). The sample of the pilot study was consisted of 109 (32.6 %) freshmen, 85 (25.4 %) sophomore, 72 (21.6 %) junior, 68 (20.2 %) senior and 2 (.6 %) students did not report class. The Career Decision Scale was administered in classroom settings by the researcher.

In order to provide evidence for construct validity of the Career Decision Scale, an exploratory factor analysis (EFA) was conducted. Prior to factor analysis, the Kaiser-Meyer- Olkin (KMO) measure of sampling adequacy and Barlett's test of sphericity were examined to determine the appropriateness of the data for factor analysis. The KMO value was .881 defined as great, thus it is possible to say that the sample size is adequate for factor analysis (Field, 2009; Hutcheson & Sofroniou, 1999). In addition, the Barlett's test was significant [χ^2 (120) = 15552.85, $p < .001$] indicating large enough correlations between the items to conduct EFA. As suggested by George and Mallery (2001) no values lower than recommended .25 was observed in the corrected total correlation among all the items.

In the present study, as in the original study of Osipow et al. (1976), principal axis factor extraction with varimax rotation was applied to the 16-item Indecision Scale. Considering the recommendations emphasized using multiple methods (e.g. Coovert & McNelis, 1988), in the current study, two common factor retention methods were utilized when deciding on the number of factors: Kaiser's criterion (eigenvalues ≥ 1; Kaiser, 1970) and Cattell's scree test (Cattell, 1966). According to Kaiser's criterion, "only the factors that have eigenvalues greater than one are retained for interpretation" (Ledesma & Valero-Mora, 2007, p. 2). The scree test "involves examining the graph of the eigenvalues and looking for the natural bend or break point in the data where the curve flattens out. The number of data points above the 'break' (not including the point at which the break occurs) is usually the number of factors to retain" (Costello & Osborne, 2005, p. 3).

The results of the EFA revealed four factors eigenvalues greater than 1.00 that were accounted for the 54.7 % of the variance. The first factor accounted for 32.03% of the total variance (eigenvalue 5.76), the second one 9.40% (eigenvalue 1.69), the third one 6.99% (eigenvalue 1.25), and the fourth one 6.30% (eigenvalue 1.13). Factor loadings of the Indecision Subscale items are displayed in Table 3.1 and scree plot in Figure 3.2. Thus, following the varimax rotation, the first component explained the %29 of the variance.

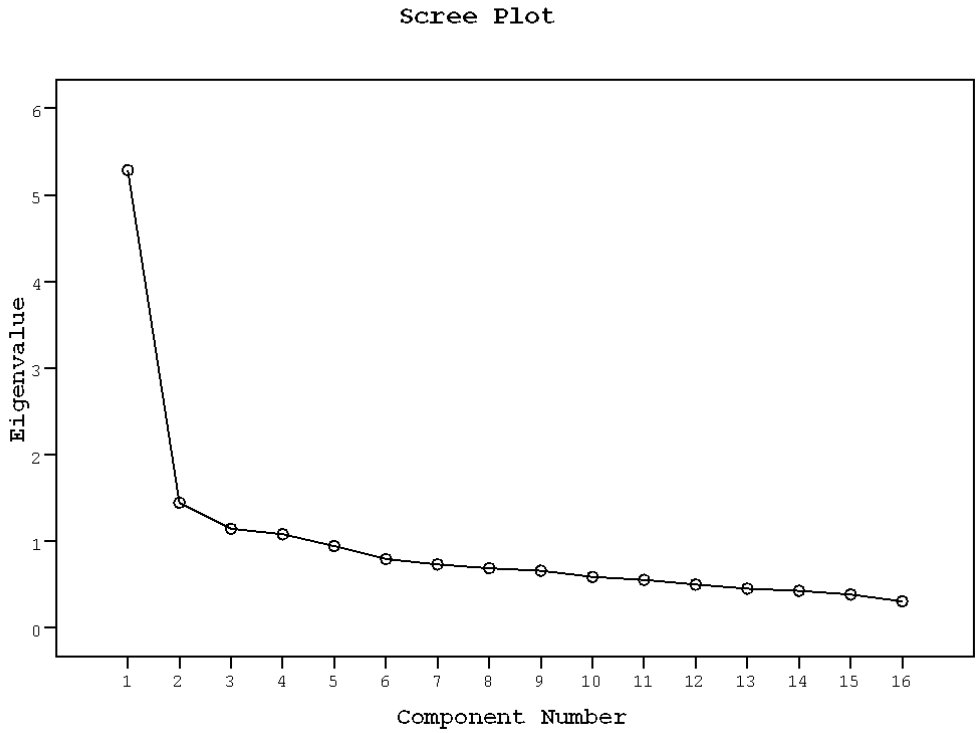


Figure 3.2 Scree Plot of Indecision Subscale.

Table 3.1

Factor Loadings of Indecision Subscale Items

Item number	Factor loadings			
	1	2	3	4
8	.82			
9	.53		.33	
7	.52	.45		
11	.46		.37	
10	.46	.34		.36
13		.78		
14		.60		
18			.56	
17			.54	
16			.45	
15			.39	
12			.39	
4			.32	
3				.64
5	.38			.47
6				.32

Note: Factor loadings < .30 were omitted

In the original study Osipow et al. (1976) presented a four factor structure labeled as lack of structure and confidence, (items: 5, 7, 8, 9, 10, 11, 13, 14, 17) presence or perception of some external barriers, (items: 3, 9, 12, 16, 18), approach-approach (items: 4, 15) and personal conflict (items: 6, 7). Similarly, the results of the factor analysis of the Turkish version of the Indecision Subscale yielded four factors. The

first factor included six items (5, 7, 8, 9, 10, 11), the second four items (7, 10, 13, 14), the third eight items (4, 9, 11, 12, 15, 16, 17, 18) and the forth four items (3, 5, 6, 10). Four items (5, 7, 9, 11) also had double loadings and one item had triple loadings (10). Thus, the distribution of scale items in the Turkish version of the indecision was somewhat different from the original study. Specifically, nine items loaded on the same factors as in original study whereas seven items loaded differently.

In order to provide evidence for criterion-related validity, Career Decision Scale was administered with Personal Indecisiveness Scale (PIS; Bacanlı, 2000, 2006b) in a group of 123 (27 male, 96 female) university students separate from the sample of the pilot study and the actual study. Correlational analyses indicated a large and positive correlation (r = .61) between career indecision subscale and total score of personal indecision as well as a moderate and negative correlation (r = -.34) between career certainty and personal indecision. It was possible to conclude that these significant relationships between the two indecision measures were accepted as evidence for criterion-related validity.

To check the reliability of the scale, the internal consistency and test-retest methods were used. The internal consistency estimate was measured by means of Cronbach alpha coefficient (α). The Cronbach alpha values of the Career Decision Scale were .78 (all items), .86 (Indecision Subscale), and .85 (Certainty Subscale). The test-retest reliability of the scale was calculated in a sample of 66 university students

based on a two-week interval similar to Osipow et al. (1976) study. The correlation coefficients between these two scale administrations were .81 (for all items), .84 (for Indecision Subscale), and .77 (for Certainty Subscale). Hence, the test-retest results were satisfactory and consistent with previous findings (e.g. Osipow et al., 1976). Moreover, parallel to previous studies, a negative significant association was found between the Indecision subscale and the Certainty subscale (r = -.50, p < .01).

In the present study taking into consideration the following points a) the previous inconsistent factor structure results of the Indecision subscale, b) reservations of the author about using the factor scores (Osipow, 1987), c) relatively high level of internal consistency of the scale, and d) research problem of the study, Indecision Subscale was used as unidimensional rather than multidimensional one to assess the career indecision.

3.2.7 Validity and Reliability of the Turkish Version of CDSE-SF

A pilot study was conducted in a convenience group of 481 (195 male, 286 female) undergraduate students from different departments and classes at METU to assess the validity and reliability of the scale. The mean age of the participants was 21.24 and ranged from 18 to 26 (SD = 1.64). Participants of the pilot study were 126 freshmen, 117 sophomores, 146 juniors, and 92 seniors.

After the development of the CDSE (Taylor & Betz, 1983), various factor analytic studies were conducted by 50-item version and 25-item version of the scale (Betz, Hammond, & Multon, 2005; Creed, Patton, & Watson, 2002; Hampton, 2005; Watson, Brand, Stead, & Ellis, 2001). In these studies, several factorial analyses were employed including the principal component analysis by varimax rotation as in the original study of Taylor and Betz (1983), principal axis factoring with direct oblimin rotation (e.g. Creed et al., 2002), confirmatory factor analysis with maximum likelihood (e.g. Watson et al., 2001). However, most of them did not confirm the five-factor model of the scale (e.g. Hampton, 2005; Peterson & delMass, 1998).

To check the construct validity and determine the factor structure of the CDSE-SF, exploratory factor analysis was performed. Prior conducting factor analysis, the sample size of the pilot study was evaluated by means of KMO and Barlett's test of sphericity. The value of KMO was found .93 and defined as marvelous (Kaiser, 1970). The Barlett's test of sphericity was significant [χ^2 (300) = 4616.029, $p < .001$]. As seen the results of the KMO and Barlett's test were satisfactory and allowed to perform factor analysis. A principal component factor analysis with varimax rotation was held to determine the factor structure of the scale. The analysis revealed five factors those eigenvalues higher than one. The five factor solution was explained the 55.61% of the total variance. The first factor accounted for 35.70% (eigenvalue 8.92), the second one accounted for 5.40% (eigenvalue 1.35), the third one accounted for 5.24% (eigenvalue 1.31), the fourth one accounted for 5.16%

(eigenvalue 1.29), and the fifth one accounted for 4.08% (eigenvalue 1.02) of the total variance. Although the five subscales were revealed by principal component analysis, the distribution of the items was complex and questionable as mentioned by most of the previous studies (e.g. Peterson & delMas, 1998) because some of the items had double or triple loadings greater than .30 on more than one factor. In addition, the scree plot (Figure 3.3) supported a unidimensional model despite of five factor solution.

Originally, CDSE proposed to have five subscales. The subscales are self-appraisal (items 5, 9, 14, 18, 22), occupational information (items 1, 10, 15, 19, 23), goal selection (items 2, 6, 11, 16, 20), planning (items 3, 7, 12, 21, 24), problem solving (items 4, 8, 13, 17, 25). However, studies including the pioneering work of Taylor and Betz (1983) did not confirm this theorized five-factor structure of the scale because the majority items with the loadings of .30 or more loaded on two or more factors. In the similar vein, the distribution of the CDSE-SF items which factor loadings were greater than .30 of the Turkish version did not present a five factor structure. Therefore, the distribution of the items of the Turkish version of the scale was different from the theorized factor structure (Table 3.2).

Evidence of criterion-related validity of the CDSE-SF was provided by General Self-efficacy Scale (GSE; Jerusalem & Schwarzer, 1981) in a group of 125 (41 male, 84 female) undergraduate students. Accordingly, the correlation between the GSE scale and the total CDSE-SF score was .65 ($p \leq .01$). Therefore, a significant positive

correlation was observed between two different self-efficacy scales in that way higher levels of career decision making self-efficacy associated with higher level of general self-efficacy. In addition, Career Decision Scale (CDS; Osipow et al., 1976) was used to get further evidence from the participants of the actual data (N = 723). The Pearson product-moment correlation was computed between the CDS Indecision Subscale and the total score of CDSE-SF scale. The correlation coefficient was found -.50 (p < .01). Hence there was an inverse relationship between the scales which means higher level of career decision making self-efficacy associated with lower level of career indecision. Consequently, it is possible to say that The Turkish version of the CDSE-SF had sufficient concurrent validity. Factor loadings of the CDSE-SF items are shown in Table 3.2.

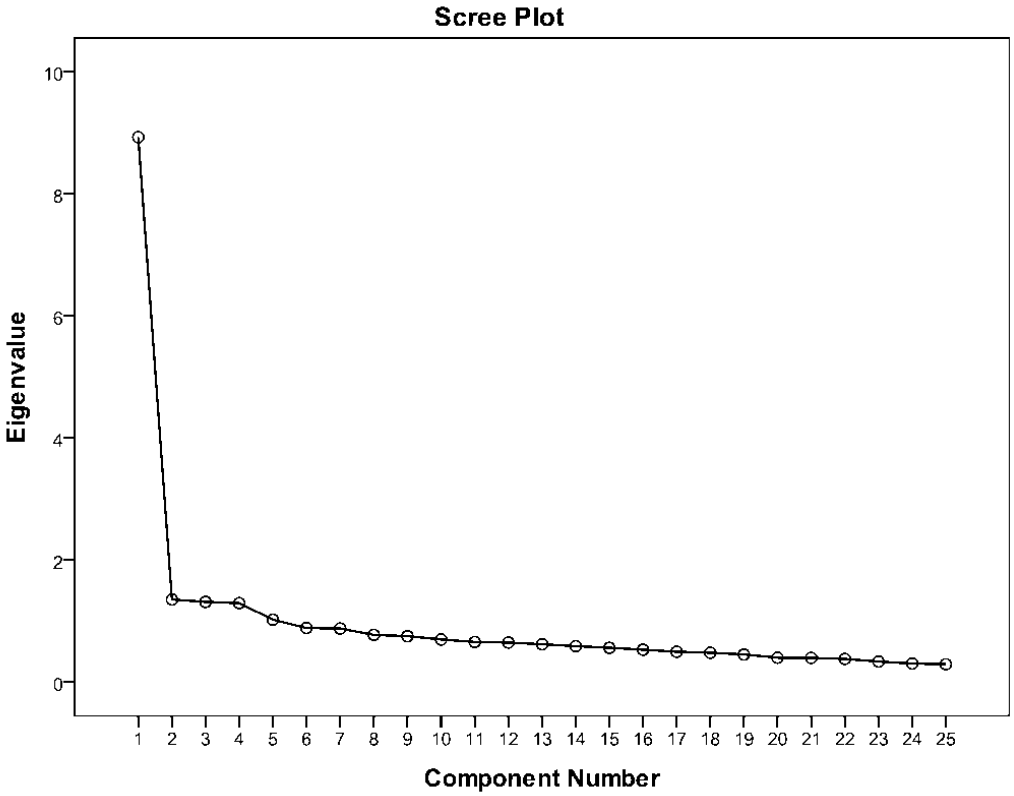


Figure 3.3 Scree Plot of Career Decision Self-Efficacy Scale- Short Form.

Moreover, internal consistency reliability and test-retest reliability were used to evaluate the reliability of the Career Decision Self-Efficacy Scale Short Form. The internal consistency reliability of the CDSE-SF was .92 for the total score that served relatively high internal consistency. The item total correlation was ranged from .44 to .63. A two-week test-retest coefficient of .91 for the total score was computed with 52 undergraduate students separate from the pilot study. The scale served relatively high reliability when considering the obtained internal consistency and test-retest coefficients.

Table 3.2

Factor Loadings of CDSE-SF Items

Item number	Factor loading				
	1	2	3	4	5
11	.72				
9	.70				
20	.63				.32
2	.58	.39			
16	.57			.36	
22	.53		.34		.33
14	.52				.44
7		.74			.33
4		.66			
8		.63			
5	.48	.58			
6	.42	.56			
3	.38	.47			
10	.35	38	.36		
21			.65		.35
15			.61		.31
24			.60		
1			.56		
12		.36	.53		
25			.51	.46	
23		.32	.50		
17				.78	
13				.74	
18					.72
19			.40		.60

Note. Factor loadings < .30 were omitted.

Taken together, consistent with findings of previous factor analytic studies that failed to confirm the theorized five-factor structure of the CDSE-SF, which has led to "consistent recommendations that it only be used as a general measure of decision-making self-efficacy" Creed et al. (2002, p. 339). Thus, in the present study, total score of CDSE-SF was used as a generalized measure of career decision-making self-efficacy as suggested by several authors (Creed et al., 2002; Peterson & delMass, 1998; Taylor & Betz, 1983; Taylor & Popma, 1990; Watson, Brand, Stead, & Ellis, 2001).

3.2.8 Validity and Reliability of the Turkish Version of OEX-EI

To assess the validity and reliability characteristics of the Outcome Expectations and Exploratory Intentions Scale in the Turkish sample a pilot study was performed by a convenience sample of 303 (115 male, 188 female) undergraduate students from different classes and departments of METU. The average age of the participants of the pilot study was 21.17 ranged between 18 and 25 (*SD* = 1.55). The class of the students distributed as 26.1% freshmen, 23.8% sophomore, 33.3% junior, and 16.9% senior in the sample of the pilot study.

To check the construct validity and also factor structure of the Outcome Expectations and Intentions Scale a principal components factor analyses with oblimin rotation was used. Before determining the factor structure of the scale, KMO and Barlett's test were examined to decide the appropriateness of factor analysis. The index of

KMO was .86 which identified as meritorious (Hair, Anderson, Tatham, & Black, 1998; Kaiser, 1970) and the Barlett's test of sphericity was significant [χ^2 (91) = 1599.027, $p < .001$] so the data and sample was suitable to conduct factor analysis. The principal components analysis yielded three components with eigenvalues greater than one. The first component explained the %36.03 of the total variance with an eigenvalue of 5.04, the second component explained the %13.66 with an eigenvalue of 1.91 and the last component explained the %9.61 with an eigenvalue of 1.34. These three factors accounted for %59.31 of the total variance. The scree test was supported the three factors solution (Figure 3.4). The factor structure and distribution of the items were exactly same as the original version of the scale (Betz & Klein-Voyten, 1997). Hence, the factors named as Academic/ Educational Outcome Expectations, Career Outcome Expectations and Exploratory Intentions consistent with the original study of Betz and Klein-Voyten (1997). Only the Career Outcome Expectations Subscale was used in this study due to the aim of the present study. Factor loadings are presented in Table 3.3.

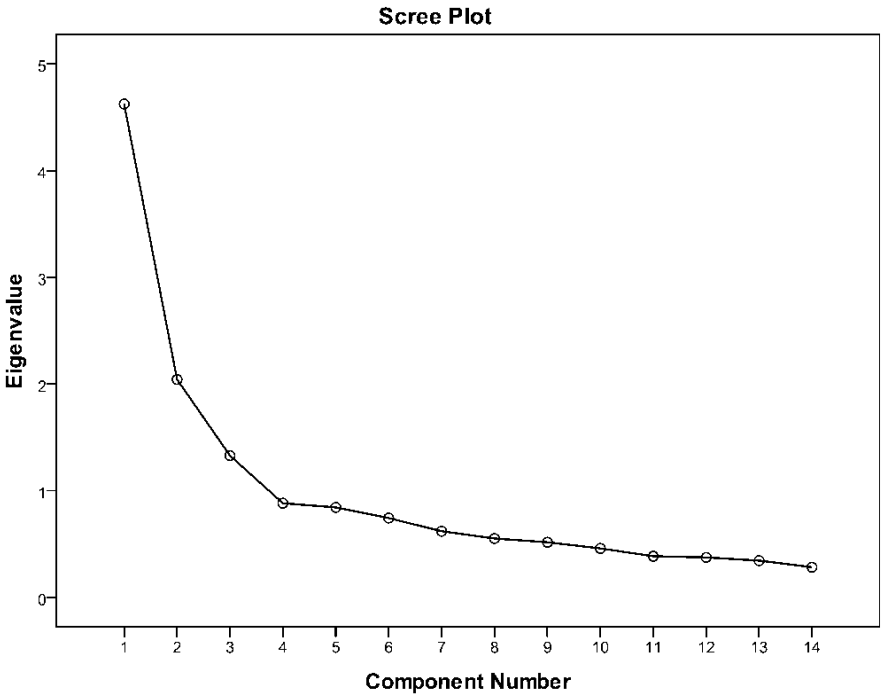


Figure 3.4 Scree Plot of Outcome Expectations and Exploratory Intentions Scale

Table 3.3

Factor Loadings of OEX-EI Scales

Item number	Factor Loadings		
	1	2	3
3	.85		
2	.84		
5	.73		
4	.73		
1	.41		
11		.83	
14		.72	
10		.68	
12		.67	
13		.40	
8			.81
7			.74
6			.71
9			.61

Note. Factor loadings < .30 were omitted.

In order to determine the reliability of the scale two widely used methods, Cronbach alpha and test-retest methods, were preferred. Alpha coefficients, one of the internal consistency methods, were calculated to check the internal consistency of the scale. Accordingly, .80 (academic outcome), .81 (career outcome), .82 (total outcome), and .78 (exploratory intentions) were found. The scale was administered two times in a group of 58 undergraduate students with a two week interval to examine the test-

retest reliability of the scale. The correlations between the administrations were .70 (academic outcome), .76 (career outcome), .83 (total outcome), and .84 (exploratory intentions). All correlations were significant ($p < .001$). Thus, it can be claimed that the scales have sufficient reliability.

3.2.9 Parental Attitude Scale (PAS)

In order to assess the perceived parental attitudes, Parental Attitude Scale was originally developed by Lamborn et al. (1991) considering the Baumrind's (1967 as cited in Lamborn et al., 1991) framework of parenting styles. The scale composed of 26 items that the first 18 item are scored on a four point Likert type scale, 19th and 20th items are scored on seven point Likert type scale, and items between 21 and 26 are scored on a three point Likert type scale. Acceptance/ involvement, strictness/ supervision, and psychological autonomy are the three dimensions of the scale. The sum of the items 1, 3, 5, 7, 9, 11, 13, 15, and 17 gives the acceptance / involvement subscale's score. Thus, the total score changes between 9 and 36 for the acceptance / involvement subscale with higher scores indicates higher level of perceived parental acceptance. The sum of the items 2, 4, 6, 8, 10, 12, 14, 16, and 18 provide the score of psychological autonomy subscale that total score ranges from 9 to 36. In this scale, all items are reverse coded except 12. Higher scores accepted as an indicative of greater perceived parental psychological autonomy. The sum of the items from 19 to 26 offers the score of strictness/ supervision subscale of the PAS. The scoring

range of this subscale changes between 8 and 32 with higher scores signify the higher level of perceived parental strictness/ supervision.

Beyond the three subscales, authoritative, neglectful, authoritarian, and permissive parenting styles can be obtained by intersection of acceptance/ involvement and strictness/ supervision dimensions of the scale. However, in the current study, only the total score of the three subscales were used to assess parental attitudes.

The adaptation studies of The Parental Attitude Scale were performed by Yılmaz (2000). In the sample of undergraduate students internal reliability and test-retest reliability coefficients were computed as .79 and .73 for acceptance/ involvement subscale, .85 and .66 for strictness/ supervision subscale, and .67 and .65 for psychological autonomy subscale, respectively. Yılmaz (2000) used the academic achievement to provide the evidence for criterion related validity of the scale. Hence, the positive significant relationship was found between perceived democratic attitudes of parents and achievement. Koydemir (2006) was used the scale in a group of 497 undergraduate students with some minor wording changes like that the present tense of the items were replaced with past tense. The reliability coefficients were reported .85 for the total scale; .74 for the acceptance/ involvement subscale; .82 for the strictness/ supervision subscale; and .65 for psychological autonomy subscale (Koydemir, 2006). The three factorial structure of the Turkish version of the scale was confirmed by several authors (Koydemir, 2006; Yılmaz, 2000). It was assumed that the PAS had sufficient reliability and validity evidence. Therefore, for

the present study no further validity study was conducted. The Cronbach alpha coefficients were found as .70 all items, .68 for acceptance/ involvement; .65 for the strictness/ supervision; and .78 for psychological autonomy in the current study.

3.2.10 Rotter's Internal External Locus of Control Scale (IELOC)

Internal- External Locus of Control Scale (IELOC) was originally developed by Rotter (1966) to assess the generalized expectancies for internal versus external control of reinforcement. It consisted of 29 forced choice (a / b) items including 6 filler-item (1, 8, 14, 19, 24, 27) that excluded from scoring process. Thus, the possible scoring range of the scale changed between 0 and 23 with higher scores accepted as a sign of external locus of control. When scoring, the first choice of the items 2, 6, 7, 9, 16, 17, 18, 20, 21, 23, 25, and 29 get one point and the second choice of the following items 3, 4, 5 ,10, 11, 12, 13, 15, 22, 26, and 28 get one point.

The adaptation studies of the IELOC were conducted by Dağ (1991). The test-retest reliability (23-day) and Cronbach alpha coefficient were reported .83 and .71, respectively (Dağ, 1991). Satisfactory reliability, construct and criterion-validity results were presented by Dağ (1991). Thus, the researcher did not conduct any further validity studies for this widely used scale. For the current study, internal consistency reliability was found as .71.

3.3 Procedure

The data of the pilot studies were collected during 2009-2010 fall semester and the study data were gathered in 2009-2010 spring semester. Throughout the all data collection procedures of this study, rules and requirements of the Middle East Technical University Human Subjects Ethics Committee were followed. All data were collected in the classroom settings with the permission of the course instructors. No identifying information were requested from the participants such as name, surname and student id number to ensure the confidentiality and anonymity of the subjects. However, in the test-retest applications students' id numbers were used to match the participants between two administrations. The completion of the survey package that included all measures took approximately 25 minutes.

3.4 Data Analyses

Several steps were followed to analyze the obtained data. Firstly, the data set was controlled in terms of data entering by using frequencies, minimum and maximum scores. Then, data cleaning and screening procedure were done to identify missing values and to check the normality. Secondly, in order to describe the data, descriptive statistics were used. In addition, Pearson product-moment correlations were computed to reveal the relationship between the variables. A t-test analysis was performed to examine the possible gender difference on career indecision. Thirdly, the presented model was tested by means of Path Analysis via AMOS 18 software

program (Arbuckle, 2009). Since each of the variables in the proposed model was measured by computed scale, the estimated parameters were best interpreted in the context of a path model. Path analysis preferred rather than regression analysis because it can help to determine the indirect effects of the variables in the model. Further, path analysis allows for the decomposition of the effects of variables into direct, indirect, and total effects (Pedhazur, 1997). A set of additional regression is added to the original regression analysis to draw out indirect effects. Because of this complexity, a path diagram is typically used to display all of the causal relationships. Accordingly, a path analysis separates direct effects and indirect effects thorough a mediator while regression analysis regards direct effect. In addition, a graphical language provides a convenient and powerful way to present complex relationships in path analysis (Ahn, 2002).

3.4.1 Path Analysis

Path analysis is roughly viewed as an extension of the multiple regression models and a complementary methodology to regression analysis (Ahn, 2002; Garson, 2008; Schumacker & Lomax, 2004). It is commonly used to "test the likelihood of a causal connection among three or more variables" (Fraenkel & Wallen, 2006, p. 343). The aim of path analysis "is to provide estimates of the magnitude and significance of hypothesized causal connections among sets of variables displayed through the use of path diagrams which is an illustration wherein the variables are identified and arrows from variables are drawn to other variables to indicate theoretically based

causal relationships" (Stage, Carter, & Nora, 2004, p.5). Mainly, two types of arrows represented in path diagram which is a schematic representation of models to indicate connections between variables as "a straight that is one headed arrow represents a causal relationship between two variables, and a curved two-headed arrow represents a simple correlation between them" (Loehlin, 2004, p.2). Path analysis holds strength because it allows researcher to study direct and indirect effects simultaneously with multiple independent and dependent variables (Stage, Carter, & Nora, 2004).

In the scope the proposed model of the current study, career indecision, career decision-making self-efficacy, and career decision-making outcome expectations were endogenous variables where career decision-making self-efficacy and career decision-making outcome expectations were mediator; and locus of control and perceived parental attitudes were exogenous variables. Explanations of the frequently used terms in path analysis were provided at below.

Path model is defined as a diagram relating independent, intermediary (mediating), and dependent variables. Single arrows indicate causation between exogenous or intermediary variables (mediators) and the dependent(s). Double arrows indicate correlation between pairs of exogenous variables (Garson, 2008; Kline, 2005).

Exogenous variable in a path model is synonymous with independent variable with no explicit causes (no arrows going to them, other than the measurement error term).

Exogenous variables cause fluctuations in the values of other latent variable in the model. If exogenous variables are correlated, this is indicated by a double-headed arrow connecting them (Byrne, 2010; Garson, 2008).

Endogenous variable is synonymous with dependent variable and influenced by the exogenous variables in the model, either directly or indirectly (Byrne, 2010). Endogenous variables have incoming arrows. Endogenous variables include mediating causal variables and dependent variables. Mediating endogenous variables have both incoming and outgoing causal arrows in the path diagram, however, the dependent variable(s) have only incoming arrows (Garson, 2008).

Mediator refers to a variable that accounts for the relationship between predictor variable(s) and criterion variable(s) (Baron & Kelly, 1986, p.1176).

Path coefficient / path weight is a standardized regression coefficient (beta) showing the direct effect of an independent variable on a dependent variable in the path model (Garson, 2008).

Chi square (χ^2) is the most commonly used fit indices to assess how well a model fits the observed data (Quintana & Maxwell, 1999; Weston & Gore, 2006). A significant χ^2 indicates the model does not fit the sample data. In contrast, a nonsignificant χ^2 is suggesting that the proposed model is consistent with the observed data. (Weston & Gore, 2006). Also a nonsignificant χ^2 indicates that the covariance matrix and the

reproduced model-implied covariance matrix are similar (Schumacker & Lomax, 2004, p.81).

Goodness of fit index (GFI) is a measure of the relative amount of variance and covariance in sample covariance matrix (S) that is jointly explained by population covariance matrix (Σ). Values of CFI range from 0 to 1.0, with values close to 1.0 being indicative of good fit (Bryne, 2010).

Adjusted goodness of fit index (AGFI) is the adjusted GFI for the number of degrees of freedom in the specified model. Similar to GFI, the values of AGFI range from 0 to 1.0, with values close to 1.0 being indicative of good fit (Bryne, 2010).

Comparative fit index (CFI) is an example of an incremental fit index which compares the improvement of the fit of the researcher's model over a more restricted model, called an independence or null model, which specifies no relationship among variables. CFI ranges from 0 to 1.0, with values closer to 1.0 representing better fit (Weston & Gore, 2006, p. 742).

Root mean square error of approximation (RMSEA) is an index that corrects for a model's complexity. When two models explain the observed data equally well, the simpler model will have the more favorable RMSEA value (Weston & Gore, 2006). Interpretations of RMSEA value has been suggested as the following: 0 = an exact

fit, < .05= a close fit, .05 to .08 = a fair fit, .08 to .10 = a mediocre fit, and .10 > = a poor fit (MacCallum, Browne, & Sugawara, 1996).

Standardized RMR based on covariance residuals. It is a summary of how much difference exists between the observed data and the model (Weston & Gore, 2006). It ranges from 0 to 1.00; in a well fitting model, this value will be small which means .05 or less (Bryne, 2010).

3.5 Limitations of the Study

This study has some limitations that should be undertaken when evaluating the results of the study and its contributions. Since self-report instruments were used to gather data, the participants may have responded to the instruments to obtain social desirability even if they were ensured confidentiality and anonymity. Thus, the accuracy of the results limited with the sincere answers of the participants.

Secondly, even if the sample size was relatively large enough to carry out the study and to obtain a representative sample at least five percent of all faculties and classes were considered, the sampling procedure did not rely on random sampling which limits the generalizability of the findings.

Thirdly, the current study was carried out with university students from only one state university (METU) in Turkey that limits the generalizability of the findings to other university students from different regions of Turkey.

Lastly, in the present study, predictors of career indecision are limited the included variables which were locus of control, perceived parental attitudes, career decision-making self-efficacy, and career decision-making outcome expectations that explained 32% of the career indecision.

CHAPTER IV

RESULTS

This chapter presents the results of the study. It starts with preliminary analyses together with missing data and outlier analyses, assumptions, and demographic variables. Then, results regarding descriptive statistics and correlations among variables were provided. Afterward, path analyses for testing the proposed model and trimmed model as well as direct and indirect relations and hypotheses testing were presented.

4.1 Preliminary Analyses

Prior to analyzing the data, variables of the study were checked in terms of missing values, univariate and multivariate outliers, and the assumptions including independence of observations, sample size, normality, linearity, homoscedasticity and multicollinearity through SPSS-PAWS 18 Program.

4.1.1 Missing Data and Outlier Analyses

Missing value analysis was performed to detect missing values in the data set. Tabachnick and Fidell (2007) stated that missing values that exceeds 5% is a significant problem. Accordingly, 8 cases with missing values more than 5% were deleted as suggested by Tabachnick and Fidell. Subsequently, to maximize the

sample size, cases with missing values fewer than 5 % were replaced by the variable mean.

To determine the univariate outliers for each variable, standardized scores (z scores) were used. Cases with z scores exceed ± 3.29 range viewed as potential outliers (Tabachnick & Fidell, 2007). However, Hair, Anderson, Tatham, and Black (1998) stated that "when the sample sizes are larger, the guidelines suggest that the threshold value of standard scores range from 3 to 4" (p. 65). According to Hair et al., (1998) no cases fall outside of the range, hence, no univariate outliers identified in the data set. In addition, Mahalanobis distance value was computed to determine multivariate outliers. Subsequently, 11 cases exceed the chi-square criterion of 22.46 ($df = 6$, $p < .001$) were identified as multivariate outliers and were excluded from the data set.

4.1.2 Assumptions of the Path Analysis

Before conducting any statistical analysis a number of assumptions such as independence of observations, sample size, normality, linearity, homoscedasticity and multicollinearity were checked.

Even if the data were collected in the classroom settings, the researcher did not allow any interaction among participants to ensure that all observations were independent.

There are several guidelines regarding the adequate sample size for example, Stevens (2002, p. 143) suggested "15 subjects per predictor". Tabachnick and Fidell (2007, p. 123) provided a formula (N > 50 + 8m; m = number of independent variables) to determine required sample size. According to Kline (2005), sample size should be at least 200 to conduct path analysis. Consequently, the sample size of the study (N = 723) was large enough to perform path analysis.

The data were also examined for univariate and multivariate normality with skewness and kurtosis. Thus, to assess the univariate normality, skewness and kurtosis values for each study variables were examined. As can be seen values for the skewness and kurtosis statistics presented in Table 4.1 were within the acceptable range of ± 3 (Field, 2009; Stevens, 2002; Tabacknick & Fidell, 2007). In addition to univariate normality, multivariate normality was assessed with scatterplots of all variables in relation to one another. When variable combinations are normal, scatterplots display elliptical shapes (Mertler & Vannatta, 2010). Accordingly, scatterplot matrix demonstrated relatively elliptical shapes for all combinations of the study variables which indicate multivariate normality (Figure 4.1).

Table 4.1

Indices of Normality for Study Variables

Variable	Skewness	Kurtosis
Career Indecision	.21	-.86
CDMSE	-.10	-.04
CDMOEX	-.79	.71
Locus of Control	-.26	-.33
Parental Attitudes		
Acceptance/ Involvement	-.67	.59
Strictness/ Supervision	.17	-.82
Psychological Autonomy	-.41	-.30

Note. CDMSE = Career decision-making self-efficacy; CDMOEX = Career decision-making outcome expectations.

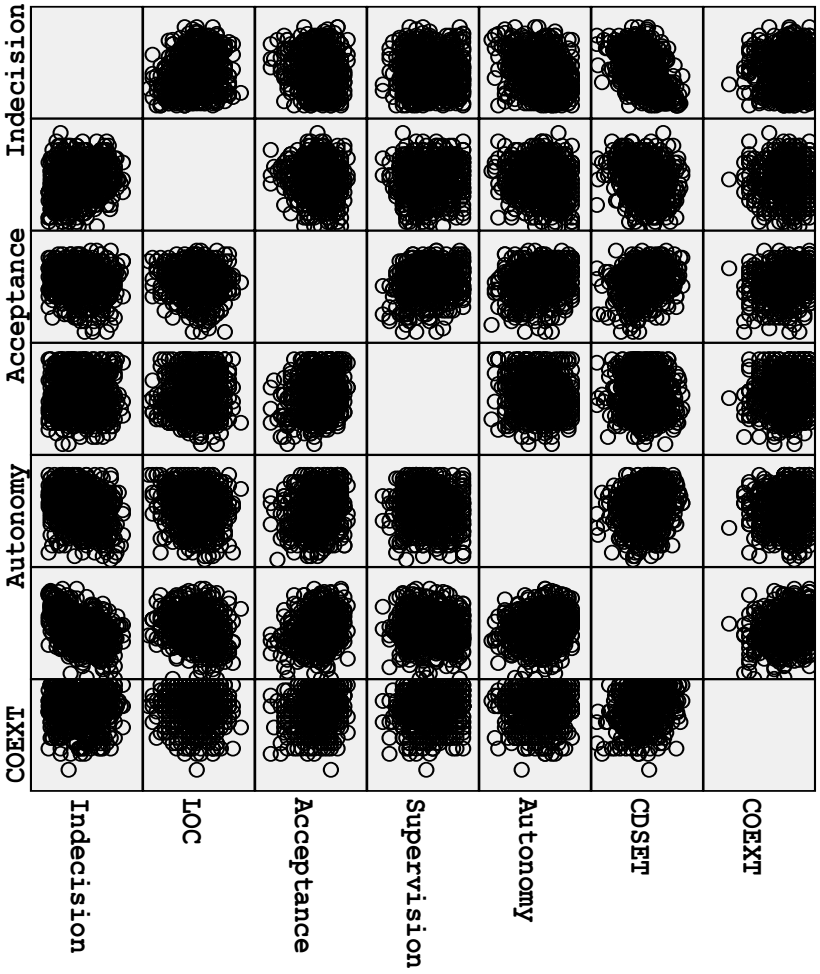


Figure 4.1 Scatterplot matrix of all study variables.

Beyond the scatterplots, residual plot was used to examine the assumptions of normality, linearity, and homoscedasticity. In the current study, residuals displayed an approximate rectangular distribution with scores concentrated in the center (Figure 4.2).

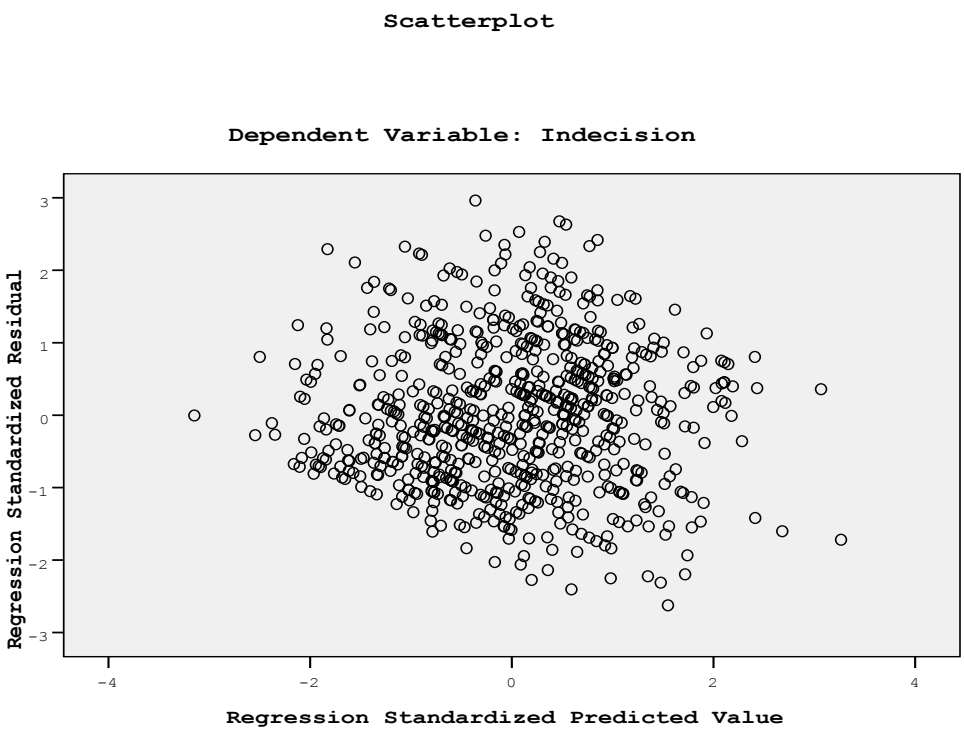


Figure 4.2 Scatterplot of standardized predicted values by standardized residuals.

To sum up, it is possible to conclude that the assumptions of normality, linearity, and homoscedasticity among the variables included in the model were met. As a result of preliminary analyses, of the 742 participants, responses from 19 participants were excluded from the data set. Thus, the final sample of the study consisted of 723 participants for further analyses.

4.2 Demographic Analyses

In the present study, the inclusion of demographic variables to the model did not yield any significant results. Therefore, separate analysis such as independent samples *t* tests, one-way analysis of variances (ANOVAs) and Pearson Product Moment correlations were computed to understand whether career indecision level of the participants differed with respect to demographic variables of gender, grade, faculty, age and also the academic achievement.

Firstly, an independent samples *t*-test was employed to determine the possible gender difference on career indecision. Accordingly, results of the analyses revealed that there was no significant differences between female and male students career indecision [t (719) = -.42, p = .67] scores.

A between-groups ANOVA was employed to explore the influence of class on career indecision. Results revealed significant differences [F (3, 717) = 6.23, p = .00] indicating that career indecision level of participants differed significantly according to their class. Post-hoc comparison (Tukey HSD) indicated that the mean of freshmen students (M = 33.16, SD = 8.45) was significantly different from senior students (M = 29.38, SD = 8.98). Thus, freshmen experienced more career indecision than seniors.

To examine if the level of career indecision differed according to faculty, another between-groups ANOVA was conducted. There are mean differences among faculties with respect to career indecision. Accordingly, Faculty of Education (M = 30.84, SD = 9.15) and Faculty of Engineering (M = 30.96, SD = 8.57) had the lowest mean career indecision scores. In contrast, Faculty of Economic and Administrative (M = 32.64, SD = 8.98), Faculty of Architecture (M = 32.40, SD = 7.97), and Faculty of Arts and Sciences (M = 31.13, SD = 7.96) had the highest mean career indecision scores, respectively. However, these observed mean differences were not significant [F (4, 715) = 1.29, $p > .05$].

Furthermore, in order to investigate the relationships among age, academic achievement, and career indecision, Pearson product-moment correlation coefficients were used. Both age and academic achievement were negatively correlated with career indecision (r = -.8, $p < .05$, r = -.13, $p < .01$, respectively). In other words, older and successful students reported lower level of career indecision.

4.3 Descriptive Statistics and Correlations

Descriptive statistics, including means and standard deviations, were computed for each variable in the sample (Table 4.2). In the present study, the mean of career indecision score for the total sample was 31.43 (SD = 8.68). This mean value is similar to values reported in previous studies conducted with university students. Tokar et al. (2003) gathered data from 350 university students and reported the mean

for total indecision as 29.76 (*SD* = 10.22). In another study, Kang (2009) reported the mean of career indecision as 32.17 (*SD* = 9.02) for total sample and identified this value as high level of career indecision.

The current sample's mean on the CDSE-SF was compared to available means obtained from university students. Betz et al. (2005), for example, reported the mean of the total score for the CDSE-SF as 95 (*SD* = 16.25; *N* = 1399). Duffy and Lent (2008) reported a total mean score of 102.7 (*SD* = 15.22; *N* = 133) for the CDSE-SF. In another study conducted with 220 African American university students, Chaney, Hammond, Betz, and Multon, (2007) reported a total mean score of 100 (*SD* = 17) for the CDSE-SF. In the current investigation, the mean of the CDSE-SF for the total score was found to be 87.39 (*SD* = 14.63) that was slightly lower than previously reported means, indicating that participants involved in the current study obviously had less career decision making self-efficacy than the samples of previous studies.

In the current study, mean of the Career Outcome Expectations Subscale was compared to original study of Betz and Klein-Voyten (1997). In their study with 345 university students, the mean of the career outcome expectations was reported as 17.6 (*SD* = 2.2) for females and 17.5 (*SD* = 2.7) for males. In the present sample, the observed mean for career outcome expectations was found to be 15.68 (*SD* = 2.82), 15.74 (*SD* = 2.94), and 15.60 (*SD* = 2.70) for entire sample, females and males respectively. Hence, the means were somewhat lower than reported means of the

original study, indicating that the participants of the present study had less career outcome expectations.

Mean of the Rotter's IE Locus of Control Scale attained by the present study was compared to Rotter's (1966) normative data. The mean for the normative data on the Rotter IE Scale was 8.29 with a standard deviation of 3.97 (N = 1180). The mean for the IE Scale in this study's sample (M = 11.92, SD = 4.07) was quite different from Rotter's normative data. Hence, participants of the current study seemed more externally controlled.

In the current study, means on the acceptance/ involvement, strictness/ supervision, and psychological autonomy subscales of the Parental Attitudes Scale were compared to available means obtained from university students. For example, Koydemir (2006) carried out a study with university students (N = 497) and found the means to be 17.12 (SD = 4.65), 17.52 (SD = 2.85), 24.41 (SD = 4.33) for the acceptance/ involvement, strictness/ supervision, and psychological autonomy subscales respectively. In the current study, however, obtained means ($M_{\text{Acceptance}}$ = 27.59, SD = 4.05; $M_{\text{Strictness}}$ = 21.73, SD = 5.42; M_{Autonomy} = 26.89; SD = 5.01) were higher than previous reported means, suggesting that the participants of the current study apparently experienced greater acceptance/ involvement, strictness/ supervision, and psychological autonomy from their parents than the sample of previous study.

Table 4.2

Means, Standard Deviations and Intercorrelations

Variable	*M*	*SD*	1	2	3	4	5	6	7
1.CI	31.43	8.68	-						
2.CDMSE	87.39	14.63	-.50**	-					
3.CDMOEX	15.69	2.82	-.01	.26**	-				
4.LOC	11.92	4.07	.19**	-.22**	-.05	-			
5.A / I	27.59	4.05	-.15**	.25**	.19**	-.11**	-		
6. S/ S	21.73	5.42	.03	-.06	.06	.11**	.18**	-	
7. P/ A	26.89	5.01	-.30**	.17**	.09*	-.08*	.23**	-.14**	-

Note. N = 723. CI = Career Indecision; CDMSE = Career decision-making self-efficacy; CDMOEX = Career decision-making outcome expectations; LOC = Locus of Control; A/I = Acceptance/ Involvement; S/S = Strictness/ Supervision; P/A = Psychological Autonomy.
***p* < .01, two-tailed; **p* < .05, two-tailed.

Further, bivariate correlations among all of the variables were computed to understand the relationships among the study variables and to detect the assumptions of multicollinearity. Therefore, Pearson product-moment correlation coefficients were calculated to evaluate the relationships among exogenous variables of locus of control, parental acceptance/ involvement; parental strictness/ supervision, and parental psychological autonomy; mediator variables of career decision-making self-efficacy and career decision-making outcome expectations; and endogenous variable of career indecision. The correlation matrix for the entire sample is shown in Table 4.2.

In addition, the correlations among the variables of the study were controlled to check the multicollinearity and no highly correlated (.7 or more) variables were observed (Tabachnick & Fidell, 2007).

Overall examination of the correlations among the variables for the entire sample indicated no significant correlations at the .001 level. However, many significant relationships can be seen at the .01 and .05 levels (Table 4.2). The significant correlation coefficients were changed in a range of .08 to .50.

As expected, career indecision was largely negatively correlated with career decision-making self-efficacy (r = -.50, p < .01). A moderate positive correlation was found between career indecision and locus of control (r = .19, p < .01). Among dimensions of perceived parental attitudes, parental acceptance/ involvement and

parental psychological autonomy were negatively correlated with career indecision (r = -.15, p < .01; r = -.30, p < .01, respectively). No significant relationship was revealed between strictness/ supervision dimension of perceived parental attitudes and career indecision (r = .03, p > .05).

Consisted with the anticipated relationships, while career decision-making self-efficacy, acceptance/ involvement, and psychological autonomy dimensions of parental attitudes were negatively related to career indecision; locus of control was positively associated with career indecision. However, no significant association was found between career decision-making outcome expectations and career indecision (r = -.01, p > .05).

4.4 Path Analysis: Testing the Proposed Career Indecision Model

In order to test the strength of independent variables in influencing the outcome variable and the potential mediating role of career decision-making self-efficacy and career decision-making outcome expectations, two separate path analyses were carried out by AMOS 18 program (Arbuckle, 2009). Path analysis allows investigating the path model by evaluating both direct and indirect relations between variables (Byrne, 2010).

As the proposed model intends, whether the model accounted for the direct relations of locus of control, career decision-making self-efficacy, and career decision-making outcome expectations with career indecision; the direct relations of locus of control, parental acceptance/ involvement, parental strictness/ supervision, and parental psychological autonomy with both career decision-making self-efficacy and career decision-making outcome expectations; the direct relation of career decision-making self-efficacy with career decision-making outcome expectations; the indirect relations of locus of control, parental acceptance/ involvement, parental strictness/ supervision, and parental psychological autonomy with career decision-making outcome expectations; and the indirect relations of locus of control, parental acceptance/ involvement, parental strictness/ supervision, and parental psychological autonomy, and career decision-making self-efficacy with career indecision were tested.

The first path analysis was employed to test the proposed path model as depicted in Figure 1.2 (p. 11) which including career decision-making self-efficacy and career decision-making outcome expectations as mediators between exogenous variables (locus of control, perceived parental acceptance/ involvement, perceived parental strictness/ supervision, and perceived parental psychological autonomy) and career indecision to understand how well the data fitted the proposed model. Amos 18 (Arbuckle, 2009) with maximum likelihood estimation (MLE) was used to conduct path analysis and to compute path coefficients as well as model fit indices.

To evaluate model fit, chi-square value (x^2) and significance, the ratio of chi-square to its degrees of freedom (x^2 / df), the goodness of fit index (GFI), the comparative fit index (CFI), the Tucker-Lewis index (TLI), normed fit index (NFI) and the root-mean-square error of approximation (RMSEA) were used goodness of fit indices. The recommended cutoff values for each goodness of fit index summarized in Table 4.3.

Table 4.3

Acceptable Cutoff Values for Goodness of Fit Indices

	Goodness of Fit Indices							
	x^2	df	x^2 / df	GFI	CFI	TLI	NFI	RMSEA
Optimal Value	-	-	< 3.0[a]	> .95[e]	> .95[c]	> .95[d]	> .90[b]	< .06[d]

Note. a. Kline (2005); b. Bentler and Bonett (1980); c. Bentler (1990); d. Hu and Bentler (1999); e. Schumacker and Lomax (2004).

In the current study, the first path analysis that evaluated the proposed model revealed large and statistically significant chi-square statistic value x^2 (3, *N* = 723) = 48.31, *p* = .00. Whereas a nonsignificant chi-square suggests good model-to-data fit, a significant chi-square suggests a poor model to data fit. In addition, the ratio of x^2 to degrees of freedom (*df*) was calculated. However, the value of this ratio x^2 / *df* = 48.31 / 3 = 16.1 was far away from recommended value of 3 (Kline, 2005).

Chi-square is sensitive to sample size. With large sample size, the chi-square yields significant values (Schumacker & Lomax, 2004). In order to deal with limitations of chi-square statistics, other various goodness of fit indices (e.g., the goodness of fit index; GFI, the comparative fit index; CFI, and the root-mean-square error of approximation; RMSEA) are recommended to assess model fit.

Obtained goodness of fit indices for the first path analysis is presented in Table 4.4. According to these indices, fit statistics for the proposed model indicated less than adequate fit.

Table 4.4

Summary of Model-Fit Statistics for the Proposed Model

	Goodness of Fit Indices							
	x^2	*df*	x^2/df	GFI	CFI	TLI	NFI	RMSEA
Proposed Model	48.3	3	16.1 (> 3)	.98	.91	.39	.91	.15

Even though some of the fit indices as GFI = .98, CFI = .91, NFI = .91 seemed to be acceptable, the chi-square statistics ($p < .05$), TLI (.39), and the RMSEA values (.15) suggested poor model fit with the data. An examination of the path coefficients among the variables revealed four nonsignificant paths (represented by the dashed lines in Figure 4.3). Considering the result of the first path analysis, the model was trimmed and tested via second path analysis.

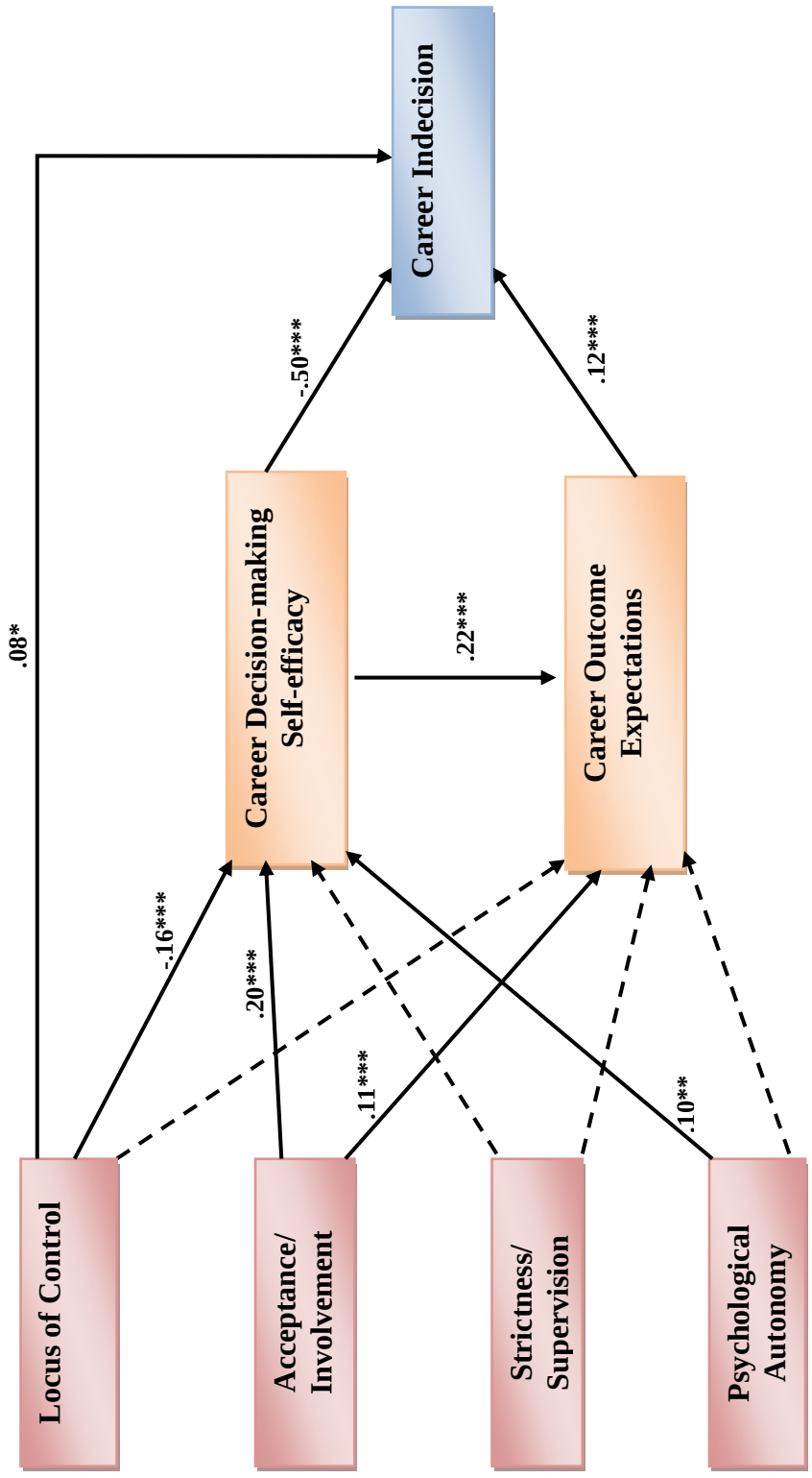


Figure 4.3 Standardized Path Coefficients for the Proposed Model
*$p < .05$; **$p < .01$; ***$p < .001$.

4.5 Path Analysis: Testing the Trimmed Career Indecision Model

Because the overall model was a poor fit of the data, the model was trimmed to reach a more parsimonious model by eliminating of existing four nonsignificant paths and by adding a new path suggested by modification index. Specifically, the following paths were nonsignificant: the path between perceived parental strictness/ supervision and career decision-making self-efficacy; the path between perceived parental strictness/ supervision and career decision-making outcome expectations; the path between perceived parental psychological autonomy and career decision-making outcome expectations, and the path between locus of control and career decision-making outcome expectations. As a result of these nonsignificant paths, supervision/ strictness one of the perceived parental attitudes was excluded from the model because it was remained unrelated to both mediator variables and dependent variable. Moreover, a direct path was recommended from perceived parental psychological autonomy to career indecision. The modification index for this path is 43.70 and expected parameter change is .364.

Subsequently, recommended changes were made to improve the fit of the model and a path analysis was rerun with the trimmed model. Standardized path coefficients for the paths of the trimmed model are presented in Figure 4.4. An examination of the path coefficients among the variables of the trimmed model indicated that all of the paths including the correlations among exogenous variables (locus of control and perceived parental attitudes) were significant.

The same model-fit statistics, namely chi-square (x^2), the ratio of chi-square to its degrees of freedom (x^2 / *df*), the goodness of fit index (GFI), the comparative fit index (CFI), the Tucker-Lewis index (TLI), normed fit index (NFI), and the root-mean-square error of approximation (RMSEA) were computed for the trimmed model.

In the trimmed model, x^2 (3, *N* = 723) = .382, *p* = .94, signifying that the model was a good fit of the data. Moreover, fit indices for the trimmed model indicated a good model to data fit: GFI = 1.00, CFI = 1.00, and TLI = 1.00. The summary of model-fit statistics for the trimmed model is displayed in Table 4.5. As a result of the second path analysis which did not reveal any nonsignificant path and did not suggest any further modification, the trimmed model was accepted as the final path model of career indecision. Thus, the trimmed model fits the data significantly better than the proposed model.

Table 4.5

Summary of Model-Fit Statistics for the Trimmed Model

	Goodness of Fit Indices							
	x^2	*df*	x^2/df	GFI	CFI	TLI	NFI	RMSEA
Trimmed Model	382	3	.13 (< 3)	1.00	1.00	1.00	1.00	.00

Regarding the research question, the squared multiple correlation coefficient (R^2) indicated that the trimmed model accounted for 32% of the variance in career indecision. Concerning the mediators, in the trimmed model accounted for 11% of the variance in career decision-making self-efficacy, and 8% of the variance in career decision-making outcome expectations.

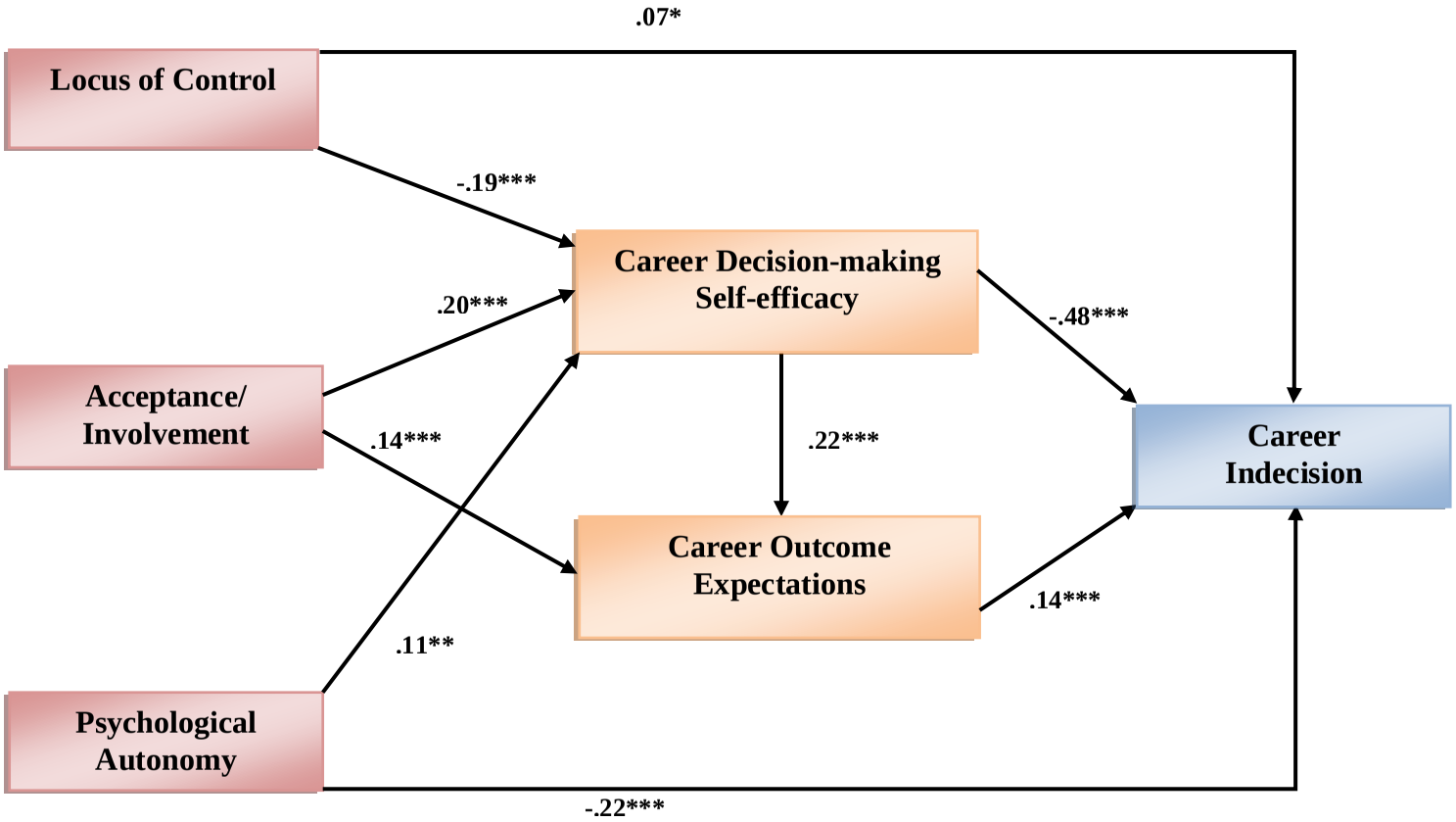


Figure 4.4 Standardized Path Coefficients for the Trimmed Model
*$p < .05$; **$p < .01$; ***$p < .001$.

4.5.1 Direct and Indirect Relationships

As shown in Figure 4.4, the path coefficients varied from .07 to -.48 for trimmed model. Cohen (1992) proposed effect size index and their values for standardized path coefficient (β) as values less than .10 indicate a "small" effect; values around .30 a "medium" effect; and values of .50 or more a “large" effect. Accordingly, career decision-making self-efficacy (β = -.48) had the largest direct effect on career indecision. Conversely, locus of control (β = .07) had the lowest direct effect on career indecision. Among the nine paths, three of them are negative (Figure 4.4).

The standardized direct and indirect effects and their statistical significance for the trimmed model were calculated and summarized in Table 4.6. The indirect effects specified in hypotheses were estimated via bootstrapping (set at 1000), and bias corrected bootstrap (BC) 95% confidence intervals were requested. Bootstrapping is being used with increasing frequency and recommends by many researcher (Preacher & Hayes, 2008; Williams & MacKinnon, 2008). It is basically a statistical method of resampling from the original data set that provides significance of indirect effects (Kline, 2005). Further, the standardized total, direct, indirect (total), and specific indirect effects and their statistical significance for the trimmed model were calculated and summarized in Table 4.6. The specific indirect effects was calculated using Preacher and Hayes’ (2008) macro for multiple mediator models because AMOS provides BC bootstrap confidence intervals for the total indirect effect but not for the specific indirect effects.

Table 4.6

Standardized Total, Direct, and Indirect Estimates of the Trimmed Model

Paths	Standardized Estimates (β)
LOC ⟶ Career Indecision	
Total	.16***
Direct	.07*
Indirect (total)	.09**
Acceptance ⟶ Career Indecision	
Total	-.07**
Direct	-
Indirect (total)	-.07**
Indirect by CDMSE	-.10**
Indirect by CDMOEX	.03**
Autonomy ⟶ Career Indecision	
Total	-.27***
Direct	-.22***
Indirect (total)	-.05**
CDMSE ⟶ Career Indecision	
Total	-.45***
Direct	-.48***
Indirect (total)	.03**
CDMOEX ⟶ Career Indecision	
Total	.14***
Direct	.14***
Indirect (total)	-

Note. CI= career indecision; CDMOEX = career decision-making outcome expectations; CDMSE = career decision-making self-efficacy; LOC = locus of control; Autonomy = perceived parental psychological autonomy; Acceptance = perceived parental acceptance/ involvement.
*$p < .05$; **$p < .01$; ***$p < .001$.

4.5.2 Hypotheses Testing

Hypothesis 1: There will be a relation between locus of control and career indecision. The results supported the Hypothesis 1 that there was a significant and positive relationship (β = .07, p < .05) between locus of control and career indecision.

Hypothesis 2a: Locus of control will be related to career indecision indirectly through career decision-making self-efficacy. The results confirmed the Hypothesis 2a that locus of control was related to career indecision indirectly through career decision-making self-efficacy (β = .09, p < .01).

Hypothesis 2b: Locus of control will be related to career indecision indirectly through career decision-making outcome expectations. The results of the study indicated that locus of control was not related to career indecision indirectly through career decision-making outcome expectations (β = .00, p > .05).

Hypothesis 3a: Perceived parental acceptance/ involvement will be related to career indecision indirectly through career decision-making self-efficacy. Hypothesis 3a was accepted as perceived parental acceptance/ involvement was associated with career indecision indirectly through career decision-making self-efficacy (β = -.10, p < .01).

Hypothesis 3b: Perceived parental acceptance/ involvement will be related to career indecision indirectly through career decision-making outcome expectations. The results verified the hypothesis 3b as perceived parental acceptance/ involvement was related to career indecision indirectly (β = .03, p < .01) through career decision-making outcome expectations.

Hypothesis 4a: Perceived parental strictness/ supervision will be related to career indecision indirectly through career decision-making self-efficacy. Hypothesis 4a was rejected because perceived parental strictness/ supervision was excluded from the trimmed model.

Hypothesis 4b: Perceived parental strictness/ supervision will be related to career indecision indirectly through career decision-making outcome expectations. As in Hypothesis 4a, Hypothesis 4b was rejected because perceived parental strictness/ supervision was excluded from the trimmed model.

Hypothesis 5a: Perceived parental psychological autonomy will be related to career indecision indirectly through career decision-making self-efficacy. The results of the study supported the hypothesis as in perceived parental psychological autonomy was related to career indecision indirectly (β = -.05, p < .01) through career decision-making self-efficacy.

Hypothesis 5b: Perceived parental psychological autonomy will be related to career indecision indirectly through career decision-making outcome expectations. The hypothesis was rejected because perceived parental psychological autonomy was not related to career indecision indirectly (β = .00, p > .05) through career decision-making outcome expectations. Beyond the hypotheses 5a and 5b, as a result of the first path analysis a direct path suggested by modification index was added from perceived parental psychological autonomy to career indecision (β = -.22, p < .001).

Hypothesis 6: There will be a relation between career decision-making self-efficacy and career indecision. Hypothesis 6 was accepted as there was a significant direct relationship between career decision-making self-efficacy and career indecision (β = -.48, p < .001).

Hypothesis 7: Career decision-making self-efficacy will be related to career indecision indirectly through career decision-making outcome expectations. The hypothesis was confirmed by the results. Accordingly, career decision-making self-efficacy was associated with career indecision indirectly (β = .03, p < .01) through career decision-making outcome expectations.

Hypothesis 8: There will be a relation between career decision-making outcome expectations and career indecision. The hypothesis was accepted as there was a significant direct relationship between career decision-making outcome expectations and career indecision (β = .14, p < .001).

Overall, the results of the path analysis revealed that the all variables except perceived parental strictness/ supervision included in the model were significantly related to career indecision of students. Most of the stated hypotheses were confirmed by the results of the study. More specifically, as hypothesized locus of control and career decision-making self-efficacy were related to career indecision both directly and indirectly. Perceived parental attitudes influenced career indecision indirectly whereas career outcome expectations influenced career indecision directly. Considering the values obtained from the multiple fit indices along with statistically significant parameters, the trimmed model of career indecision was supported by the data.

CHAPTER V

DISCUSSION

This chapter presents a general discussion along with discussions of hypothesized relationships between studied variables based on the findings obtained from the current study that is followed by implications and recomendations for research and practice.

5.1 General Discussion

The purpose of the current investigation was to examine the predictors of career indecision with in a proposed model based on social cognitive career theory (Lent et al., 1994). In particular, this study investigated the role of locus of control, perceived parental attitudes (acceptance/ involvement, psychological autonomy, strictness/ supervision), career decision-making self-efficacy, and career outcome expectations and how they interact to influence career indecision among Turkish university students. Accordingly, a mediational model was proposed and tested in which locus of control and perceived parental attitudes were proposed to interact with career decision making self-efficacy and career outcome expectations to predict career indecision. Path analysis was utilized to test the proposed career indecision model illustrated in the Figure 1.2 (p. 11). Career development and choice literature have identified multiple factors that contribute to career indecision of university students.

Even if there are many studies carried out with university students to test the social cognitive career theory, no research has been found to examine the multiple associations among these variables utilized SCCT in Turkey.

Demographic influences on career indecision investigated along with various intra-personal, interpersonal, and environmental variables. Gender, age, class, and academic achievement were more frequently examined demographics. Results of the present study revealed no significant difference between the female and male students' career indecision scores. Although the present study conducted in a different cultural context from previous studies, the obtained finding concerning the gender difference was consistent with most of previous studies (Browne, 2005; Creed, Patton, & Prideaux, 2006; Guerra & Braungart-Rieker, 1999; Kang, 2009; Osipow, Carney, & Barak, 1976; Taylor, 1982, Weiss, 2000). Accordingly, the proposed model tested for the entire sample.

In the present study, as in previous studies (Ng & Feldman, 2009; Peng & Herr, 2002; Rohner et al., 2009) results yielded a significant negative relationship between age and career indecision suggesting that younger students experience more career indecision than older students. With regard to class, significant difference between freshmen and seniors career indecision scores was found. This finding is in line with previous studies in which freshmen reported more career indecision than seniors (Guerra & Braungart-Rieker, 1999; Peng & Herr, 2002).

Results of this study concerning the relation between academic achievement and career indecision produced a negative correlation. In the literature, there is no clear agreement about the direction of the relationship between academic achievement and career indecision. While some studies indicate negative relationship (e.g. Osipow &Waddell, 1980; Daggit 1996), some others (e.g, Abu Talib & Kit Aun, 2009), report a positive correlation between age and career indecision. Furthermore results did not provide any significant differences between the career indecision scores of students enrolled in different faculties.

The current study proposed a model in which there were multiple predictors and mediators of career indecision. Path analysis was used to test this proposed model. The results of the path analysis were somewhat mixed and yielded that proposed model was not supported by the data. As a result of path analysis, to improve the model some modifications were recommended. Accordingly, some nonsignificant relationships were excluded from the model and a significant path was added to the model. Then, the path analysis was rerun to test the trimmed model. Results of the analysis for trimmed model provided a perfect fit to the data and it was theorethically sound.

5.2 Hypothesized Relationships between Locus of Control and Career Indecision

Findings of the current study supported the first hypothesis that locus of control would be directly related to career indecision illustrated by *Path 1* depicted in the Figure 4.4 (see p. 125). Thus results suggested that external locus of control seems to

be associated with greater career indecision. This finding was similar to prior studies (Simon, 1990; Saunders, 1997; Taylor, 1982) that showed significant and positive relationship between locus of control and career indecision.

Secondly, it was hypothesized that locus of control would be related to career indecision indirectly through career decision-making self-efficacy (Hypothesis 2a; *Path 2* and *Path 11*) and locus of control would be related to career indecision indirectly through career outcome expectations (Hypothesis 2b; *Path 3 and Path 12*). Results confirmed the hypothesis 2a that locus of control was related to career indecision indirectly through career decision making self-efficacy. Accordingly, proposed individual paths between locus of control to career decision making self-efficacy (*Path 2*) and between career decision making self-efficacy and career indecision (*Path 11*) were significant. Similar to Taylor and Popma (1990), locus of control was found to be moderately and negatively related to career decision-making self-efficacy and career indecision; suggesting that participants who were more externally controlled had lower career decision-making self-efficacy and had greater career indecision. Career decision-making self-efficacy was found to be negatively and largely related to career indecision. However, the results of the study did not verify the hypothesis 2b; locus of control did not related to career indecision indirectly through career outcome expectations.

In conclusion, consistent with previous findings (e.g. Woodbury, 1997; Taylor, 1982) the findings of the present study indicated that locus of control is seen as a significant

predictor of career indecision. In addition, the findings of the current study provided further evidence for SCCT (Lent et al., 1994) as career decision-making self-efficacy was a significant mediator for the relation between locus of control and career indecision.

5.3 Hypothesized Relationships between Perceived Parental Attitudes and Career Indecision

Six separate hypotheses regarding the association between perceived parental attitudes and career indecision were stated. It was hypothesized that perceived parental acceptance/ involvement would be indirectly related to career indecision through career decision-making self-efficacy (Hypothesis 3a; *Path 4* and *Path 11*). Hypothesis 3a was supported by the results indicating that there was a moderate and negative indirect relationship between perceived parental acceptance/ involvement and career indecision through career decision-making self-efficacy. Proposed individual paths between perceived parental acceptance/ involvement and career decision-making self-efficacy (*Path 4*) and between career decision-making self-efficacy and career indecision (*Path 11*) were significant. Thus, perceived parental acceptance/ involvement was positively related to career decision-making self-efficacy, which in turn, was negatively related to career indecision; participants who had more perceived parental acceptance/ involvement had more career decision-making self-efficacy and had lower career indecision.

Regarding to perceived parental acceptance/ involvement, a second hypothesis that perceived parental acceptance/ involvement would be indirectly related to career indecision through career outcome expectations (Hypothesis 3b; *Path 5* and *Path 12*). The findings of the current study confirmed the hypothesis 3b. There was a small and positive indirect relationship between perceived parental acceptance/ involvement and career indecision through career outcome expectations. Accordingly, pathways from perceived parental acceptance/ involvement to career outcome expectations (*Path 5*) and from career outcome expectations to career indecision (*Path 12*) were significant.

Concerning the indirect link between perceived parental strictness/ supervision and career indecision two hypotheses were generated. It was hypothesis that perceived parental strictness/ supervision would be related to career indecision indirectly through career decision making self-efficacy (Hypothesis 4a; *Path 6* and *Path 11*). In addition, perceived parental strictness/ supervision would be related to career indecision indirectly through career outcome expectations (Hypothesis 4b; *Path 7* and *Path 12*). However, perceived parental strictness/ supervision was excluded from the trimmed career indecision model due to nonsignificant pathways among perceived parental strictness/ supervision, mediators and dependent variable of the study. Thus, results of the study did not support both of the hypotheses. Similar to present study, Ferry et al. (2000) and Rohner et al. (2009) reported that parental control such a form of strictness/ supervision did not lead to any significant path in their model. One of the explanation fort his finding might be that, as Akyıl (2000)

concluded samples from more educated segments of Turkey may value independence, autonomy, and individuation more and perceive parental attitudes which inhibit these values as rejecting. The same pattern may be valid for the current sample as well.

Psychological autonomy was another perceived parental attitude included in the current study. It was hypothesis that perceived parental psychological autonomy would be related to career indecision indirectly through career decision-making self-efficacy (Hypothesis 5a; *Path 8* and *Path 11*). Findings revealed that there was a small but significant indirect relationship between perceived parental psychological autonomy and career indecision through career decision-making self-efficacy. Hypothesized paths between perceived parental psychological autonomy and career decision-making self-efficacy (*Path 8*), and between career decision-making self-efficacy and career indecision (*Path 11*) were significant. Accordingly, perceived parental psychological autonomy was positively related to career decision-making self-efficacy which in turn, was negatively related to career indecision; participants who had more perceived parental psychological autonomy had more career decision-making self-efficacy and had lower career indecision. It was hypothesis that perceived parental psychological autonomy would be related to career indecision indirectly through career outcome expectations (Hypothesis 5b; *Path 9* and *Path 12*). Findings of the study, however, did not validate the hypothesis. Beyond hypotheses, findings of the current study suggested a direct path from perceived parental psychological autonomy to career indecision. Consistent with previous studies

(Guerra & Braungart-Rieker, 1999; Kinnier, et al., 1990; Tokar et al., 2003), parental psychological autonomy moderately and negatively related to career indecision.

5.4 Hypothesized Relationships between Career Decision-Making Self-Efficacy and Career Indecision

In the current investigation, two separate hypotheses were declared regarding the relationship between career decision-making self-efficacy and career indecision. It was hypothesized that career decision-making self-efficacy would be related to career indecision directly (Hypothesis 6; *Path 11*). Findings revealed a large and negative relationship between career decision-making self-efficacy and career indecision. In other words, participants who had more career decision-making self-efficacy had lower career indecision. Empirical research has previously investigated the relations between career decision making self-efficacy and career indecision consistently reported a moderate to high negative correlation between them (e.g., Betz, Hammond, & Multon, 2005; Taylor & Popma, 1990) as in the current study.

Further, it was hypothesized that career decision-making self-efficacy would be related to career indecision indirectly through career outcome expectations (Hypothesis 7, *Path 10* and *Path 12*). The findings indicated a small but significant indirect relationship between career decision-making self-efficacy and career indecision suggested that the influence of career decision making self-efficacy on career indecision operated through career outcome expectations. SCCT (Lent et al., 1994) hypothesized that self-efficacy affects outcome expectations, with expectations

of positive outcomes increasing as beliefs in efficacy rise. Parallel to SCCT (Lent et al., 1994) and prior studies (Lemon, 2010), a positive moderate direct relation was observed between career decision-making self-efficacy and career outcome expectations (*Path 10*) in this study.

5.5 Hypothesized Relationships between Career Outcome Expectations and Career Indecision

It was hypothesized that career outcome expectations would be related to career indecision directly (Hypothesis 8; *Path 12*). Results confirmed such a positive and moderate direct relationship between career outcome expectations and career indecision. However, the direction of the relationship was inconsistent with past research. Previous studies (Betz & Klein-Voyten, 1997; Lemon, 2010; Weiss, 2000) generally reported either a significant negative relationship or no significant relationship between them. Outcome expectations about career decision-making behaviors viewed as the beliefs that "those behaviors would be useful to subsequent career options and decisions" (Betz & Klein-Voyten, 1997, p. 182). An explanation for this finding might be that perceptions and interpretations of the participants regarding the items of the Career Outcome Expectations Scale might have caused this result.

A partial version of the Lent et al. (1994) model was examined in the present study. The findings of this study suggested that locus of control and parental attitudes were

related to students' career indecision directly and indirectly through the career decision-making self-efficacy in ways that are consistent with SCCT. Thus, results based on the trimmed model provide support for the utility of SCCT in understanding antecedents of career indecision. Self efficacy was the mostly investigated variables in the previous model testing studies (e.g., Feldt & Woelfel, 2009; Huang, 1999; Rogers et al., 2008) which mediating effect has been mostly verified. As in previous studies mediating role of self-efficacy was confirmed in this study. Similar to Huang (1999) and Wallace and Kindaichi (2005), parental variables related to career indecision both directly and indirectly in the model that confirmed the hypothesis of SCCT regarding contextual variables in the career decision-making process. As proposed by Lent et al. (1994) and supported by Feldt and Woelfel (2009) outcome expectations were significant predictor of career indecision in the model. The explained variances in the present study were closed to previous investigations. For example, Weiss (2000) model that included career-decision making self-efficacy, career outcome expectations, and perceived barriers explained 37% of the variance in career indecision.

5.6 Implications and Recommendations for Research and Practice

The study tested a model of career indecision based on SCCT (Lent et al., 1994) by investigating the mediating role of career decision-making self-efficacy and career outcome expectations between locus of control, perceived parental attitudes and career indecision. Although the total variance explained by the trimmed model in

career indecision was not small, the rest could be explained by several other factors. Without doubt, other intra-personal, interpersonal, and environmental factors which were out of the scope of this study may also significantly impact the presence and degree of career indecision of university students could be considered in future studies.

The trimmed model formed in this study needs to be re-tested in other samples to ensure that changes were not only representative of these particular participants. It would also useful for future tests of the model to include more diverse samples recruited from different type of universities including state and private from different regions of Turkey.

In addition, career indecision was the only dependent variable in the current investigation and a measure assessing the overall level of career indecision was used (Osipow et al., 1987). Obviously, not all undecided students experience the same kind of career indecision. Thus, as suggested Guay et al. (2006) examination of the specific types of career indecision such as chronic and developmental indecision can be suggested for future studies to get more detailed information about the nature of career indecision experienced by university students. To achieve this, more valid and reliable measures assessing different forms of career indecision are needed.

In this study locus of control, parental attitudes, career decision-making sellf-efficacy, and career outcome expectations were examined to test partial utility of

SCCT. The findings of the current study validated the SCCT among a group of Turkish university students. Accordingly, testing existed model with different variables that were not investigated in the current study or developing new models could be fruitful in explaining university students' career indecision.

Due to the self-report nature of the study, the findings have just relied on self-report data which is typically associated with common respondent bias that leads to socially desirable responses. There was only self-report measure for each of the variables rather than from multiple perspectives (i.e. parents, friends, advisors). Thus, future research may take into account using different types of measures to assess the variables.

In the present study participants of the study composed of university students derived from one of the high-ranking, prestigious and competitive university. Hence, obtained findings can only be generalized to the similar populations. Even if the sample of the current study represented all faculties and classes, it did not rely on one of the random sampling that limits the generalizability of the findings. For further studies, experience of career indecision should be examined in various populations from different age groups to gather more information which allow making comparisons between various samples.

Further, the findings of the present study provide implications for practice. One of the findings of the current investigation was the high career indecision mean scores

among the participants of the study. Since this study was conducted in one of the prestigious universities in Turkey, high career indecision among participants was an unexpected finding. However, this finding is important in underlining the students' needs about provision of services about career indecision. Common services provided by university career centers include; resume preparation, providing information for jobs, providing information for job interviews and opportunities, interview sessions, resume banks as well as job application, job placements and career fairs (Erdoğmuş, 2001). Underlying assumption of these offered services is that all students are decided and satisfied with their program and they only need support from career centers before graduating to explore world of work and develop their skills with regard to job application. However, as findings of the current study indicated, career indecision might be an important issue for students and university career centers can provide a broad range of services to students, in helping them to deal with career indecision effectively.

Consistent with Lent et al.' (1994) theory, the hypothesized mediating role of career decision-making self-efficacy was verified in this study. Considering the findings from the current study, direct and mediating influences of career decision-making self-efficacy on career indecision acknowledged as in past studies; it can be concluded interventions either aiming at prevention or remediation to increase students' career decision making self-efficacy, with an additional support on internal locus of control can be beneficial for the undecided students. These interventions could be composed of discussions, trainings, and assessments identifying internal

and external factors that influence career decision-making and career planning process. For example, Brusoski, Golin, Gallagher, and Moore's (1993) intervention that aimed to change the students' attributions by showing a video that emphasized the individual's role in career planning was found to be effective.

Further implication of the findings may be related to the family. As stated by researchers (Osipow, 1983; Roe, 1957; Super, 1957) parents influence career decision-making process of their children. Likewise, the findings of the present study suggested that family factors have an influence on university students' career indecision. Students who experienced parental acceptance and a healthy separation from parents seemed to be more decided on their career. Interventions that could include families could be beneficial. However, in the current context, it seems not practical. Rather, practitioners may try to enhance the awareness of students about influences of perceived parental attitudes on their decisions.

Further, significant direct and indirect relations were obtained among locus of control, parental acceptance/ involvement, parental psychological autonomy, and career indecision. Thus, parallel to SCCT, interventions might best focus on helping university students to understand the role of their family, personalitiy abilities, values, and interests, and career decision-making self-efficacy in order to make more accurate career decision.

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APPENDICES

APPENDIX A

DEMOGRAPHIC INFORMATION FORM

(DEMOGRAFİK BİLGİ FORMU)

Değerli Katılımcı,

Bu çalışma, üniversite öğrencilerinin kariyer seçimlerinde karşılaştıkları kararsızlığı etkileyen değişkenlerin anlaşılmasına yönelik olarak yapılmaktadır. Sizden istenilen ölçeklerdeki tüm maddeleri sizin gerçek durumunuzu belirtecek şekilde yanıtlamanızdır. Araştırma sonuçları grup olarak değerlendirileceğinden **ad-soyad gibi kimliğinizi belirtecek bilgileri yazmanıza gerek yoktur**. Yanıtlarınız kesinlikle gizli tutulacak ve sadece araştırma kapsamında kullanılacaktır. Katkılarınızdan dolayı şimdiden teşekkür ederim.

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1. Cinsiyetiniz: ( ) Kız ( ) Erkek
2. Yaşınız:……..
3. Genel Akademik Ortalamanız: (CumGPA):
4. Sınıfınız:
   ( ) 1
   ( ) 2
   ( ) 3
   ( ) 4
   ( ) Diğer (Lütfen belirtiniz)……
5. Fakülteniz:
   ( ) Eğitim Fakültesi
   ( ) İktisadi ve İdari Bilimler Fakültesi
   ( ) Fen-Edebiyat Fakültesi
   ( ) Mimarlık Fakültesi
   ( ) Mühendislik Fakültesi
6. Bölümünüz:……

APPENDIX B

SAMPLE ITEMS OF CAREER DECISION SCALE*

(KARİYER KARAR ÖLÇEĞİ ÖRNEK MADDELERİ)

Bu ölçek insanların eğitim ve mesleki planlarına ilişkin genel olarak dile getirdikleri bazı ifadeleri içermektedir. Bu ifadelerden bazıları size uygun olabilir; bazıları ise olmayabilir. Lütfen ifadelerin tümünü okuyunuz ve her bir maddenin sizin kariyer ya da eğitim ile ilgili bir seçime ilişkin düşüncelerinize ne kadar yakın olduğunu, uygun olan rakamı işaretleyerek belirtiniz. Aşağıda bir örnek verilmiştir.

	Beni tamamıyla yansıtıyor	**Beni büyük ölçüde yansıtıyor**	**Beni sadece biraz yansıtıyor**	**Beni hiç yansıtmıyor**
1. Mezun olma ve işe başlama konusunda heyecanlıyım.	④	③	②	①

Eğer bir işte çalışmaya başlama konusunda heyecanlıysanız ve bu konuda herhangi bir tereddüttünüz yoksa tanımın tam olarak sizin duygunuzu yansıttığını belirtmek için "4" rakamını işaretleyiniz. Eğer madde sizin duygunuza yakın ancak tam olarak ne hissettiğinizi yansıtmıyorsa, örneğin mezun olduktan sonra çalışmaya başlamak için genelde heyecan duyuyorsanız ama bu konu hakkında bazı ufak tefek kaygılar da yaşıyorsanız "3" rakamını işaretleyiniz. Eğer madde sizi bazı yönlerden tanımlıyor, fakat genel olarak sizin duygularınızdan farklı ise, örneğin mezuniyetten sonra çalışma konusunda istekli olmaktan daha çok endişeliyseniz "2"yi işaretleyiniz. Son olarak madde eğer sizin duygularınızı hiçbir şekilde tanımlamıyorsa; yani mezuniyet ya da çalışma konusunda büyük ölçüde endişe taşıyor ve heyecan duymuyorsanız "1"i işaretleyiniz. Lütfen her bir maddeye sadece bir cevap verdiğinizden ve tüm maddeleri cevapladığınızdan emin olunuz.

	Beni tamamıyla yansıtıyor	**Beni büyük ölçüde yansıtıyor**	**Beni sadece biraz yansıtıyor**	**Beni hiç yansıtmıyor**
1. Eninde sonunda işe girmek zorunda olacağımı biliyorum. Fakat bildiğim kariyer alanlarının hiçbirisi bana cazip gelmiyor.	④	③	②	①
2. Bir kariyer alanını seçmeyle ilgili her şey çok belirsiz göründüğü için cesaretimin kırıldığını hissediyorum. Öylesine cesaretim kırıldı ki şu an için bir karar vermek istemiyorum.	④	③	②	①

* According to publisher agreement, only two sample items are illustrated.

APPENDIX C

SAMPLE ITEMS OF CAREER DECISION SELF-EFFICACY SCALE SHORT-FORM

(KARİYER KARARI ÖZ-YETERLİK ÖLÇEĞİ KISA-FORM ÖRNEK MADDELERİ)

Aşağıdaki her bir ifadeyi, lütfen dikkatle okuyunuz ve bu ifadelerdeki işlerin her birini başarabileceğinize ilişkin kendinize ne derece güvendiğinizi, verilen derecelendirme sistemine göre işaretleyerek belirtiniz.

Aşağıdaki maddelerde belirtilen her bir konuda kendinize ne kadar güveniyorsunuz?	**Hiç Güvenmiyorum**	**Çok az Güveniyorum**	**Biraz Güveniyorum**	**Çok Güveniyorum**	**Tamamen Güveniyorum**
1. İlgilendiğiniz meslekler hakkında bilgi edinmek için interneti kullanma	①	②	③	④	⑤
2. Düşündüğünüz olası kariyer alanlardan birini seçme	①	②	③	④	⑤
3. İyi bir özgeçmiş hazırlama	①	②	③	④	⑤
4. Gelecek on yıl için mesleğinizdeki istihdam eğilimlerini görme	①	②	③	④	⑤

APPENDIX D

SAMPLE ITEMS OF CAREER OUTCOME EXPECTATIONS SCALE

(KARİYER SONUÇ BEKLENTİLERİ ÖLÇEĞİ

ÖRNEK MADDELERİ)

Aşağıdaki maddeler üniversite öğrencilerinin kariyer planlarına yönelik tutumlarıyla ilgilidir. Lütfen her bir ifadeyi dikkatle okuyunuz. Daha sonra her bir ifadeye ne kadar çok katıldığınıza veya katılmadığınıza karar veriniz. Cevaplarınızı her bir soru numarasına denk gelen sıradaki dairelerden birisini işaretleyerek belirtiniz. Cevabınızdaki numara her ifadenin sizi ve duygularınızı şu an ne ölçüde tanımladığını göstermektedir. Doğru veya yanlış cevap yoktur.

	Kesinlikle Katılmıyorum	**Katılmıyorum**	**Kararsızım**	**Katılıyorum**	**Kesinlikle Katılıyorum**
1. Eğer farklı kariyer seçenekleri hakkında daha çok bilgi sahibi olursam, daha iyi bir kariyer kararı verebileceğim.	①	②	③	④	⑤
2. Eğer farklı kariyerler için ihtiyacım olan eğitimi bilirsem, daha iyi bir kariyer seçimi yapabileceğim.	①	②	③	④	⑤
3. Eğer ilgilerimi ve yeteneklerimi bilirsem, kendime uygun bir kariyer seçebilirim.	①	②	③	④	⑤
4. Eğer kariyerler hakkında bilgi toplamak için yeterince zaman harcarsam, iyi bir karar vermek için neleri bilmem gerektiğini öğrenebilirim.	①	②	③	④	⑤

APPENDIX E

SAMPLE ITEMS OF PARENTAL ATTITUDES SCALE

(ANNE-BABA TUTUM ÖLÇEĞİ ÖRNEK MADDELERİ)

Aşağıda anne ve babanızın sizinle ilgili olarak sergilemiş olduğu bazı davranışlara ait ifadeler yer almaktadır. Lütfen üniversiteye kadar olan yaşamınızı düşünerek bu davranışların, ailenizin size karşı olan davranışlarını ne derece yansıttığını verilen derecelendirme sistemine göre belirtiniz.

	Hiç Benzemiyor	**Benzemiyor**	**Biraz Benziyor**	**Tamamen Benziyor**
1. Herhangi bir sorunum olduğunda annem ve babam bana yardım ederdi.	①	②	③	④
2. Annem ve babam büyüklerle tartışmamam gerektiğini söylerdi.	①	②	③	④
3. Annem ve babam yaptığım her şeyin en iyisini yapmam için beni zorlardı.	①	②	③	④
4. Derslerimden düşük not aldığımda, annem ve babam beni daha çok çalışmam için desteklerdi.	①	②	③	④

APPENDIX F

SAMPLE ITEMS OF ROTTER'S INTERNAL EXTERNAL LOCUS OF CONTROL SCALE

(ROTTER İÇSEL-DIŞSAL KONTROL ODAĞI ÖLÇEĞİ ÖRNEK MADDELERİ)

Bu anket, bazı önemli olayların insanları etkileme biçimini bulmayı amaçlamaktadır. Her maddede 'a' ya da 'b' harfleriyle gösterilen iki seçenek bulunmaktadır. Lütfen, her seçenek çiftinde sizin kendi görüşünüze göre gerçeği yansıttığına en çok inandığınız cümleyi (yalnız bir cümleyi) seçiniz ve işaretleyiniz.

Seçiminizi yaparken, seçmeniz gerektiğini düşündüğünüz veya doğru olmasını arzu ettiğiniz cümleyi değil, **gerçekten daha doğru olduğuna inandığınız** cümleyi seçiniz. Bu anket kişisel inançlarla ilgilidir; bunun için 'doğru' ya da 'yanlış' cevap diye bir durum söz konusu değildir.

1.	**a**	İnsanlar bu dünyada hak ettikleri saygıyı er geç görürler.
	b	İnsan ne kadar çabalarsa çabalasın ne yazık ki değeri genellikle anlaşılmaz.
2.	**a**	İnsanların yaşamındaki mutsuzlukların çoğu, biraz da şanssızlıklarına bağlıdır.
	b	İnsanların talihsizlikleri kendi hatalarının sonucudur.
3.	**a**	Hiç bir yönü iyi olmayan insanlar vardır.
	b	Herkesin iyi tarafı vardır.
4.	**a**	Benim açımdan istediğimi elde etmenin talihle bir ilgisi yoktur.
	b	Çoğu durumda, yazı-tura atarak da isabetli kararlar verilebilir.

APPENDIX G

TURKISH SUMMARY

TÜRKÇE ÖZET

SOSYAL BİLİŞSEL KARİYER KURAMINA DAYALI BİR KARİYER KARARSIZLIĞI MODELİNİN ÜNİVERSİTE ÖĞRENCİLERİNDE SINANMASI

GİRİŞ

Yaşamdaki önemli ve kaçınılmaz görevlerden birisi de meslek seçimidir. Özellikle üniversite yılları, gençlerin gelecekteki kariyerlerine ilişkin önemli kararları aldıkları kritik bir dönemdir. Bu dönemde kariyere ilişkin alınan kararların gençlerin mesleki geleceğini, psikolojik ve fiziksel iyilik halini, sosyal kabulünü dolayısıyla genel yaşam kalitesini etkilemesi (Mann, Harmoni, & Power, 1989), bu kararları zor ve karmaşık bir hale getirmektedir (Gati, Krausz & Osipow, 1996). Bu nedenle, kariyer kararsızlığı üniversitelerin psikolojik danışma merkezlerine başvuran öğrencilerin sıklıkla belirttikleri problemlerden birisi olarak ortaya çıkmakta (Kelly & Pulver, 2003) ve üniversite öğrencilerinde %20 ile %60 arasında değişen oranlarda kariyer kararsızlığı görülmektedir (Gordon, 1995). Günümüzde, birçok ekonomik ve psikolojik sonucu da beraberinde getiren kariyer konusunda kararsızlık, birçok araştırmacının ilgisini çeken popüler konulardan birisi haline gelmiştir (Betz, 1992; Osipow, 1999).

Kariyer kararsızlığı terimi genellikle kariyer gelişimi ile ilgili problemleri, özellikle kariyer ile ilgili kararlar alınırken karşılaşılan problemleri ifade etmek için kullanılmaktadır. Ayrıca, kariyer kararsızlığı, mesleki olgunluk sürecinde kişinin kendisi ya da iş dünyası hakkındaki bilgi eksikliğinden kaynaklanan gelişimsel bir problem olarak da görülmektedir (Chartrand vd., 1994). Hawkins-Breaux (2004) kariyer kararsızlığını genel olarak "bireyin kariyer gelişim sürecinde karar vermesi veya geleceği için eylemde bulunması gerektiğinde bazı sebeplerden dolayı bu süreçte ilerleyememesi" şeklinde tanımlamıştır. Sonuç olarak, kariyer kararsızlığı bireyin kariyer seçimleri hakkında yaşadığı yoğun belirsizlik duygusunu beraberinde getiren ciddi bir problem olarak görülmektedir.

Kariyer kararsızlığının ve onunla ilişkili değişkenlerin anlaşılması için birçok çalışma yapılmıştır. Bu çalışmalarda çoğunlukla kariyeri hakkında kararlı ve kararsız öğrencilerin ayırtedici kişilik faktörleri üzerinde odaklanmıştır. Bu etkenler arasında, kontrol odağı (Fuqua & Hartman, 1983; Taylor, 1982), kaygı (Newman, Fuqua & Minger, 1990) öz-yeterlik (Betz & Voyten, 1997; Taylor & Betz, 1983), mesleki olgunluk (Fuqua vd., 1988), akılcı olmayan inançlar, başarısızlık korkusu (Taylor, 1982), benlik saygısı (Creed vd., 2004), kişilik oluşumu (Tokar vd., 2003), mükemmeliyetçilik, bağlanma korkusu (Leong & Chervinko, 1996), depresyon (Saunders vd., 2000) ve karamsarlık (Saka & Gati, 2007) gibi birçok kişilik özelliği çalışılmıştır. Bulgular genellikle kararsız öğrencilerin kararlı öğrencilere nispeten daha kaygılı, bağımlı, dışsal kontrollü ve düşük özyeterliğe sahip olduğunu rapor etmektedir.

Kişilik özelliklerine ek olarak, birçok kuramcı (Roe, 1957) ve araştırmacı (Blustein vd., 1991; Lopez & Andrews, 1987) ailevi faktörlerin bireylerin kariyer kararları üzerindeki etkilerini vurgulamaktadır. Örneğin, O'Neil vd., (1980) bir grup genç yetişkin ile yaptıkları çalışmada, katılımcıların %50'si kariyerleri ile ilgili karar verme sürecinde ailelerinin oldukça etkili olduğunu belirtmişlerdir. Benzer olarak, Büyükgöze-Kavas (2005) ve Işık (2007) üniversite öğrencileri ile yaptıkları çalışmalarında ailenin öğrencilerin kariyer kararı verme sürecinde en etkili faktörlerden birisi olduğunu ifade etmişlerdir. Bratcher'e göre (1982) aileler, aile bütünlüğünü sağlamak için bazı kurallar geliştirirler. Böylece, bu kurallar kariyer kararı verme davranışları da dahil olmak üzere bireyin tüm davranışlarını etkiler. Lopez ve Andrews (1987) ise, gençlerin kariyer kararsızlığını birey ve ailesi arasındaki oldukça geniş bir etkileşimin sonucu olarak görmektedir. Whiston ve Keller (2004) ailevi değişkenlerin kariyer gelişimindeki rolünü inceleyen nitel ve nicel çalışma sonuçlarını derledikleri çalışmalarında, üniversite öğrencilerinin ve genç yetişkinlerin kariyerleri hakkında karar verirken anne ve babadan alınan duygusal destek, anne babanın psikolojik özerklik desteği, cesaretlendirmesi ve anne babanın kabul edici tutumlarının etkili olduğu sonucuna varmışlardır.

Kariyer kararsızlığını araştıran çalışmalarda cinsiyet ve yaş gibi değişkenlerin sıklıkla incelendiği dikkat çekmektedir. Önceki çalışmalar genellikle kariyer kararsızlığında cinsiyet farkı olmadığını göstermektedir. Diğer taraftan çalışmaların çoğu, kariyer kararsızlığı ve yaş arasında olumsuz bir ilişki olduğunu göstermektedir.

Günümüze kadar bireylerin kariyer karar verme sürecini anlamaya ve açıklamaya çalışan birçok kariyer seçimi ve gelişimi kuramı geliştirilmiştir. Ancak bu kuramların çoğu genellikle bireysellik ve kendini gerçekleştirme gibi batı kaynaklı değerleri yansıttıkları için eleştirilmektedirler. Amerika Birleşik Devletleri'nin nüfusundaki azınlıkların önemli artışı ve kültürler arası yoğun etkileşim ve iletişim birçok kuramın değişik kültürel gruplar için tekrar gözden geçirilmesine yol açmıştır. Son yıllarda araştırmacılar birçok etkileşimli faktörün, çevresel durumların ve koşulların kariyer kararı verme sürecinde önemli bir yeri olduğunu vurgulamaktadır. Bu gelişmelere paralel olarak, Sosyal Bilişsel Kariyer Kuramı bireyin kariyer seçimi ve gelişimini etkileyebilecek kişisel, ailesel, kültürel ve çevresel faktörleri geniş bir çerçevede ele alınmasını ve değerlendirilmesini sağlayan kapsamlı bir yapıya sahip olan ve son yıllarda akademik ve kariyer gelişimini açıklamaya yönelik çağdaş yaklaşımlardan biri olarak sıklıkla kullanılmaya başlamıştır. Sosyal Bilişsel Kariyer Kuramı bu çalışmanın da kuramsal temelini oluşturmaktadır.

Sosyal Bilişsel Kariyer Kuramı var olan kariyer gelişim kuramları ile kavramsal bağlar kurmaya çalışmaktadır. Kuram, özellikle Bandura'nın, Genel Sosyal Bilişsel Kuramından ortaya çıkmıştır. Sosyal Bilişsel Kariyer Kuramı Bandura'nın üçlü karşılıklı nedensellik modelini benimsemektedir. Bu üçlü model, kişisel özelliklerin (içsel, bilişsel ve duygusal durumlar gibi), dışsal çevresel faktörlerin ve görünen davranışların her birinin birbirini karşılıklı olarak etkileyen değişkenler bütünü olduğunu savunmaktadır. Sosyal Bilişsel Kariyer Kuramı, kariyer gelişiminin bireysel belirleyicilerini kavramsallaştırmada, bireylerin kendi kariyer davranışını

düzenlemeye yardım eden birbirine bağlı öz-yeterlik inançları, sonuç beklentileri ve kişisel hedefler olarak adlandırılan üç değişkeni vurgulamaktadır. Buna göre, modelin üç sosyal bilişsel mekanizmayı vurguladığı söylenebilir: (a) öz yeterlik, (b) sonuç beklentileri ve (c) mesleki davranışa yönelik sosyal bilişsel kariyer yaklaşımının merkezini oluşturan kişisel hedefler. Bu modelde de vurgulandığı gibi, kültürel ve kavramsal değişkenler kariyer karar verme sürecinde hayati bir rol oynamaktadır. Kuram, ırk ve etnik kökeni doğrudan kişisel girdiler olarak gördüğü için Sosyal Bilişsel Kariyer modeli Afrika kökenli Amerikalılar, Asya kökenli Amerikalılar, İtalyanlar ve Çinliler gibi birçok farklı kültürel gruplarla test edilmiştir. Sosyal Bilişsel Kariyer Kuramı başlangıcından beri oldukça dikkat çekmesine rağmen, modelin kültürel geçerliğini test etmek için kültürlerarası ve uluslararası alanda daha çok çalışmaya ihtiyaç olduğu söylenmektedir (Lent vd., 2003). Böylelikle, bu çalışmanın amacı, Sosyal Bilişsel Kariyer Kuramı'nı temel alarak önerilen kariyer kararsızlığı modelini Türk üniversite öğrencileri arasında sınamaktır.

Çalışmanın Amacı

Bu çalışmanın amacı, üniversite öğrencilerinin kariyer kararsızlığını etkileyen olası faktörleri incelemektir. Bu doğrultuda, kontrol odağı, algılanan anne baba tutumu, kariyer karar verme öz-yeterliği ve kariyer sonuç beklentileri ile kariyer kararsızlığı arasındaki doğrudan ve dolaylı ilişkileri sınamak amacıyla, Sosyal Bilişsel Kariyer Kuramı'na (SBKK) dayalı ara değişkenli nedensel bir kariyer kararsızlığı modeli

önerilmiş ve tüm bu değişkenlerin birleşiminin kariyer kararsızlığını ne ölçüde açıkladığı sınanmıştır.

Buna göre, Sosyal Bilişsel Kariyer Kuramı'na dayalı olarak önerilen kariyer kararsızlık modelinde kariyer kararsızlığı bağımlı değişken olarak belirlenirken kontrol odağı, algılanan anne baba tutumu, kariyer kararı verme öz-yeterliği ve kariyer sonuç beklentileri bağımsız değişkenler olarak önerilmiştir. Ayrıca, önerilen modelde, kariyer kararı verme öz-yeterliği ve kariyer sonuç beklentileri ara değişkenler olarak yer almaktadır. Bu çalışma kapsamında, "Kariyer kararsızlığı; kontrol odağı, algılanan anne baba tutumu (kabul/ ilgi, kontrol/ denetim, psikolojik özerklik), kariyer kararı verme öz-yeterliği ve kariyer sonuç beklentileri tarafından ne ölçüde yordanmaktadır?" sorusuna yanıt aranmaktadır.

Önerilen Yol Modeli

Lent vd. (1994) ilgi, seçim ve performans modellerinin tamamının sınanmasından ziyade kısmen sınanmasını önermiştir. Buna göre, bu çalışma kapsamında önerilen kariyer kararsızlığı modeli Sosyal Bilişsel Kariyer Kuramı'nın merkezi değişkenleri olarak kabul edilen kişilik, geçmişe ilişkin ortamlar (background context), öz-yeterlik ve sonuç beklentilerini içermektedir. Bu kapsamda, kontrol odağı kariyer kararı sürecinde güvenilir ve temel bir değişken olarak görüldüğünden bu çalışmada bir kişilik değişkeni olarak seçilmiştir. Bireyler sıklıkla kariyer kararı hakkında aile üyelerinden yardım istemektedirler. Bu nedenle kariyer kararı verme sürecinde

ailenin özelliklede anne babanın rolünü anlamak ve belirlemek oldukça önemlidir. Anne ve babanın kariyer karar verme sürecindeki etkisi dikkate alındığında anne baba tutumları bir değişken olarak bu çalışmaya dahil edilmiştir. Sosyal Bilişsel Kariyer Kuramında temel ara değişkenler olarak tanımlanan öz-yeterlik ve sonuç beklentileri, bu çalışmada önerilen modelde de ara değişkenler olarak yer almaktadır.

Önerilen yol modelinde, kontrol odağı, algılanan anne baba tutumları (kabul/ ilgi, kontrol/ denetim, psikolojik özerklik), kariyer kararı verme öz-yeterliği ve kariyer sonuç beklentileri bağımsız değişkenler olarak, kariyer kararsızlığı ise bağımlı değişken olarak çalışmada yer almıştır. Özellikle, kariyer kararı verme öz-yeterliği ve kariyer sonuç beklentileri, kontrol odağı, anne baba tutumları ve kariyer kararsızlığı arasında ara değişkenler olarak sınanmıştır (Şekil 1.2).

Çalışmanın Önemi

Çoğu kişilik ve kariyer gelişim kuramcısı tarafından vurgulandığı gibi, lise ve sonraki yıllar öğrencilerin kendileri ve iş dünyası hakkında bilgi topladıkları bir keşif dönemi olarak görülmektedir. Super'a (1980) göre bu dönem 14 ile 25 yaşları arasında yer alır.

Türkiye'de eğitim sisteminde öğrenciler kariyerleri hakkındaki kararları lise yıllarında vermek zorundadırlar. Bu sistemde, karar verme süreci iki aşamada gerçekleşmektedir. İlk aşama lise 10. sınıfta gerçekleşen alan seçimidir. Bu seçimle beraber öğrenciler üniversitede okuyabilecekleri olası programların sınırlarını belirlemektedirler. İkinci aşama ise,üniversite giriş sınavıdır. Üniversiteye girmek isteyen aday sayısı ile gerçekte üniversiteye yerleşen öğrenci sayısı arasındaki fark oldukça fazladır. Her yıl adayların sadece üçte biri üniversitelerin bir lisans programına yerleştirilmektedir. Bu zorlu üniversiteye giriş sınavına hazırlık dönemi boyunca öğrenciler ve aileleri kariyer keşif dönemini göz ardı etmekte ve keşif dönemi ile ilgili aktivitelerle yeterince ilgilenememektedir. Ancak, öğrencilerin bir üniversitenin lisans programına yerleştikten sonra bulundukları programı değiştirmeleri oldukça zordur. Şu anki yükseköğretim sistemi kararsız öğrencilerin program ya da bölümlerini değiştirmelerine yönelik yeterince fırsat tanımadığından üniversitelerin lisans programlarına yerleşen birçok öğrenci istedikleri programlara girmek için üniversite giriş sınavına tekrar girmektedir. Örneğin, 2010 yılında bu sınava girenlerin % 23'ü bir üniversitenin lisans programına kayıtlı oldukları halde sınava tekrar girmişlerdir. Dolayısıyla, üniversiteye giriş sınavında elde edilen başarı, öğrencilerin kariyer kararlarından memnun olmalarını tek başına sağlayamamaktadır.

Şu anki üniversiteye yerleştirme sisteminde, üniversite öğrencilerinin ne derece olası erken, olgunlaşmamış ve istenmeyen seçimlerin sonuçları ile başbaşa kaldığı bilinmemektedir. Bu bakımdan lisans düzeyinde kariyer kararsızlığına etki eden

faktörleri değerlendirmek önemlidir. Aksi takdirde, kariyer kararsızlığının uzun süreli bir sonucu olarak çoğu öğrenci lisans eğitimi sonunda sahip olacağı meslekten memnun olmama riski ile karşı karşıya kalabilir.

Bu çalışma, Türkiye de üniversite öğrencilerinde kariyer kararsızlığı ile ilişkili olan değişkenleri Sosyal Bilişsel Kariyer Kuramının seçim modelini temel alarak araştırmayı amaçlamaktadır. Bu çalışmanın amaçlarından biri de çalışma kapsamında veri toplama aracı olarak kullanılan Kariyer Karar Ölçeği, Kariyer Karar Verme Öz-Yeterlik Ölçeği Kısa Formu ve Kariyer Sonuç Beklentileri Ölçeği'nin çeviri, geçerlik ve güvenirlik çalışmalarını yapmaktır.

Saka ve Gati (2007) tarafından da ifade edildiği gibi bireylerin kariyer kararı verme güçlüklerinin nedenlerini değerlendirmek ve tanımlamak bu bireylere yardım etmeden önceki ilk aşamadır. Kariyer ilgili problemler çoğunlukla da kariyer kararsızlığı göz ardı edildiğinde ya da psikolojik danışma sürecinde etkili bir şekilde baş edilmediğinde, ciddi psikiyatrik sorunlara ya da mesleki konularda problemlere yol açmaktadır. Örneğin, önceki çalışmalar depresyon ve kariyer kararsızlığı arasında anlamlı düzeyde pozitif bir ilişki rapor etmişlerdir (Saunders vd., 2000). Dolayısıyla, üniversitelerin danışma merkezleri, kariyer planlama merkezleri ve akademik bölümler öğrencilerin yaşadığı kariyer kararsızlığının altında yatan nedenlere ilişkin daha kapsamlı bir anlayış geliştirmeye ihtiyaç duymaktadır. Bu kapsamda bu çalışmanın bulgularının üniversitelerin psikolojik danışma merkezlerinde ve

üniversitelerin kariyer merkezlerinde çalışanlara kariyer kararsızlığını önleyici ve iyileştirici programlar ve uygulamalar planlamada daha fazla içgörü ve anlayış kazandırması umulmaktadır.

YÖNTEM

Örneklem

Bu çalışmaya, Orta Doğu Teknik Üniversitesi'nde 2009- 2010 akademik yılında 5 ayrı fakültesinde 4 farklı sınıf düzeyinde eğitimlerine devam eden 723 (338 kız; 383 erkek; 2 cinsiyet belirtilmemiş) lisans öğrencisi katılmıştır. Öğrencilerin yaş ortalaması 21.39 (SS = 1.5) olarak bulunmuştur. Katılımcıların, 225'i (% 31.1) birinci sınıf, 160'ı (% 22.1) ikinci sınıf, 169'u (% 23.4) üçüncü sınıf, 167'si (% 23.1) dördüncü sınıf öğrencileridir.

Veri Toplama Araçları

Araştırma kapsamında Demografik Bilgi Formu, Kariyer Karar Ölçeği, Kariyer Kararı Öz-Yeterlik Ölçeği Kısa Formu, Kariyer Sonuç Beklentileri Ölçeği, Anne-Baba Tutum Ölçeği ve Rotter İç-Dış Kontrol Odağı Ölçeği veri toplama araçları olarak kullanılmıştır.

Demografik Bilgi Formu katılımcılara ait yaş, cinsiyet, genel akademik ortalama, fakülte, sınıf ve bölümlerine ilişkin sorulardan oluşmaktadır.

Kariyer Karar Ölçeği (Osipow vd., 1976) uluslararası kariyer kararsızlık çalışmalarında sıklıkla kullanılan, birçok farklı dile çevrilmiş, geçerlik ve güvenirlik çalışmaları yapılmış ölçeklerden biridir (Osipow & Winer, 1996). Ölçek, son maddesi açık uçlu olmak üzere toplam 19 maddeden oluşmaktadır. İlk iki madde kesinlik alt ölçeğini (Certainty Subscale), geri kalan 16 madde ise (3-18) kariyer kararsızlık alt ölçeğini (Career Indecision Subscale) oluşturmaktadır. Kariyer kararsızlık alt ölçeğine ilişkin yapılan faktör analizi çalışmaları farklı sonuçlar göstermiştir. Bu nedenle, Osipow (1987) kariyer kararsızlığının değerlendirilmesinde kariyer kararsızlık alt ölçeğininin toplam puanın kullanılmasını önermektedir.

Kariyer Karar Ölçeği'nin Türkçe' ye çevirisi, geçerlik ve güvenirlik çalışmaları bu araştırma kapsamında gerçekleştirilmiştir. Bu amaca yönelik olarak, 336 ODTÜ öğrencisi ile bir pilot uygulama yapılmıştır. Kariyer kararsızlık alt ölçeğinin faktör yapısı literatürle tutarlı olarak maddelerin birden fazla faktöre yüklendiği ve faktör yapısının net bir şekilde ayrışmadığı bir yapı sergilemiştir. Bu nedenle, Türk örneklemi için kariyer kararsızlık alt ölçeği toplam puanı kullanılmıştır. Ayrıca ölçüt geçerliğinin sınanması için ölçek Kişisel Kararsızlık Ölçeği (Bacanlı, 2000) ile birlikte pilot çalışma dışında ayrı bir grup öğrenciye (n = 123) uygulanmıştır. Kişisel Kararsızlık Ölçeği ve Kariyer Kararsızlık alt boyutu ile arasındaki ilişki katsayısı .61, kesinlik alt ölçeği ile arasındaki ilişki katsayısı -.34 olarak bulunmuştur. İç tutarlılık katsayısı kariyer kararsızlık alt ölçeği için .86, kesinlik alt ölçeği için .85'dir. Ayrıca, test-tekrar test ilişkisel katsayısı kariyer kararsızlık alt ölçeği için .84, kesinlik alt

ölçeği için .77 olarak hesaplanmıştır. Tüm bu bulgular ışığında Kariyer Karar Ölçeği'nin Türk örnekleminde kullanılabilir olduğu söylenebilir.

Kariyer Kararı Öz-yeterlik Ölçeği Kısa-Formu Betz, Klein ve Taylor (1996) tarafından ölçeğin ilk formundan 25 maddenin atılmasıyla oluşturulmuştur. Kişinin kariyer kararı vermek için gerekli görevleri başarı ile tamamlayabileceğine ne derece inandığını ölçmek amacı ile geliştirilmiştir. Ölçeğin kısa formu 25 maddeden oluşmaktadır. Ölçeğin yapı geçerliğine ilişkin farklı araştırmacılar tarafından faktör analizi çalışmaları yapılmış ancak farklı sonuçlar bulunmuş ve teorikte önerilen beş faktörlü yapı doğrulanamamıştır. Bu nedenle, kariyer kararı verme öz-yeterliğin değerlendirilmesinde toplam puanın kullanılması önerilmektedir (Betz vd., 1996; Taylor & Popma, 1990). Ölçeğin içsel tutarlığına ilişkin katsayı .94, test-tekrar test güvenirlik katsayısı ise .83 olarak rapor edilmiştir (Betz vd., 1996; Luzzo, 1993).

Ölçeği'nin Türkçe' ye çevirisi, geçerlik ve güvenirlik çalışmaları bu araştırma kapsamında gerçekleştirilmiştir. Bu amaca yönelik olarak, 481 ODTÜ öğrencisi ile bir pilot uygulama yapılmıştır. Kariyer Kararı Verme Öz-yeterlik ölçeğinin faktör yapısı literatürle tutarlı olarak maddelerin birden fazla faktöre yüklendiği ve faktör yapısının net bir şekilde ayrışmadığı bir yapı sergilemiştir. Bu nedenle, Türk örneklemi için kariyer kararı verme öz-yeterliğin ölçülmesinde ölçeğin toplam puanı kullanılmıştır. Ayrıca, ölçüt geçerliğinin sınanması için ölçek Genel Öz-Yeterlik Ölçeği (Jerusalem & Schwarzer, 1981) ile birlikte pilot çalışma dışında ayrı bir grup

öğrenciye (*n* = 125) uygulanmıştır. İki ölçeğin toplam puanları arasındaki ilişki katsayısı .65 bulunmuştur. Ölçeğe ilişkin iç tutarlılık katsayısı .92'dir. Ayrıca, test-tekrar test ilişkisel katsayısı .91 olarak hesaplanmıştır. Türk örnekleminde yapılan geçerlik ve güvenirlik çalışmaları neticesinde Kariyer Kararı Öz-yeterlik Ölçeği'nin Türk örnekleminde kullanılabilir olduğu söylenebilir.

Kariyer Sonuç Beklentileri ve Açıklayıcı Amaçlar Ölçeği Betz ve Klein-Voyten (1997) tarafından kariyer sonuç beklentileri, akademik sonuç beklentileri ve açıklayıcı amaçların ölçülmesi amacıyla geliştirilmiştir. Ölçek, toplam 14 maddeden ve akademik sonuç beklentileri (5 madde), kariyer sonuç beklentileri (4 madde) ve açıklayıcı amaçlar (4 madde) adlı üç alt ölçekten oluşmaktadır. İçsel tutarlık katsayısı akademik sonuç beklentileri için .77, kariyer sonuç beklentileri için .79 ve açıklayıcı amaçlar için .73 olarak rapor edilmiştir (Betz & Klein-Voyten, 1997).

Kariyer Sonuç Beklentileri ve Açıklayıcı Amaçlar Ölçeği'nin Türkçe' ye çevirisi, geçerlik ve güvenirlik çalışmaları bu çalışma kapsamında gerçekleştirilmiştir. Bu amaca yönelik olarak, 303 ODTÜ öğrencisi ile bir pilot uygulama yapılmıştır. Yapılan faktör analizi Kariyer Sonuç Beklentileri ve Açıklayıcı Amaçlar Ölçeği'nin orijinal çalışması ile tutarlı bir faktör yapısına sahip olduğunu göstermiştir. Buna göre, ölçek kariyer sonuç beklentileri, akademik sonuç beklentileri ve açıklayıcı amaçlar adlı üç ayrı alt ölçeğe ayrılmaktadır. Çalışma kapsamında sadece kariyer sonuç beklentileri alt ölçeği kullanılmıştır. Alt ölçeğe ilişkin iç tutarlılık katsayısı .81

olarak bulunmuştur. Ayrıca, alt ölçeğe ilişkin test-tekrar test ilişkisel katsayısı .76 olarak hesaplanmıştır. Sonuç olarak, Kariyer Sonuç Beklentileri ve Açıklayıcı Amaçlar Ölçeği'nin Türk örnekleminde yapılan geçerlik ve güvenirlik çalışmaları ölçeğin Türk örnekleminde kullanılabilir olduğuna işaret etmektedir.

Anne-Baba Tutum Ölçeği Lamborn vd. (1991) tarafından algılanan anne baba tutumlarını değerlendirmek amacıyla geliştirilmiş Yılmaz (2000) tarafından Türkçe çeviri, geçerlik ve güvenirlik çalışmaları yapılmıştır. Ölçek toplam 26 maddeden ve kabul/ ilgi (9 madde), kontrol/ denetim (8 madde) ve psikolojik özerklik (9 madde) adlı üç alt ölçekten oluşmaktadır. Yılmaz (2000) tarafından alt ölçeklere ilişkin iç tutarlılık katsayısı kabul/ ilgi için .79, kontrol/ denetim için .85 ve psikolojik özerklik için .67 olarak rapor edilmiştir.

Rotter İç-Dış Kontrol Odağı Ölçeği Rotter (1966) tarafından genellenmiş kontrol beklentilerinin içsellik-dışsallık boyutu üzerindeki konumunu değerlendirmek için geliştirilmiştir. Toplam 29 maddeden oluşan ölçeğin 6 maddesi dolgu madde olduğundan puanlanmaz. Ölçeğin Türkçe geçerlik ve güvenirlik çalışmaları Dağ (1991) tarafından yapılmıştır. Ölçeğin Türkçe formuna ilişkin iç tutarlık katsayısı .71, test-tekrar test güvenirlik katsayısı ise .83 olarak rapor edilmiştir (Dağ, 1991).

Veri toplama süreci (İşlem)

Araştırmanın verileri, Orta Doğu Teknik Üniversitesi İnsan Araştırmaları Etik Kurulu'ndan alınan izinin ardından, 2009-2010 akademik yılı bahar döneminde araştırmacı tarafından öğretim elemanlarının izni ile sınıf ortamında toplanmıştır. Tüm öğrenciler çalışmaya gönüllü olarak katılmıştır.

Verilerin analizi

Önerilen modeli sınamak ve modelde ele alınan değişkenlerin kariyer kararsızlığını ne ölçüde yordadığını belirlemek amacıyla elde edilen verilere AMOS 18 veri analiz paket programı kullanılarak yol analizi (path analysis) uygulanmıştır.

BULGULAR

Bu çalışmada ilk olarak, çalışmanın temel analizi olan yol analizine ilişkin sayıltılar test edilmiştir. Buna göre öncelikle veri setinde yer alan eksik veriler ve aykırı değerler tespit edilmiş ve %5'in üzerinde eksik veri bulunan 8 katılımcı veri setinden çıkarılmıştır. Aykırı değerlerin tespit edilmesinde standardize edilmiş *z* puanı ve Mahalonobis uzaklık değeri kullanılmıştır. Buna göre 11 katılımcı çoklu aykırı değere sahip olduğu için veri setinden çıkarılmıştır. Bununla birlikte verilerin dağılımının normal olup olmadığını test etmek için skewness ve kurtosis değerlerine bakılmış ve değerlerin önerilen değer aralığında yer aldığı anlaşılmıştır.

Verilerin analizinde ilk olarak çalışmada yer alan demografik değişkenler (cinsiyet, sınıf, fakülte, yaş ve akademik başarı) ile kariyer kararsızlığı arasındaki ilişkilerin incelenmesi amacı ile tek yönlü varyans analizi, *t*-testi ve Pearson Moment korelasyonları hesaplanmıştır. Buna göre, *t*-testi cinsiyetler arasında kariyer kararsızlığı bakımından anlamlı bir fark olmadığını göstermiştir. Sınıf ve kariyer kararsızlığı arasındaki ilişkiyi incelemek için tek yönlü varyans analizi yapılmıştır. ANOVA sonuçları katılımcıların kariyer kararsızlıklarının sınıflarına göre anlamlı bir şekilde farklılaştığını göstermiştir. Buna göre birinci sınıf ve son sınıf öğrencilerinin kariyer kararsızlık puanları arasında anlamlı bir fark bulunmuştur. Sonuçlar, birinci sınıf öğrencilerinin son sınıf öğrencilerine göre daha fazla kararsızlık yaşadığına işaret etmektedir. Bir diğer ANOVA sonucuna göre ise, fakülteler açısından öğrencilerin kariyer kararsızlık puanları arasında anlamlı bir farklılık bulunmamıştır.

Yaş ve kariyer kararsızlık puanları arasındaki ilişkinin incelenmesi için iki değişken arasındaki korelasyon hesaplanmış ve yaş ile kariyer kararsızlığı arasında negatif yönde anlamlı bir ilişki bulunmuştur. Buna göre yaş arttıkça kariyer kararsızlığının azaldığı söylenebilir. Benzer olarak, akademik başarı ile kariyer kararsızlığı arasında negatif yönde bir korelasyon hesaplanmıştır. Buna göre başarılı öğrencilerin daha kararlı olduğu söylenebilir.

Demografik değişkenlerin analizleri sonrasında ise betimsel istatistik yöntemleri ile değişkenlere ait ortalama ve standart sapma değerleri hesaplanmış ve değişkenler arasındaki korelasyonlar özetlenmiştir (Tablo 4.2). Buna göre kariyer kararsızlığı ile diğer değişkenler arasındaki korelasyon katsayılarını incelediğimizde en büyük korelasyon katsayısının kariyer karar verme öz-yeterliği, en düşük ve anlamlı korelasyon katsayısının ise algılanan anne baba tutumlarından kabul/ ilgi alt boyutu arasında olduğu görülmüştür.

Genel olarak, korelasyon analizi sonuçları beklendiği gibi kariyer kararsızlığı, kariyer kararı verme öz-yeterliği, algılanan anne baba tutumlarından kabul/ ilgi alt boyutu ve algılanan anne baba tutumlarından psikolojik özerklik alt boyutu ile negatif yönde; kontrol odağı ile pozitif yönde ilişkilidir. Ancak, korelasyon analizi sonuçları kariyer kararsızlığı ile kariyer sonuç beklentileri arasında anlamlı bir ilişki göstermemektedir.

Bağımsız değişkenlerin bağımlı değişkeni yordama gücünü sınamak ve kariyer kararı verme öz-yeterliği ve kariyer sonuç beklentileri değişkenlerinin ara değişken (mediator) olma rollerinin incelenmesi amacı ile iki farklı yol analizi (path analysis) yapılmıştır. Yol analizleri AMOS 18 programı kullanılarak gerçekleştirilmiştir.

Önerilen modelde, kontrol odağı, kariyer kararı verme öz-yeterliği ve kariyer sonuç beklentileri ile kariyer kararsızlığı arasındaki direk ilişkiler; kontrol odağı, algılanan anne baba tutumlarından kabul/ ilgi, kontrol/ denetim ve psikolojik özerklik ile kariyer kararı verme öz-yeterliği arasındaki doğrudan ilişkiler; kontrol odağı, algılanan anne baba tutumları (kabul/ ilgi, kontrol/ denetim ve psikolojik özerklik) ile kariyer sonuç beklentileri arasındaki doğrudan ilişkiler; kariyer kararı verme öz-yeterliği ile kariyer sonuç beklentileri arasındaki doğru ilişki; kontrol odağı, algılanan anne baba tutumları (kabul/ ilgi, kontrol/ denetim ve psikolojik özerklik) ile kariyer kararı verme öz-yeterliğinin kariyer kararsızlığı ile dolaylı ilişkileri sınanmıştır (Figür 1.2).

Önerilen modelin sınanması amacı ile ilk olarak modelin çalışma verilerine uygun olup olmadığını görmek için çeşitli uygunluk ölçütleri hesaplanmıştır (Tablo 4.4). Buna göre, önerilen modelin x^2 değerine (x^2 $_{(723)}$ = 48.31) ilişkin *p* değerinin anlamlı olduğu görülmüştür. Model, x^2 ve serbestlik derecesi oranına (x^2 / df = 48.31 / 3 = 16.1) göre değerlendirildiğinde ise, elde edilen sonucun önerilen 3 değerinin (Kline, 1998) üzerinde olduğu görülmüştür. Bununla birlikte diğer uyum indeksleri değerlendirilmiş (GFI =.98; CFI = .91; TLI = .39; NFI = .91; RMSEA = .15) ve sonuç olarak modelin eldeki veriler ile tam olarak uyum sağlamadığı anlaşılmıştır. Buna göre analiz sonuçları kontrol odağından kariyer sonuç beklentilerine giden yolun, algılanan anne baba tutumlarından kontrol/ denetimden kariyer kararı verme öz-yeterliğine giden yolun, yine algılanan anne baba tutumlarından kontrol/

denetimden kariyer sonuç beklentilerine giden yolun ve algılanan anne baba tutumlarından psikolojik özerklikten kariyer sonuç beklentilerine giden yolun analizden çıkarılması ve algılanan anne baba tutumlarından psikolojik özerklikten kariyer kararsızlığına giden yeni bir yolun modele eklenmesine ilişkin öneriler vermiştir. Modele ilişkin değişiklik önerileri dikkate alınarak gerçekleştirilmiş ve yol analizi tekrarlanmıştır.

Buna göre, yenilenen modelde x^2 değerine (x^2 $_{(723)}$ =.382) ilişkin *p* değerinin anlamlı olmadığı ve uyum indeksleri açısından (x^2/df = .382 / 3 = .13; GFI =1.00; CFI = 1.00; TLI = 1.00; NFI = 1.00; RMSEA = .00) uyumun mükemmel olduğu anlaşılmıştır. Ayrıca modeldeki tüm yolların anlamlı olduğu görülmüştür. Buna göre, modeldeki doğrudan ve dolaylı yollar incelendiğinde kontrol odağının kariyer kararsızlığı ile doğrudan ilişkisinin (β = .07, p < .05) ve kariyer karar verme öz-yetkinliği üzerinden dolaylı ilişkisinin (β = .09, p < .01) anlamlı düzeyde olduğu görülmüştür. Algılanan anne-baba tutumlarından kabul/ ilgi alt boyutunun kariyer kararsızlığı ile hem kariyer karar verme öz yeterliği (β = -.10, p < .01) hem de kariyer sonuç beklentileri (β = .03, p < .01) üzerinden dolaylı ilişkisinin anlamlı olduğu bulunmuştur. Ancak, algılanan anne-baba tutumlarından kontrol/ denetim alt boyutunun ara değişkenler ve bağımlı değişken ile ilişkisinin anlamlı olmadığı dikkati çekmiş ve bunun sonucunda da algılanan kontrol/ denetim değişkeni modelden çıkarılmıştır. Psikolojik özerklik anne baba tutumu alt boyutunun kariyer kararsızlığı ile doğrudan (β = -.22, p < .001) ve kariyer kararı verme öz-yeterliği

üzerinden (β = -.05, p < .01) dolaylı ilişkisinin anlamlı olduğu tespit edilmiştir. Önerilen modelin ara değişkenlerinden kariyer kararı verme öz-yeterliğinin hem doğrudan (β = -.48, p < .001) hem de kariyer sonuç beklentileri üzerinden dolaylı ilişkisinin (β = .03, p < .01) anlamlı olduğu görülmüştür. Diğer bir ara değişken olan kariyer sonuç beklentilerinin ise kariyer kararsızlığı le doğrudan ilişkisi (β = .14, p < .001) anlamlı bulunmuştur. Tüm doğrudan ve dolaylı ilişkiler dikkate alındığında önerilen modelin üniversite öğrencilerinde kariyer kararsızlığının %32'sini açıkladığı görülmektedir.

TARTIŞMA

Bu çalışmanın amacı Sosyal Bilişsel Kariyer Kuramı çerçevesinde belirlenen değişkenlerin Türk üniversite öğrencilerinin kariyer kararsızlığını ne ölçüde yordadığını araştırmaktır. Bu kapsamda, kontrol odağı, algılanan anne baba tutumu (kabul/ ilgi, kontrol/ denetim, psikolojik özerklik), kariyer kararı verme öz-yeterliği ve kariyer sonuç beklentilerinin hem kariyer kararsızlığı ile hem de kendi aralarında ne düzeyde ilişkili oldukları incelenmiş ve Şekil 1.2'de görülen ara değişkenli bir model test edilmiştir.

Kariyer seçimi ve gelişimi literatürü, üniversite öğrencilerinin kariyer kararsızlığına katkıda bulunan çok sayıda faktör tanımlamaktadır. Sosyal Bilişsel Kariyer Kuramı'nı üniversite öğrencileri ile sınayan çok sayıda çalışma olmasına rağmen

Türkiye'de bu çalışmanın değişkenleri arasındaki çoklu ilişkileri inceleyen başka bir çalışmaya rastlanılmamıştır.

Kariyer kararsızlığı ile ilişkili olarak cinsiyet, yaş, sınıf, ve akademik başarı en sık sınanan demografik değişkenlerdir. Bu çalışmanın sonuçları kız ve erkek öğrencilerin kariyer kararsızlığı puanları arasında önemli bir fark ortaya koymamıştır. Bu nedenle, önerilen model tüm örneklem grubunda sınanmıştır. Önceki çalışmalarla benzer olarak bu çalışmada da yaş ve kariyer kararsızlığı arasında anlamlı düzeyde negatif bir ilişki bulunmuştur. Buna göre yaşı daha genç öğrenciler daha fazla kariyer kararsızlığı yaşamaktadır. Sınıf bakımından ise yaşla paralel olarak birinci sınıf ile son sınıf öğrencileri arasında anlamlı düzeyde negatif bir ilişki bulunmuştur. Buna göre birinci sınıf öğrencilerinin kariyer kararsızlığı ortalama puanları son sınıf öğrencilerinin puanlarından anlamlı düzeyde daha yüksektir. Bu çalışma, akademik başarı ve kariyer kararsızlığı arasında negatif bir ilişki ortaya koymuştur. Literatürde kariyer kararsızlığı ve akademik başarı arasındaki ilişkiye ilişkin farklı sonuçlar rapor edilmiştir. Ayrıca, çalışma bulguları farklı fakültelere kayıtlı öğrencilerin kariyer kararsızlığı puanları arasında anlamlı düzeyde bir fark görülmemiştir.

Bu çalışmada kariyer kararsızlığının çoklu yordayıcılarını ve ara değişkenlerini içeren bir kariyer kararsızlığı modeli önerilmektedir. Önerilen modelin sınanmasında yol analizi kullanılmıştır. Analiz sonuçları önerilen modelin toplanan veri tarafından

desteklendiğini göstermektedir. Yol analizi sonucunda, modeli geliştirmek için bazı değişiklikler önerilmiştir. Buna göre bazı istatistiksel olarak anlamlı olmayan yollar modelden çıkarılmış ve önemli bulunan bir yol modele eklenmiştir. Sonrasında, düzenlenen modeli sınamak için yol analizi tekrarlanmıştır. Düzenlenen modelin analiz sonuçları incelendiğinde veriye mükemmel uyum sağladığı anlaşılmıştır.

Çalışma bulguları kontrol odağı ile kariyer kararsızlığı arasındaki doğrudan ve dolaylı ilişkileri doğrular niteliktedir. Buna göre kontrol odağı ile kariyer kararsızlığı arasında önceki çalışmalarla paralel olarak küçük ama pozitif bir ilişki vardır. Çalışma bulguları ayrıca algılanan anne baba tutumlarından kabul ilgi ile kariyer kararsızlığı arasında hem kariyer kararı verme öz-yeterliği üzerinden hem de kariyer sonuç beklentileri üzerinden dolaylı ilişkilere işaret etmektedir. Bununla birlikte, algılanan anne baba tutumlarından psikolojik özerklik kariyer kararsızlığı ile hem doğrudan hem de kariyer kararı verme öz-yeterliği üzerinden dolaylı olarak ilişkilidir. Çalışma kapsamında önerilen modelde kariyer kararı verme öz-yeterliği kariyer kararsızlığı ile hem dolaylı hem de doğrudan ilişkili bulunmuştur. Ayrıca kariyer sonuç beklentileri de kariyer kararsızlığı ie anlamlı düzeyde doğrudan ilişkili bulunmuştur.

Bu çalışma kapsamında Sosyal Bilişsel Kariyer Kuramı'na (Lent vd., 1994) dayalı olarak önerilen kariyer kararsızlığı modeli kısmi olarak sınanmıştır. Bu çalışmanın bulguları kontrol odağı ve algılanan anne baba tutumlarının Sosyal Bilişsel Kariyer

Kuramı'nda önerildiği gibi öğrencilerin kariyer kararsızlığı ile doğrudan ve kariyer kararı verme öz-yeterliği üzerinden dolaylı bir şekilde ilişkili olduğunu göstermiştir. Öz-yeterlik önceki Sosyal Bilişsel Kariyer Kuramı'nı test etme çalışmalarında en sık incelenen ve ara değişken özelliği genellikle doğrulanan değişkenlerden birisidir. Elde edilen sonuçlar Sosyal Bilişsel Kariyer Kuramı'yla (Lent vd., 1994) paralel olarak, kariyer karar verme öz-yeterliğinin kontrol odağı, algılanan kabul/ ilgi ve algılanan psikolojik özerklik değişkenleri ile kariyer kararsızlığı arasında önemli bir ara değişken olduğunu doğrular niteliktedir. Diğer bir deyişle, önceki çalışmalarda olduğu gibi bu çalışmada kapsamında da öz-yeterliğin ara değişken olma rolü doğrulanmıştır. Huang (1999) ve Wallace ve Kindaichi'e (2005) benzer olarak anne babaya ait değişkenler önerilen modelde kariyer kararsızlığı ile doğrudan ve dolaylı olarak ilişkili görünmektedir bu da Sosyal Bilişsel Kariyer Kuramı'na dayalı geliştirilen hipotezleri doğrular niteliktedir. Ayrıca, Lent vd. (1994) önerdiği ve Feldt ve Woelfel'in (2009) desteklediği gibi sonuç beklentileri kariyer kararsızlığının anlamlı yordayıcılarından birisi olmuştur. Bu çalışmada önerilen model kariyer kararsızlığına ait toplam varyansın %32 sini açıklamaktadır ve bu oran önceki model test etme çalışmaları ile yakın görünmektedir. Örneğin, Weiss (2000) kariyer kararı verme öz-yeterliği, kariyer sonuç beklentileri ve algılanan bariyerler ya da engelleri dahil ettiği model test etme çalışmasında tüm bu değişkenlerin kariyer kararsızlığının %37'sini açıkladığını rapor etmiştir.

Bu araştırma, Türkiyede'ki üniversite öğrencilerinin kariyer kararsızlığına ilişkin Sosyal Bilişsel Kariyer Kuramı'nı test eden ilk çalışma olması açısında önem

taşımaktadır. Bu çalışmanın bulgularına dayanarak bundan sonra ülkemizde yapılacak çalışmalar için bazı öneriler yapılabilir. Bu çalışma kapsamında kariyer kararsızlığına ilişkin yeniden düzenlenen model tarafından açıklanan toplam varyans küçük olmamasına rağmen varyansın geri kalanı çalışmaya dahil edilmemiş diğer değişkenlerle açıklanabilir. Şüphesiz, bu çalışmanın kapsamı dışında kalan ancak üniversite öğrencilerinin kariyer kararsızlığı ile anlamlı bir şekilde ilişkili olabilecek birçok değişken vardır. Bunların gelecek çalışmalarda dikkate alınması önerilebilir.

Bu çalışmada veriler tek bir devlet üniversitesinden toplanmıştır. Bu kapsamda çalışmada sınanan modelin farklı bölgelerde yer alan üniversitelerden elde edilen farklı örneklem gruplarında sınanması önerilebilir.

Bu çalışmanın tek bağımlı değişkeni olan kariyer kararsızlığı sadece genel düzeyde ölçülmüştür. Ancak, öğrencilerin hepsi aynı tip kariyer kararsızlığı yaşamamaktadır. Buna göre gelecekteki çalışmalarda kronik ya da gelişimsel gibi adlandırılan farklı tiplerdeki kariyer kararsızlığı incelenerek öğrencilerin yaşadıkları kariyer kararsızlığına ilişkin daha detaylı bilgi sahibi olunabilir.

Bunlara ek olarak, çalışma bulguları, kariyer kararsızlığının en güçlü yordayıcısının kariyer kararı verme öz-yeterliği olduğunu göstermiştir. Buna göre, kariyer kararsızlığının üstesinden gelinmesi doğrultusunda çalışmalar yapan araştırmacıların

ya da psikolojik danışmanların öğrencilerin kariyer kararsızlığını azaltmak için öncellikle onların kariyer kararı verme öz-yeterlik düzeylerini belirlemeleri önerilebilir.

APPENDIX H

CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Büyükgöze Kavas, Ayşenur

Nationality: Turkish (TC)

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EDUCATION

Degree	Institution	Year of Graduation
BS	Hacettepe University, Department of Educational Sciences	2003

WORK EXPERIENCE

Year	Place	Enrollment
2004- Present	METU, Department of Educational Sciences	Research Assistant
2009	University of Florida, Department of Psychology	Visiting Scholar

FOREIGN LANGUAGES

Advanced English

SELECTED PUBLICATIONS

1. Büyükgöze-Kavas, A. (In press). Bireysel ve grupla psikolojik danışma uygulamalarına yönelik bir değerlendirme. *Türk Eğitim Bilimleri Dergisi.*

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