Erzincan Üniversitesi Eğitim Fakültesi Dergisi
Erzincan University Journal of Education Faculty
*2025 Cilt 27 Sayı 4 (476-490)* https://doi.org/10.17556/erziefd.1683364
Araştırma Makalesi / Research Article

# The Effect of a Psychoeducation Program on University Students' Strengths Self-Efficacy and Career Decision

# Psikoeğitim Programının Üniversite Öğrencilerinin Güçlü Yönler Özyeterliği ve Kariyer Kararları Üzerindeki Etkisi

**Cem Dönmezoğulları[1] Serap Nazlı[2]**

[1] Assist. Prof., Sinop University, Faculty of Education, Sinop, Türkiye
[2] Prof. Dr., Ankara University, Faculty of Educational Sciences, Ankara, Türkiye

**Makale Bilgileri**

*Geliş Tarihi (Received Date)*

24.04.2025

*Kabul Tarihi (Accepted Date)*

20.10.2025

***Sorumlu Yazar***

Cem Dönmezoğulları

Sinop Üniversitesi Eğitim Fakültesi, Selanik Cad. No:52B, 57000, Merkez/Sinop

donmezogullari@gmail.com

***Abstract:*** This study aims to examine the effects of a psychoeducational program based on Career Construction Theory on strengths self-efficacy and career decision levels among university students. A quasi-experimental 2x3 design, including pretest, posttest, and follow-up measurements, was employed. The study group consisted of 32 voluntary third-year undergraduate students, with 16 assigned to the experimental group and 16 to the control group. The experimental group received a psychoeducational program developed by the researcher, consisting of eight sessions and six workshops. No intervention was administered to the control group. The "Strengths Self-Efficacy Scale" and the "Career Decision Scale" were used as data collection instruments. Data was analyzed using two-way repeated measures ANOVA, Mann-Whitney U, and Wilcoxon signed-rank tests. The findings indicated that the psychoeducational program increased the strengths self-efficacy levels of the students in the experimental group and reduced their career indecision. Moreover, this effect was sustained at the follow-up test. Based on these results, it can be concluded that the psychoeducational program grounded in Career Construction Theory is effective in enhancing university students' strengths-based self-efficacy and career decision levels.

**Keywords:** Strengths, Self efficacy, Career decision, Psychoeducation program

***Öz:*** Bu çalışma, üniversite öğrencilerine yönelik geliştirilen Kariyer Yapılandırma Kuramı'na dayalı psikoeğitim programının, güçlü yönler öz yeterlik ve kariyer kararı üzerindeki etkisini incelemeyi amaçlamaktadır. Araştırmada 2x3'lük, öntest, sontest ve izleme testinden oluşan yarı deneysel desen kullanılmıştır. Çalışma grubu, 16'sı deney ve 16'sı kontrol grubunda yer alan toplam 32 gönüllü lisans 3. sınıf öğrencisinden oluşmaktadır. Deney grubuna, araştırmacı tarafından hazırlanan sekiz oturum ve altı atölye çalışmasından oluşan psikoeğitim programı uygulanmıştır. Kontrol grubuna herhangi bir müdahalede bulunulmamıştır. Veri toplama aracı olarak "Güçlü Yönler Öz Yeterlik Ölçeği" ile "Kariyer Karar Ölçeği" kullanılmıştır. Verilerin analizinde tekrarlı ölçümler için çift yönlü ANOVA, Mann-Whitney U ve Wilcoxon işaretli sıralar testinden yararlanılmıştır. Bulgular, psikoeğitim programının deney grubundaki öğrencilerin güçlü yönler öz yeterlik düzeylerini artırdığını ve kariyer kararsızlığını azalttığını göstermiştir. Ayrıca izleme testinde bu etkinin sürdüğü saptanmıştır. Bu sonuçlara göre kariyer yapılandırma kuramına dayalı psikoeğitim programının üniversite öğrencilerinin güçlü yönler öz yeterlik ve kariyer kararı düzeylerini artırma konusunda etkili olduğu söylenebilir.

**Anahtar Kelimeler:** Güçlü yönler, Öz yeterlik, Kariyer kararı, Psikoeğitim programı

Dönmezoğulları, C. & Nazlı, S. (2025). The effect of a psychoeducation program on university students' strengths self-efficacy and career decision. *Erzincan University Journal of Education Faculty,* 27(4), 476-490. https://doi.org/10.17556/erziefd.1683364

## Introduction

In everyday life, the concepts of occupation and career are frequently encountered. In interpersonal interactions, questions such as "What is your profession?" or "Where do you work?" are often among the first we ask when trying to get to know someone. This indicates that work and career hold a significant place in our lives. A chosen occupation not only enables individuals to earn financial income but also helps them establish social relationships, contribute to society, and find meaning in their lives (Blustein et al., 2023). Moreover, a occupation is a significant component of social identity, social status, and career development (Niles & Harris-Bowlsbey, 2022). Career development has been defined as a lifelong process that encompasses both formal and informal experiences which shape individuals' abilities, interests, values, knowledge of the world of work, and career goals (Brown & Lent, 2020). In this regard, career development is not only considered a process through which individuals achieve their goals, enhance personal growth, and contribute to society, but it also has significant effects on happiness (Kambur, 2023), well-being (Redekopp & Huston, 2020), job satisfaction (Dirwan et al., 2024), and life satisfaction (Eryılmaz & Mutlu, 2017).

In addition, globalization, along with rapid changes in industry and technology, has influenced not only societies but also occupations and working life, thereby increasing the importance of individuals' ability to adapt to changing conditions, uncertainty, and competition in the labor market (McDonald & Hite, 2023). As a result of these rapid transformations, career development has evolved into a dynamic structure that encompasses lifelong changes and uncertainties (Korkut-Owen, 2021). With the development of technology and the spread of digitalization, occupations and career paths are also constantly changing. Today, individuals are confronted with the necessity of reconstructing their careers at different stages of their lives (Presti et al., 2018).

In this context, it is essential for individuals to continually develop themselves, evaluate the personal meaning of their occupational choices, remain active in life, and prepare for the dynamics of working life in order to adapt to competition, uncertainty, and rapid change (Brown & Lent, 2020). Decision-making is a skill that influences both personal and social life while enabling individuals to cope with challenges and achieve their goals (Samancı & Mazlumoğlu, 2023). At this point, a career decision can be regarded as a critical step at the center of lifelong learning and the effort to adapt to changing circumstances (Savickas, 2021).

Individuals encounter numerous situations throughout their lives that require making important decisions. These decisions may relate not only to daily needs and desires but also to academic, social, and economic issues (Samancı & Mazlumoğlu, 2023). The period of emerging adulthood, which includes the university years, represents a stage in which individuals make significant decisions that shape the direction of their lives (Arnett, 2024). The concept of emerging adulthood was introduced in Arnett's (2000) study as a transitional period that involves preparing for adult roles and responsibilities. Depending on the social, economic, and cultural structure, the process of transitioning into adulthood may vary across societies. As the level of societal development increases, individuals are more likely to experience the stage of emerging adulthood, which serves as a preparatory phase between adolescence and adulthood (Uçar, 2020). Arnett (2000) initially stated that the period of emerging adulthood encompasses the ages between 18 and 25.

In developed countries, the transition to adulthood has been prolonged due to the influence of social, cultural, and economic changes, as well as the increasing tasks, responsibilities, and societal expectations associated with this stage (Atak et al., 2016). In this context, Arnett (2018) identified the lower boundary of emerging adulthood as 18 years, while extending the upper boundary of this developmental period to 29 years. When studies on emerging adulthood in Türkiye are examined, Atak (2005) found that this stage is typically experienced between the ages of 19 and 26. Another study concluded that, unlike in Western societies, the transition to emerging adulthood in Türkiye occurs gradually.

Accordingly, in Türkiye, emerging adulthood has been categorized into three sub-stages: pseudo-emerging adulthood at around age 19, middle emerging adulthood between 20 and 24 years, and adulthood between 25 and 26 years (Atak, 2011). In the study conducted by Eroğlu & Gündoğdu (2021) with individuals aged 18–30, no significant age-related differences were found in emerging adulthood total scores, leading to the conclusion that emerging adulthood may extend up to age 30 and beyond in Türkiye. Although the emerging adulthood period is often expressed in terms of age range, it is essentially a social and cultural concept. Therefore, it is important to understand emerging adulthood not merely through chronological age, but rather through individuals' perceptions, behaviors, attitudes, and decisions (Güleçoğlu & Sönmez, 2024). During the period of emerging adulthood, individuals often experience indecision regarding education and work (Arnett, 2024). In this stage, they face important developmental tasks such as establishing an identity, gaining independence, planning a career, developing close relationships, and defining personal values (Santrock, 2016). Successfully accomplishing these tasks facilitates the transition into adulthood (Arnett, 2018). Santrock (2016) described emerging adulthood as a preparatory stage for adulthood, emphasizing that completing one's education, obtaining full-time employment, and achieving economic independence are the most significant indicators of adulthood. Failure to attain economic independence and challenges related to career can hinder individuals' adaptation to adult roles. From this perspective, career decisions can be considered among the most critical choices individuals make throughout their lives (Gati et al., 2019).

Although indecision is often viewed as a problem, it actually constitutes the initial step in the decision-making process (Osipow, 1999). In this regard, what matters more than the presence of indecision itself is whether the uncertainty it creates persists as an ongoing issue. Zhou and Xu (2013) stated that making appropriate decisions enhances individuals' life satisfaction, levels of hope, and overall well-being. Studies in the relevant literature demonstrate that career indecision negatively affects well-being (Şeker, 2020; Zhang et al., 2025), self-efficacy (Amaral et al., 2024), academic achievement (Anozie et al., 2024), life satisfaction (Atitsogbe et al., 2024), meaning in life (Parola et al., 2022), vocational identity development (Gazo et al., 2024), search for work self-efficacy (Viola et al., 2017), as well as work engagement and leisure activities (Konstam & Lehmann, 2011).

Moreover, career indecision has been associated with anxiety, depression, stress, irrational thoughts, and loss of motivation, and it may even lead to dropping out of university (Heinrichs et al., 2021). Particularly in emerging adulthood, career indecision is directly related to the process of identity development, and the indecisions encountered during this stage may create difficulties not only in forming a vocational identity but also in constructing a personal identity (Ng & Feldman, 2009). Accordingly, decision-making can be considered not only a matter of career development but also one that is closely connected to academic and personal-social development.

As one of the postmodern approaches to career counseling, Career Construction Theory (CCT) emerged in the early 2000s as a response to the uncertain and precarious working conditions of the postmodern era (Savickas & Savickas, 2019). With the decline of stability in the world of work due to globalization and digitalization, individuals have increasingly shifted from long-term employment in a single organization to engaging in different jobs, short-term assignments, and temporary projects. Along with this transformation, the need for individuals to manage their own careers has become more pronounced (Savickas, 2020). In this context, rather than focusing on matching individuals with occupations, contemporary postmodern approaches emphasize the meaningful construction of careers for individuals (Wang & Li, 2024). CCT aims to shape career decisions by drawing upon individuals' earliest memories, life experiences, values, personality traits, role models, interests, and strengths (Savickas, 2020). As an integrative developmental theory, CCT draws upon Super's concepts of life-space, vocational self, developmental stages and tasks (Savickas, 2013), Holland's personality types, Adler's notions of lifestyle and early recollections (Savickas, 1997), as well as narrative approaches (Maree & Twigge, 2016). According to the theory, individuals construct their subjective career perceptions by deriving meaning from past experiences, values, and life narratives. This perception serves as a central factor guiding their vocational behaviors and choices (Savickas, 2019). The subjective career is a dynamic and personal construct shaped by the meanings an individual attributes to their vocational life. In this context, it refers to how individuals interpret their past experiences, present lives, and future aspirations in an integrated manner to define their own career journey (Savickas, 2006). At the core of the subjective career lies the concept of a life theme. Similar to Adler's notion of lifestyle in Individual Psychology, a life theme represents the values and motivations that guide an individual's career narrative. In career construction counseling, the goal is to identify the life themes embedded in an individual's career story and to explore the underlying reasons for their vocational behaviors (Sharf,

2014). According to the theory, career counseling is conducted through several stages: examining the client's career story, recognizing life experiences and underlying themes, establishing connections between these emerging themes and future goals, and finally clarifying career decisions. In this framework, career indecision can, in a sense, be attributed to the ambiguity of one's life themes (Savickas, 2019).

With the rise of the positive psychology movement, interest in mental health and well-being has increased, and research focusing on individuals' strengths and positive attributes has become more widespread (Csikszentmihalyi & Seligman, 2000). Positive psychology was introduced in 1998 through the work of Martin Seligman, in response to the limitations of psychology's predominant focus solely on mental disorders and negative aspects of human functioning (Delucca & Goldstein, 2020). The theory aims to help individuals discover and utilize their strengths to overcome life challenges without ignoring the difficulties they face or their personal weaknesses (Seligman et al., 2005). In this context, positive psychology primarily focuses on enhancing well-being by supporting individuals' self-esteem, self-confidence, self-efficacy, and strengths (Abu Omar, 2024). Strengths are defined as an individual's capacity to deliver adequate performance in a given task based on their talents, knowledge, and skills (Hodges & Clifton, 2004). They are also described as positive traits or abilities that enable individuals to function at their best (Owens et al., 2018). Strengths self-efficacy denotes an individual's perceived capability to mobilize and utilize their personal strengths effectively across various life contexts and situations (Tsai et al., 2014). Xie et al. (2025) stated that self-efficacy supports individuals in recognizing their strengths and utilizing them more effectively. Career counseling, in a sense, helps individuals develop their strengths and utilize them in the process of making career decisions (Tsai et al., 2014). A review of the relevant literature reveals that strengths are associated with career decision-making self-efficacy (Atanasova et al., 2024); career adaptability and meaning in life (Lin & Jiang, 2023); academic achievement (Da Silva et al., 2022); well-being (Russo-Netzer et al., 2023); school engagement (Wilkins et al., 2015); work engagement (Bakker & van Wingerden, 2021); school adjustment (Shoshani & Slone, 2013); goal attainment and job performance (Moore et al., 2024); as well as career satisfaction and perceived employability (Matsuo, 2022). These findings suggest that strengths facilitate adaptation to changes in both academic and professional life, enhance achievement, and simultaneously support mental health.

While correlational studies focusing on strengths can be found in the career counseling literature in Türkiye, experimental research in this area remains limited (Demir et al., 2022). Research indicates that a significant proportion of university students experience problems related to career indecision (Al Ajmi et al., 2024; Choi et al., 2024). Studies conducted in Türkiye also support the finding that students face difficulties in making career decisions (Işık, 2007; Özalçın & Çolakoğlu, 2024). In this context, it is believed that experimental studies focusing on career decision-making and the use of personal strengths could contribute significantly to the literature by enhancing the career adaptability of university students in young adulthood. This study aims to investigate how a psychoeducational intervention grounded in Career Construction Theory influences university students' strengths self efficacy and career decision. The following hypotheses were tested.

1. The post-test scores on the strengths self-efficacy of individuals in the experimental group will significantly increase following the psychoeducation program compared to those in the control group.
2. There will be no statistically significant difference between the post-test and follow-up test scores on the strengths self-efficacy of individuals in the experimental group compared to those in the control group.
3. The post-test scores on the career indecision of individuals in the experimental group will significantly decrease following the psychoeducation program compared to those in the control group.
4. There will be no statistically significant difference between the post-test and follow-up test scores on the career indecision of individuals in the experimental group compared to those in the control group.

## Method

### Research Design

A quasi-experimental design with a 2x3 factorial structure was utilized in the study, comprising an experimental and a control group, with data collected at three intervals: pretest, posttest, and follow-up. Quasi-experimental designs are used true experimental conditions cannot be fully established and random assignment to treatment groups is not feasible (Creswell & Creswell, 2023). According to Cohen et al. (2000), quasi-experimental designs are more commonly preferred in educational research due to difficulties in selecting study groups and maintaining control over true experimental conditions. The psychoeducation program was applied only with the experimental group.

### Participants

The study group consisted of third-year university students. Participation was based on the principle of voluntariness. To form the study group, announcements about the psychoeducation program were initially posted on the student bulletin boards of the faculty of education. In addition, students were provided with detailed information about the content and goals of the program. After evaluating the applications of volunteer students, male participants were first randomly assigned to the experimental and control groups so as to ensure gender balance, as the number of male applicants was relatively low. The same randomization method was used to assign female participants to the groups. This procedure aimed to ensure homogeneity between groups in terms of gender. 32 students participated in the study, with 16 (14 females, 2 males) in the experimental group and 16 (13 females, 3 males) in the control group. The pre-test mean score of the Strengths Self-Efficacy Scale was 72.12 in the experimental group and 66.81 in the control group. The pre-test mean scores of the Indecision Scale were 37.68 in the experimental group and 35.56 in the control group. To determine whether there was a significant difference between the groups prior to the experimental procedure, the Mann-Whitney U test and the Independent Samples t-test were conducted. The results of the Mann-Whitney U test indicated that there was no significant difference between the experimental and control groups in terms of Strengths Self-Efficacy scores ($U = 103.50$, $p > .05$). Similarly, the results of the Independent Samples t-test revealed that the groups did not differ significantly in terms of Indecision Scale scores ($t =$

1.380, $p > .05$). These findings suggest that the experimental and control groups were equivalent with respect to the relevant variables before the experimental procedure.

**Development of the Psychoeducation Program**

A program was developed by researcher to support university students' strengths self-efficacy and career decision levels. Psychoeducation is a group-based intervention aimed at helping individuals acquire knowledge on a specific topic or problem, better understand themselves and their interpersonal relationships, solve the problems they encounter, and develop various skills (Brown, 2018). Psychoeducation programs are designed not only to enhance participants' cognitive understanding but also to support their emotional and behavioral skills (Erden-Çınar & Eminoğlu, 2020; Motlova et al., 2017). According to Nazlı (2011), an effective psychoeducational intervention requires a two-step approach: (1) the development of the program's foundation and (2) the design process. In the first step, the philosophical and theoretical framework of the program and the characteristics of the participants are identified. In the second step, the outcomes, content, structure, and evaluation methods are designed based on this framework. The current study followed the steps proposed by Nazlı (2011) in developing the program.

In designing the foundation of the psychoeducation program, the first goal was to identify the target group. A needs analysis was conducted with students from various departments of the faculty, and it was found that they had significant needs related to career planning. Therefore, it was concluded that a career-focused psychoeducation program would be beneficial for them. In determining the target group, students' grade levels were taken into account. First and second year students may experience more challenges related to adapting to university life (Aktaş, 1997; Erdoğan et al., 2005; Özkan & Yılmaz, 2010), while fourth-year students may experience lower levels of career indecision compared to third-year students (Aşık & Akgül, 2022; Yusupu, 2015). Based on this consideration, the program was implemented with third-year students. Following the identification of the target group, career needs of the participants were examined using Super's (1980) theory. According to this theory, university students are in the exploration stage. In the stage, their career development needs include self-understanding, gaining occupational knowledge, identifying career options, and making career decisions (Super, 1990). In line with these needs, the program included sessions and workshops designed to help participants recognize their personal characteristics, explore post-graduation career options, and make informed career decisions. CCT formed the theoretical basis of the program, aiming to enhance participants' awareness of their career decisions and strengths. To facilitate the recognition and use of personal strengths, the program followed the strength-based intervention steps proposed by Seligman et al. (2005). Additionally, Cognitive Information Processing (CIP) theory was integrated to support students in evaluating their career options and making decisions (Sampson et al., 1992). The development of strengths was also informed by relevant literature (Linley et al., 2010; Proctor et al., 2011; Suranata et al., 2017; Van Woerkom et al., 2016).

Program Design: The learning outcomes were formulated at the levels of perception and comprehension according to the taxonomy of Wellman and Moore, based on the career development needs of the study group (Nazlı, 2011). The content was designed to help students recognize their personal characteristics and strengths, as well as to support them in making informed career decisions. Table 1 presents the content and intended learning outcomes of the psychoeducation program.

**Table 1.** Brief Description of Psychoeducation Program

| Sessions and Workshops | Theme | Learning Outcomes |
|---|---|---|
| Pre-Session | Structuring | Understands the general objectives of the career psychoeducation program. |
| Session 1 | Career Story and Strengths | Understands how to structure a career story. Recognizes the importance of strengths. |
| Workshop 1 | Early Memories | Evaluates significant life experiences that influence career behaviors. |
| Session 2 | Interests, Values, and S.W.O.T. Analysis | Identifies personal interests and values. |
| Workshop 2 | Applying the S.W.O.T. Analysis | Applies the S.W.O.T. analysis. |
| Session 3 | Vocational Personality Types | Understands vocational personality types. Associates personality types with occupational environments. |
| Workshop 3 | Hexagonal Garden Activity | Evaluates own vocational personality type. |
| Session 4 | Life Portrait | Recognizes life themes. Understands individual characteristics (interests, values, role models, personality types, strengths) that guide career behaviors. |
| Workshop 4 | Savickas' Career Construction Circle Activity | Understands whether career decisions are more focused on the past, present, or future. |
| Session 5 | Career Decision-Making | Understands the steps of the career decision-making process. Evaluates career alternatives. |
| Workshop 5 | Action Plan | Develops an action plan. |
| Session 6 | Resume and Job Interview | Understands how to prepare a resume. Recognizes key aspects of a job interview. |
| Workshop 6 | Job Interview Simulation | Applies what has been learned in a simulated job interview. |
| Session 7 | Career Barriers and Using Strengths | Recognizes the importance of using personal strengths to overcome career barriers. |
| Session 8 | General Evaluation and Closure | Evaluates oneself and the psychoeducation process. |

The psychoeducation program was implemented with the experimental group in the form of one session and one workshop per week. To enhance students' self-awareness, support their career decision-making processes, and enable the effective use of their personal strengths, a total of 8 psychoeducational sessions and 6 applied workshops were

conducted. Each session and workshop was planned to last approximately 50 minutes. A 15-minute break was provided before each workshop. While the sessions focused on providing information and raising awareness, the workshops were designed to encourage students' active participation and the application of their skills.

During the sessions, the researcher provided theoretical information aligned with the session themes. In the workshops, activities were conducted based on the learning outcomes of the corresponding sessions. To promote active participation throughout the process, group discussions, question-and-answer techniques, and role-playing activities were employed. Each session and workshop began with engaging and motivational elements to capture students' attention. For this purpose, the researcher utilized self-prepared forms, presentations, visuals, and videos. Special attention was paid to fostering group interaction and encouraging students to provide feedback. At the beginning of each session, the previous session was briefly reviewed, and homework assignments were discussed. Then, the objectives of the current session were shared with the participants. At the beginning of each workshop, the goals of the planned activities were explained. Both sessions and workshops concluded with a summary and an opportunity for students to share their thoughts and feelings.

To evaluate the effectiveness of the psychoeducation program, the **"***Strengths Self-Efficacy Scale*" and the "*Career Decision Scale*" were utilized. These scales were applied to both groups as pretest, posttest, and follow-up.

After the psychoeducation program was developed, feedback was obtained from two faculty members specialized in guidance and psychological counseling regarding its learning outcomes, content, activities, and techniques to be used. The feedback provided concrete suggestions to make the program more functional and applicable. First, it was suggested that the learning outcomes of each session should be limited to no more than three, as this would enhance students' concentration and contribute to their clearer understanding of the objectives. In terms of content, it was noted that the duration of some sessions might be insufficient due to content intensity; therefore, careful attention to time management and a more balanced structuring of the content were recommended. Furthermore, it was emphasized that planning workshops as separate activities would not only allow for more efficient use of time but also reinforce the knowledge acquired. The workshops were highlighted as supporting experiential learning, fostering group interaction, and enabling the integration of theoretical knowledge with everyday life. In addition, it was noted that group sharing based on students' own experiences would strengthen the functionality of the program. Regarding techniques, the use of applied methods such as brainstorming, role-playing, question-and-answer sessions, and group discussions was recommended to increase student engagement. Based on these suggestions, the program was revised: the learning outcomes were simplified, time balance across sessions was ensured, group sharing and applied techniques were incorporated, and the process was further supported with workshops. Following these revisions, a pilot implementation of the program was conducted with five students over four sessions. The pilot results indicated that students participated actively, found the activities comprehensible, and considered the program feasible in terms of time allocation. After the pilot study, the opinions of both experts and participants were taken into account to finalize the structure of session content, time management, and workshop activities.

**Data Collection Tools**

Strengths Self-Efficacy Scale (SSES): The original form of the scale was developed by Tsai et al. (2014), and the Turkish adaptation, including validity and reliability studies, was conducted by Dönmezoğulları and Nazlı (2019). The scale is designed to measure individuals' confidence in their ability to utilize their strengths. It consists of a single-factor structure representing general self-efficacy. The scale contains a total of 11 items. It is rated on a Likert-type scale ranging from 0 ("Not at all confident") to 10 ("Highly confident"). Total scores range from 0 to 110. Confirmatory factor analysis results indicated good model fit with the following values: $\chi^2/df$ = 2.80, SRMR = .044, GFI = .93, NFI = .97, CFI = .98, RMSEA = .079, and NNFI = .97. The Cronbach's alpha was .89. In addition, test-retest reliability analysis showed a coefficient of r = .735. In this study, the Cronbach's alpha was calculated as .72 for the SSES.

Career Decision Scale (CDS): The scale was developed by Osipow et al. (1976) to measure the certainty and indecision individuals experience in their career decisions. The Turkish adaptation, including validity and reliability analyses, was conducted by Büyükgöze-Kavas (2012). This is a Likert-type scale rated from 1 ("Not at all suitable for me") to 4 ("Completely suitable for me") and consists of 18 items in total. Similar to the original version, the Turkish form of the scale has a two-factor structure: the certainty subscale (2 items) and the indecision subscale (16 items). High scores in each subscale indicate a high level of certainty or indecision, respectively. The possible score range is 2 to 8 for the Certainty subscale and 16 to 64 for the Indecision subscale. Confirmatory factor analysis results demonstrated a good model fit: $\chi^2/df$ = 2.107, RMSEA = .06., GFI = .92, AGFI = .90, and CFI = .92. The Cronbach's alpha was .84 for the Certainty subscale and .86 for the Indecision subscale. Test-retest reliability coefficients were .77 for Certainty and .84 for Indecision. In the present study, only the 16-item Indecision subscale was applied. The Cronbach's alpha was calculated as .81 for the Indecision subscale.

**Data Analysis**

Prior to conducting statistical analyses, the assumptions underlying the use of parametric tests were assessed. To evaluate data normality, skewness and kurtosis values were reviewed in conjunction with the Shapiro-Wilk test. Results indicated that the distribution of scores on the SSES violated parametric assumptions. Accordingly, non-parametric techniques were employed: the Mann-Whitney U was used for between-group comparisons, while the Wilcoxon signed-rank was applied for within-group repeated measures. Conversely, CDS data satisfied the assumptions of normality and homogeneity of variances, permitting the use of parametric testing. Therefore, a two-way repeated measures ANOVA was conducted to assess group and time interactions. All analyses were carried out using SPSS version 21.

**Results**

In this section of the study, descriptive statistics related to the measurement instruments and the findings related to the study's hypotheses are outlined in this section. The mean and standard deviation values for SSES are shown in Table 2.

**Table 2.** Descriptive statistics for SSES

| Group | Pretest | | | Posttest | | Follow-up | |
|---|---|---|---|---|---|---|---|
| | n | X̄ | SD | X̄ | SD | X̄ | SD |
| Experimental | 16 | 72.12 | 14.81 | 79.93 | 10.63 | 76.43 | 12.23 |
| Control | 16 | 66.81 | 15.07 | 70.37 | 11.36 | 70.50 | 11.11 |

**Table 3.** Skewness-Kurtosis for SSES

| Group | Pretest | | Posttest | | Follow-up | |
|---|---|---|---|---|---|---|
| | Skewness | Kurtosis | Skewness | Kurtosis | Skewness | Kurtosis |
| Experimental | .062 | -1.235 | -.358 | -1.084 | .314 | -.461 |
| Control | .101 | -1.319 | -1.353 | 3.495 | -1.540 | 1.861 |

**Table 4.** Descriptive Statistics for Career Indecision

| Group | Pretest | | | Posttest | | Follow-up | |
|---|---|---|---|---|---|---|---|
| | n | X̄ | SD | X̄ | SD | X̄ | SD |
| Experimental | 16 | 37.68 | 4.65 | 23.68 | 3.59 | 26.25 | 5.38 |
| Control | 16 | 35.56 | 4.03 | 34.06 | 6.42 | 34.93 | 6.29 |

**Table 5.** Skewness and Kurtosis for career indecision

| Group | Pretest | | Posttest | | Follow-up | |
|---|---|---|---|---|---|---|
| | Skewness | Kurtosis | Skewness | Kurtosis | Skewness | Kurtosis |
| Experimental | -.140 | -.856 | .103 | -.716 | -.020 | -.881 |
| Control | .073 | -.841 | -.842 | .199 | -.503 | -.513 |

Table 2 illustrates the descriptive statistics for strengths self-efficacy across all measurement points. At the pretest stage, the experimental group had a mean score of 72.12 (SD = 14.81), whereas the control group scored a mean of 66.81 (SD = 15.07). Following the intervention, the experimental group's posttest mean increased to 79.93 (SD = 10.63), while the control group demonstrated a modest rise to 70.37 (SD = 11.36). At follow-up, the mean score of the experimental group slightly declined to 76.43 (SD = 12.23), with the control group's score remaining relatively stable at 70.50 (SD = 11.11). Skewness and kurtosis values for strengths self-efficacy are reported in Table 3.

In the study, skewness and kurtosis values were first examined to evaluate the normality. Skewness and kurtosis values ranging from -2 to +2 are generally interpreted as evidence supporting the assumption of normal distribution (George & Mallery, 2020). As shown in Table 3, the values for the experimental group were within the acceptable range for all measurements, indicating that the data followed a normal distribution. However, the control group's posttest kurtosis indicated a violation of normality. Büyüköztürk (2023) emphasized that skewness and kurtosis values alone may not be sufficient for assessing normality, and that using additional tests can provide more accurate results. Therefore, the Shapiro-Wilk test was applied to assess normality. Shapiro & Wilk (1965) noted that the test yields highly accurate results in small samples ($n \leq 20$), and that when $n = 19$, approximate and actual values converge. Given the small group sizes ($n = 16$), the Shapiro-Wilk was preferred for its higher precision in evaluating normality. The test results indicated that SSES scores for the experimental group conformed to a normal distribution ($p > .05$). However, the posttest ($W(16) = .874$, $p = .031$) and follow-up test ($W(16) = .819$, $p = .005$) results for the control group suggested a deviation from normality ($p < .05$). Therefore, non-parametric tests were used to analyze strengths self-efficacy scores. The descriptive statistics for the indecision are presented in Table 4.

As shown in Table 4, the experimental group's pretest mean was 37.68 (SD = 4.65), while the control group scored a similar average of 35.56 (SD = 4.03), suggesting comparable baseline levels. At posttest, a marked decrease was observed in the experimental group's mean, which dropped to 23.68 (SD = 3.59). Although the control group's mean also declined to 34.06 (SD = 6.42), the reduction was less pronounced. In the follow-up assessment, the experimental group's mean slightly increased to 26.25 (SD = 5.38), whereas the control group's mean remained relatively stable at 34.93 (SD = 6.29). Table 5 presents the skewness and kurtosis statistics related to career indecision.

Table 5 shows that skewness and kurtosis values for all measurement points in both groups fall within the acceptable range of -2 to +2, suggesting distributional normality. In addition, the Shapiro-Wilk test results indicated that significance levels exceeded .05 across all measurements, further supporting the assumption of normality. These findings justify the application of parametric analyses, as the data conform to the required distributional assumptions, enhancing the validity of the statistical results.

Prior to testing the hypotheses, preliminary analyses were conducted to assess whether significant differences existed between the pretest scores of the experimental and control groups. This step aimed to ensure that the groups were statistically comparable at baseline. Since strengths self-efficacy data did not follow a normal distribution, the difference between the groups' pretest scores was analyzed using the Mann-Whitney U test. On the other hand, as the data related to indecision met the normality assumption, To compare the pretest scores between groups, an independent samples t-test was employed. Since the strengths self-efficacy scores did not meet the normality assumption, the non-parametric Mann-Whitney U test was applied, and the results are summarized in Table 6.

In Table 6, the difference in pretest scores for strengths self-efficacy between the experimental and control groups was not statistically significant ($p > .05$), indicating comparable baseline levels. Table 7 presents the results of the independent samples t-test conducted to evaluate group differences in career indecision at the pretest stage.

**Table 6.** Mann-Whitney U for SSES pretest scores

| Group | n | Mean Rank | Sum of Ranks | U | z | p |
|---|---|---|---|---|---|---|
| Experimental | 16 | 18.03 | 288.50 | 103.50 | -.924 | .361 |
| Control | 16 | 14.97 | 239.50 | | | |

**Table 7.** Independent Samples t-Test for the Career Indecision Pretest Scores

| t | df | *p* | Mean Difference | 95%CI |
|---|---|---|---|---|
| 1.380 | 30 | .178 | 2.12 | -1.02 – 5.27 |

**Table 8.** Mann-Whitney U for the SSES Posttest Scores

| Group | n | Mean Rank | Sum of Ranks | U | Z | *p* |
|---|---|---|---|---|---|---|
| Experimental | 16 | 19.31 | 318.50 | 73.50 | -2.056 | .040 |
| Control | 16 | 13.09 | 209.50 | | | |

**Table 9.** Wilcoxon for the SSES pretest and posttest scores

| Group | n | Rank | Mean Rank | Sum of Ranks | Z | *p* |
|---|---|---|---|---|---|---|
| Experimental | 14 | Positive Ranks | 8.57 | 120 | -2.690 | .007 |
| | 2 | Negative Ranks | 8.00 | 16 | | |
| Control | 9 | Positive Ranks | 9.89 | 89.00 | -1.087 | .277 |
| | 7 | Negative Ranks | 6.71 | 47.00 | | |

The analysis yielded a result of $t(30) = 1.380$, ($p > .05$). The observed mean difference between the experimental and control groups was 2.12, with a 95% CI ranging from -1.02 to 5.27. These findings indicate that there was no statistically significant difference between the groups regarding their pretest scores on career indecision. This outcome suggests that both groups began the study with comparable levels of indecision. Given the lack of significant differences in pretest scores on both scales, the analysis proceeded to evaluate changes observed at the posttest and follow-up stages.

**Results Related to the First and the Second Hypotheses**

To evaluate the first hypothesis, a Mann-Whitney U test was employed to compare the posttest scores of the experimental and control groups. The outcomes of this analysis are detailed in Table 8.

As a result of the analysis, the mean rank of the experimental group was 19.31 and sum of ranks 318.50, while the control group had a mean rank of 13.09 and sum of ranks 209.50. The Mann-Whitney U test indicated a statistically significant difference between the posttest scores of both groups ($p < .05$). These results indicate that the intervention led to a significant enhancement in strengths self-efficacy among participants in the experimental group relative to the control group. To further explore within-group changes from pretest to posttest, the Wilcoxon signed-rank test was applied separately for both groups. The findings are summarized in Table 9.

The Wilcoxon signed-rank test revealed a statistically significant difference between pretest and posttest scores in the experimental group ($z = -2.690$, $p < .05$). Within this group, 14 participants showed an increase in scores (positive ranks) with a mean rank of 8.57 and a total rank sum of 120, whereas 2 participants exhibited a decrease (negative ranks) with a mean rank of 8.00 and a sum of 16. These findings suggest that the strengths-based psychoeducational program effectively enhanced self-efficacy among experimental group participants. In contrast, the control group showed no statistically significant difference between pretest and posttest scores ($z = -1.087$, $p > .05$). Specifically, 9 participants demonstrated positive change (mean rank = 9.89, sum = 89.00), while 7 showed negative change (mean rank = 6.71, sum = 47.00). These results imply that, in the absence of intervention, strengths self-efficacy levels in the control group's scores remained statistically stable.

Mann-Whitney U and Wilcoxon tests are commonly used to identify statistically significant differences in between-group and within-group repeated measurements. However, these tests do not directly indicate the effect size. Therefore, to assess the magnitude of the effects in both tests, the effect size value r can be calculated by dividing the obtained z value by the square root of n (Pallant, 2020). According to Cohen (1988), an r value of .10 is considered a small effect, .30 a medium effect, and .50 or above a large effect. A Mann-Whitney U test was performed to evaluate posttest rank score differences between the experimental and control groups, yielding an effect size (r) of .36 for strengths self-efficacy suggesting a medium effect favoring the experimental group. Additionally, within-group changes in the experimental group were assessed using the Wilcoxon signed-rank test. The resulting effect size for the comparison of pretest and posttest scores on strengths self-efficacy was calculated as $r = .48$, indicating a medium increase in self-efficacy levels following the psychoeducational intervention.

To examine the second hypothesis, the difference between the posttest and follow-up test scores of the groups was analyzed. The results are presented in Table 10.

**Table 10.** Wilcoxon for the SSES Posttest and Follow-up

| Group | n | Rank | Mean Rank | Sum of Ranks | Z | *p* |
|---|---|---|---|---|---|---|
| Experimental | 5 | Positive Ranks | 6.60 | 33.00 | -1.540 | .124 |
| | 10 | Negative Ranks | 8.70 | 87.00 | | |
| | 1 | Equal | | | | |
| Control | 7 | Positive Ranks | 10.14 | 71.00 | -.156 | .876 |
| | 9 | Negative Ranks | 7.22 | 65.00 | | |

**Table 11.** Levene's Test for Career Indecision

| Measurement | n | *df1* | *df2* | F | *p* |
|---|---|---|---|---|---|
| Pretest | 32 | 1 | 30 | .37 | .546 |
| Posttest | 32 | 1 | 30 | 3.01 | .093 |
| Follow up | 32 | 1 | 30 | .19 | .660 |

**Table 12.** Two-Way Repeated Measures ANOVA for the Career Indecision Pretest, Posttest, and Follow-up

| Model | Sum of Squares | *df* | Mean Square | F | *p* | $\eta^2$ |
|---|---|---|---|---|---|---|
| Between-Groups | | | | | | |
| Group | 765.01 | 1 | 765.01 | 14.36 | .001 | .324 |
| $Error_{Group}$ | 1597.89 | 30 | 53.26 | | | |
| Within-Groups | | | | | | |
| Measurement | 1060.18 | 1.45 | 728.77 | 39.08 | .000 | .566 |
| Group*Measurement | 736.02 | 1.45 | 505.94 | 27.13 | .000 | .475 |
| $Error_{Group*Measurement}$ | 813.79 | 43.64 | 18.64 | | | |

**Table 13.** Career Indecision Bonferroni test results

| | | Experimental | | | Control | | |
|---|---|---|---|---|---|---|---|
| **Group** | **Measurement** | **Pretest** | **Posttest** | **Follow-up** | **Pretest** | **Posttest** | **Follow-up** |
| Experimental | Pretest | | 14.00* | 11.43* | 2.12 | 3.62 | 2.75 |
| | Posttest | | | 2.56 | 11.87* | -10.37* | -11.25* |
| | Follow-up | | | | -9.31* | -7.81* | -8.68* |
| Control | Pretest | | | | | 1.50 | 0.63 |
| | Posttest | | | | | | 0.87 |
| | Follow-up | | | | | | |

*p<.05

The analysis revealed no statistically significant difference between the posttest and follow-up scores of the experimental group ($p > .05$), suggesting that the gains in strengths self-efficacy were maintained two months after the intervention. Likewise, the control group showed no significant change between posttest and follow-up assessments ($p > .05$), indicating that, in the absence of any intervention, self-efficacy levels remained consistent over time.

**Results Related to the Third and the Fourth Hypotheses**

To evaluate the third and the fourth hypotheses, a two-way repeated measures ANOVA was conducted. Additionally, Bonferroni post hoc comparisons were conducted to determine the specific time points at which significant differences occurred both within and between groups. The assumptions underlying this analysis—namely, normality, homogeneity of variances, and sphericity—were considered in accordance with Agresti (2018). For the variable of career indecision, repeated measures demonstrated acceptable skewness and kurtosis values, and the Shapiro-Wilk test results supported the assumption of normality. Furthermore, Levene's test was used to assess variance homogeneity across the pretest, posttest, and follow-up.

Levene's test results confirmed the assumption of homogeneity of variances at all three measurement points: pretest, $F(1, 30) = 0.37$, $p > .05$; posttest, $F(1, 30) = 3.01$, $p > .05$; and follow-up, $F(1, 30) = 0.19$, $p > .05$. To assess sphericity, Mauchly's test was conducted and yielded a significant result (Mauchly's $W = .625$, $\chi^2 = 13.62$, $p < .05$), indicating that the sphericity assumption was violated. Following Field's (2018) recommendation—specifically when Mauchly's W falls below .750—the Greenhouse-Geisser correction was used in interpreting the ANOVA results. Despite the sphericity violation, the overall data met the necessary assumptions for conducting a two-way repeated measures ANOVA. The outcomes of this analysis are presented in Table 12.

The analysis revealed a statistically significant main effect of group ($F(1, 30) = 14.36$, $p < .01$, $\eta^2 = .324$), indicating a notable difference in career indecision scores between the two groups, with a large effect size. A significant main effect of time was also observed ($F(1.45, 43.64) = 39.08$, $p < .01$, $\eta^2 = .566$), suggesting that mean scores varied significantly across measurement occasions, independent of group membership. This result implies that at least one pairwise comparison among the three time points yielded a significant difference. Furthermore, a significant interaction between group and time was identified ($F(1.45, 43.64) = 27.13$, $p < .01$, $\eta^2 = .475$), demonstrating that changes in career indecision scores over time differed substantially between the experimental and control groups. The effect size for this interaction indicates a strong group-dependent variation in score trajectories. To further clarify which specific comparisons contributed to these effects, Bonferroni-adjusted post hoc analyses were conducted, with results reported in Table 13.

A significant reduction was observed in the experimental group's mean career indecision scores from pretest ($M = 37.68$) to posttest ($M = 23.68$). However, the difference between the posttest and follow-up ($M = 26.25$) scores was not statistically significant, indicating stability over time. In contrast, the control group exhibited no meaningful changes across the three measurement points—pretest ($M = 35.56$), posttest ($M = 34.06$), and follow-up ($M = 34.93$). These findings provide empirical support for the study's third and fourth hypotheses. Initially, both groups demonstrated comparable levels of career indecision. Following the intervention, a substantial decline was detected in the experimental group relative to the control group. Moreover, the absence of significant change between posttest and follow-up scores in both groups suggests that the intervention's positive impact was sustained over the two-month follow-up period. Thus, the psychoeducational program appears to have effectively reduced career indecision among participants in the

experimental group, with this improvement persisting beyond the immediate post-intervention phase.

**Discussion, Conclusion, and Recommendations**

This study investigated the impact of a psychoeducational program grounded in CCT on university students' strengths self-efficacy and career decision. The findings demonstrated that participants in the experimental group experienced a statistically significant enhancement in their strengths self-efficacy levels relative to those in the control group. This effect was also sustained in the follow-up measurement conducted two months later. These findings confirm the first and the second hypotheses of the study. The results align with previous studies in the literature that emphasize the effectiveness of career intervention programs aimed at enhancing strengths (Littman-Ovadia et al., 2014; Wang & Ding, 2023) and self-efficacy (Parsakia et al., 2024). In this regard, it can be concluded that career counseling interventions positively support individuals' strengths and self-efficacy.

A review of the relevant literature reveals that in recent years, intervention programs and concepts rooted in positive psychology have increasingly been integrated into the field of career counseling (Constantini & Sartori, 2018; Donaldson et al., 2019). Numerous studies have focused on strengths, one of the key concepts of positive psychology. Intervention programs based on strengths have been found to positively affect career decision (Atanasova et al., 2024), the use of personal strengths (Littman-Ovadia et al., 2014), academic performance (Parsakia et al., 2022), career goal setting and sense of meaning in life (Yuen et al., 2022), career aspiration and well-being (Stavropoulou et al., 2024), career adaptability, self-efficacy, and job engagement (Green, 2023), psychological resilience (Suranata et al., 2017), self-esteem (Darbani & Parsakia, 2022), future time perspective and self-compassion (Mirshafie & Jafari, 2019), career satisfaction (Ding et al., 2024), vocational identity (Toporek & Cohen, 2017), and life satisfaction (Proctor et al., 2011). These findings suggest that interventions focused on personal strengths can contribute not only to career development but also to individuals' academic, social, and emotional growth. A fundamental principle of developmental guidance and counseling model is to support students in acquiring the knowledge, skills, and competencies necessary for growth across academic, career, and socio-emotional domains (Nazlı, 2011). As emphasized by ASCA (2019), developmental guidance focuses on fostering students' academic, career, and emotional growth through group-based and participatory experiences that promote personal growth. In this regard, psychoeducation can be considered one of the key practices that supports individuals' life-career development. Psychoeducation is a group-based experience that aims to equip individuals with knowledge, skills, and competencies specific to different developmental areas (Güçray et al., 2009). Therefore, strength-based career psychoeducation programs can be said to contribute holistically to students' development in alignment with the goals of developmental guidance and counseling services.

Strength-based intervention programs primarily aim to help individuals recognize, develop, and utilize their inherent potential. Awareness of strengths is important, but in career development, the ability to apply these strengths effectively in decision-making and problem-solving contexts is equally critical (Tsai et al., 2014). Seligman et al. (2005) proposed that strengths-based interventions should be developed in three stages. First, individuals become aware of their strengths and engage in personal reflection. Second, they evaluate how these strengths have contributed to their past and current successes in academic or professional settings. Finally, individuals assess how they can apply their strengths in the future to achieve success in school and at work.

As such, strength-based career interventions should not only focus on enhancing awareness but also emphasize the practical use of strengths in everyday problem-solving. Individuals with high strengths self-efficacy are more likely to apply their strengths in both academic and work contexts (Tsai et al., 2014; Wang & Ding, 2023). Previous studies have shown that self-efficacy supports subjective well-being and the use of strengths (Weber et al., 2013), facilitates the application of strengths (Chu et al., 2022), and enhances career decision-making (Sandra & Mulasih, 2021). Moreover, strengths contribute to career goal attainment and ease the career decision-making process (Atanasova et al., 2024). Savickas (2015) also emphasized that, during the career construction process, clients should evaluate how they can use their strengths during career transitions and in their occupational lives. Therefore, it is important that career counseling interventions designed to support strengths not only help individuals recognize their strengths which are combinations of their knowledge, skills, and abilities but also enhance their confidence in using these strengths in daily life. In the psychoeducation program developed for this study, the three stages proposed by Seligman et al. (2005). In the first session, participants were introduced to foundational concepts related to strengths. In the second session, the role of strengths in decision-making was emphasized, and participants were encouraged to assess their strengths and areas for improvement. During the second workshop, a S.W.O.T. analysis was conducted focusing on the decision-making process. In the fourth session, participants evaluated how they had applied their strengths in their past and present academic or career achievements, using information gathered during the career construction interview. In the fifth session, specific steps toward achieving career goals were defined, and an action plan was created. The seventh session included group sharing of positive emotions related to using strengths in daily life, and emphasized that effective use of strengths is a key factor in achieving success. It can be stated that the program's focus on knowledge, awareness, and practice regarding strengths contributed to its effectiveness in enhancing students' strengths self-efficacy.

The study revealed a significant reduction in career indecision among the experimental group, which persisted at the two-month follow-up. Accordingly, the third and the fourth hypotheses of the study were confirmed. The finding supports earlier experimental evidence on career decision interventions (Maare, 2018; Thrift et al., 2012). Moreover, the use of personal strengths has been shown to support individuals in gaining the experiences needed during the career decision-making process, thereby positively influencing their ability to make decisions (Atanasova et al., 2024). These findings highlight the contribution of strengths-based approaches to improving decision-making processes in the career context.

Career transitions are significant turning points that individuals encounter during their career development process. According to Super (1980), individuals are required to make important decisions during life-career transitions such as graduation, changes in education, and employment. In this regard, effective career planning is essential for individuals to

successfully manage these transitions (Laser, 2019). The literature indicates that career planning is associated with career satisfaction (Salleh et al., 2020), career development (Adekola, 2011), self-efficacy (Cardoso & Moreira, 2009), and career decision-making (Cho, 2019). Career planning is a process through which individuals shape their future steps by understanding both themselves and the world of work. An important element in individual career planning is the locus of control, which enables individuals to base their decisions on internal motivation rather than external influences (Yanita et al., 2023). Individuals with a high internal locus of control tend to take greater responsibility and act more decisively in reaching their career goals, making autonomous decisions independent of external pressures (Algadheeb, 2015). Previous research has shown that psychoeducation can enhance both self-efficacy and internal locus of control (Grabski et al., 2016). Furthermore, psychoeducation provides individuals with social support to foster personal growth. In this context, psychoeducational programs can contribute to individuals' career planning processes by strengthening their self-efficacy and sense of internal control, helping them to set vocational goals, make career-related decisions, and develop effective strategies to achieve these goals.

According to the CIP approach, the career decision process consists of several key stages: gaining awareness and acquiring information about oneself and available career options; evaluating the advantages and disadvantages of each option; identifying the most suitable career path; and finally, taking action in line with one's choice (Sampson et al., 1992). Self-exploration and career exploration are crucial for enhancing an individual's decision-making competence (Abdullah et al., 2018). A lack of adequate knowledge about oneself and one's career options is considered an internal career barrier factors that hinder progress in career development and make the implementation of career choices more difficult (Lent et al., 2000). According to Super's theory of career development, university years correspond to the exploration stage, during which individuals attempt to understand their interests, abilities, personality traits, strengths, and vocational values, while also gaining information about possible career paths (Super, 1980). A lack of knowledge about the self and career alternatives is associated with negative career thoughts and emotions (Kelly & Shin, 2009), maladaptive coping strategies for dealing with career indecision (Boo & Kim, 2020), anxiety (Arbona et al., 2021), and difficulties in career decision-making and over-reliance on others during the decision-making process (Shin & Kelly, 2015). These findings suggest that insufficient self and occupational knowledge not only impairs the career decision-making process but also negatively affects psychological well-being. Moreover, the association between information deficits and negative thinking, anxiety, and dependent decision-making highlights the importance of interventions in career counseling that foster self-awareness and occupational insight. In line with this, the career psychoeducation program implemented in the study introduced participants to the stages of the CIP decision-making model. Activities were then conducted to enhance participants' awareness of their individual characteristics (such as interests, strengths, vocational personality types, and career values) and the career options available to them after graduation. Additional activities included preparing a resume for job applications and identifying life themes. In the next stage, participants were guided to evaluate career alternatives and make informed decisions based on personal fit. For this purpose, a cost-benefit analysis activity was used to help participants weigh the advantages and disadvantages of each option. In the final stage of the decision-making process, which involves taking action, participants completed activities such as S.W.O.T. analysis and "My Career Barriers and My Strengths," which helped them reflect on their strengths, weaknesses, barriers, and opportunities. Finally, through an action planning activity, participants were encouraged to take concrete steps toward implementing their career decisions.

The relevant literature indicates that career decision-making intervention programs are effective in enhancing individuals' levels of career decision-making. Studies conducted internationally have yielded similar findings. Prior research provides substantial support for the effectiveness of career intervention programs in enhancing various career-related competencies. For example, Lam & Santos (2018) observed that university students participating in a career decision-making intervention exhibited higher levels of decision-making self-efficacy and lower levels of indecision compared to a control group. Similarly, Fouad et al. (2009) reported that their intervention significantly boosted students' self-efficacy in making career decisions while alleviating decision-making difficulties. Cheung & Jin (2015) found that involvement in a career-focused program improved students' career adaptability, exploratory behavior, occupational knowledge, and decision-making competence. In another study, Freeman et al. (2017) demonstrated that a structured intervention elevated students' career decision-making capacity, clarity of goals, and satisfaction, while reducing uncertainty and negative cognitions related to career choices. Park et al. (2020) also documented sustained improvements in students' self-efficacy for career exploration and decision-making four weeks after program completion. Furthermore, Pambudi et al. (2019) showed that a psychoeducational program enhanced high school students' adaptability and career decision-making self-efficacy. In a more recent study, Cardoso et al. (2022) confirmed that an intervention based on CCT significantly improved ninth-grade students' self-efficacy in career decision-making and their adaptability. In Türkiye, similar results have been reported. Eşkisu et al. (2020) found that a psychoeducation program increased guidance and psychological counseling students' expectations regarding career decision-making competence and vocational outcome expectations. Demirtaş-Zorbaz et al. (2023) reported improvements in university students' career decision-making self-efficacy following a psychoeducation program. Mutlu & Kaya (2023), in a study involving university students, found that an online psychoeducation program moderately improved careful decision-making style, while reducing avoidant and procrastinative decision-making styles. The findings of both international and national studies are consistent with those of the present research. In light of these findings, psychoeducational programs centered on career planning appear to be valuable in supporting individuals through periods of vocational transition and uncertainty, while also promoting more effective adaptation to the world of work. Additionally, such interventions may foster greater self-awareness, facilitate the clarification of career objectives, enhance decision-making capacity, and equip individuals with strategies to manage potential barriers in their career development.

In conclusion, the findings indicated that the psychoeducation program based on Career Construction

Theory had a significant impact on the experimental group. Compared to the control group, participants who received the intervention demonstrated notably higher strengths self-efficacy and lower levels of career indecision from pretest to posttest. Furthermore, the persistence of these effects in the follow-up measurement conducted two months later suggests that the gains from the program were long-lasting. Given these findings, the career psychoeducation program may be effectively implemented in university career centers to support students' career development. Future experimental studies may also explore the program's potential effects on broader outcomes, including academic performance, career and life satisfaction, perceived meaning in life, and well-being. The findings of this study are limited to third-year undergraduate students. Future studies could adapt and apply the program to students from different academic levels, based on their specific career development needs, and evaluate its effectiveness accordingly. Finally, to assess the long-term effectiveness of the career psychoeducation program, future studies may include follow-up sessions with the experimental group.

## Author Contributions

This study was produced from the first author's doctoral dissertation conducted under the supervision of the second author. The authors contributed equally to the editing of the article and the development of the final manuscript. All authors have read and approved the final version of the study.

## Ethical Decleration

This study was conducted with the approval of the Ankara University Social Sciences Sub-Ethics Committee, granted during the meeting held on 03.12.2018 (Protocol No. 12/161).

## Conflict of Interest

The authors declare that there is no conflict of interest with any institution or person within the scope of the study.

## References


Abdullah, N., Hussin, N., Shonubi, O. A., Ghazali, S. R., & Talib, M. A. (2018). Career decision-making competence, self-knowledge, and occupational exploration: a model for university students. *Journal of Technical Education and Training, 10*(1), 71-81. https://doi.org/10.30880/jtet.2018.10.01.006

Abu Omar, D., Kirkman, A., Scott, C., Babicova, I., & Irons, Y. (2024). Positive psychology interventions to increase self-esteem, self-efficacy, and confidence and decrease anxiety among students with dyslexia: A narrative review. *Youth*, *4*(2), 835-853. https://doi.org/10.3390/youth4020055

Adekola, B. (2011). Career planning and career management as correlates for career development and job satisfaction. A case study of Nigerian Bank Employees. *Australian Journal of Business and Management Research, 1*(2), 100-112. https://doi.org/10.52283/NSWRCA.AJBMR.20110102A07

Agresti, A. (2018). *Statistical methods for the social sciences* (5th Ed.). Pearson.

Aktaş, Y. (1997). Üniversite öğrencilerinin uyum düzeylerinin incelenmesi: Uzunlamasına bir çalışma. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 13*(13), 107-110.

Al Ajmi, A. A., Al Kharusi, F. S., Al Khamisi, A. H., & Krs II, F. S. (2024). Prevalence of Career Indecision and Factors Influencing It Among Medical Students and Interns in Oman: A Cross-Sectional Questionnaire Study. *Cureus, 16(*7), 1-13. https://doi.org/10.7759/cureus.63953

Algadheeb, N. A. (2015). Professional/Career Orientation, Awareness, and Their Relationship to Locus of Control. *Journal of College Teaching & Learning, 12*(1), 13-38. https://doi.org/10.19030/tlc.v12i1.9067

Amaral, F., Henning, M., Moir, F., & Krageloh, C. (2024). A structural equation model analysis of the relationships between career indecision, sense of control, self-efficacy, rumination and depression in high school students. *Discover Psychology, 4*(1), 1-15. https://doi.org/10.1007/s44202-024-00257-9

American School Counselor Association. (2019). *The ASCA national model: A framework for comprehensive school counseling programs*. Alexandria,VA.

Anozie, E. U., Eze, J. E., Oti, P. O., & Asogwa, F. O. (2024). Roles of school belongingness and career indecision on academic performance among secondary school students in Southeast Nigeria. *Journal of Psychology and Allied Disciplines, 3*(1), 73-86.

Arbona, C., Fan, W., Phang, A., Olvera, N., & Dios, M. (2021). Intolerance of uncertainty, anxiety, and career indecision: A mediation model. *Journal of Career Assessment, 29*(4), 699-716. https://doi.org/10.1177/10690727211002564

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American psychologist, 55*(5), 469-480. https://doi.org/10.1037/0003-066X.55.5.469

Arnett, J. J. (2018). Conceptual foundations of emerging adulthood. In J. L. Murray & J. J. Arnett (Eds.), *Emerging adulthood and higher education* (pp. 11-24). Routledge. https://doi.org/10.4324/9781315623405-2

Arnett, J. J. (2024). *Emerging adulthood: The winding road from the late teens through the twenties* (3th Ed.). Oxford University Press. https://doi.org/10.1093/oso/9780197695937.001.0001

Aşık, G., & Akgül, H. (2022). Üniversite öğrencilerinin kariyer stresleri, kariyer kararında ailenin etkisi ve kariyer kararı verme yetkinlik algıları arasındaki ilişkinin incelenmesi. *Van Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi, 19*(1), 192-212. https://doi.org/10.33711/yyuefd.1083796

Atak, H. (2005). *Beliren yetişkinlik: Yeni bir yaşam döneminin Türkiye'de incelenmesi*. Yayınlanmamış yüksek lisans tezi. Ankara Üniversitesi, Eğitim Bilimleri Enstitüsü.

Atak, H. (2011). Gradual transition to adulthood: Is emerging adulthood the only main road?. *Elementary Education Online*, *10*(1), 51-67.

Atak, H., Tatlı, C. E., Çokamay, G., Büyükpabuşcu, H., & Çok, F. (2016). Yetişkinliğe geçiş: Türkiye'de demografik ölçütler bağlamında kuramsal bir gözden geçirme. *Psikiyatride Güncel Yaklaşımlar*, *8*(3), 204-227. https://doi.org/10.18863/pgy.238184

Atanasova, N., van Woerkom, M., Spanouli, A., Botke, J., & van Roekel, E. (2024). The effects of a happiness strengths ıntervention on career decision-making self-efficacy among career starters. *The Career Development Quarterly, 73*(1), 16-31. https://doi.org/10.1002/cdq.12369

Atitsogbe, K. A., Samson, A., Sarazin-Frey-Pépin, É., El Hamdany, Y., & McCrindle, C. R. (2024). The influence of career indecision on life satisfaction among grade 12 Ontario students: career choice support as mediator and moderator. *International Journal for Educational and Vocational Guidance*, 1-25. https://doi.org/10.1007/s10775-024-09717-z

Bakker, A. B., & Van Wingerden, J. (2021). Do personal resources and strengths use increase work engagement? The effects of a training intervention. *Journal of Occupational Health Psychology, 26*(1), 20-30. https://doi.org/10.1037/ocp0000266

Blustein, D. L., Lysova, E. I., & Duffy, R. D. (2023). Understanding decent work and meaningful work. *Annual Review of Organizational Psychology and Organizational Behavior*, *10*(1), 289-314. https://doi.org/10.1146/annurev-orgpsych-031921-024847

Boo, S., & Kim, S.-H. (2020). Career Indecision and Coping Strategies among Undergraduate Students. *Journal of Hospitality & Tourism Education, 32*(2), 63-76. https://doi.org/10.1080/10963758.2020.1730860

Brown, N. W. (2018). *Psychoeducational groups* (4th Ed.). Routledge. https://doi.org/10.4324/9781315169590

Brown, S. D. & Lent, R. W. (2020). Career Development and Counseling: An Introduction. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (3th Ed., pp. 1-33). Wiley. https://doi.org/10.1002/9781394258994

Büyükgöze-kavas, A. (2012). Turkish adaptation of career decision scale: Validity and reliability study. *Turkish Psychological Counseling and Guidance Journal, 4*(38), 159-168.

Büyüköztürk, Ş. (2023). *Sosyal Bilimler için Veri Analizi El Kitabı* (30.Baskı). Ankara: Pegem Akademi Yayınevi.

Cardoso, P., & Moreira, J. M. (2009). Self-efficacy beliefs and the relation between career planning and perception of barriers. *International Journal for Educational and Vocational Guidance, 9*, 177-188. https://doi.org/10.1007/s10775-009-9163-2

Cardoso, P., Duarte, M. E., Pacheco, L., & Janeiro, I. N. (2022). Life Design Group-Based Intervention Fostering Vocational Identity, Career Adaptability, and Career Decision-Making Self-Efficacy. *Cypriot Journal of Educational Sciences, 17*(5), 1453-1467. https://doi.org/10.18844/cjes.v17iSI.1.6674

Cheung, R., & Jin, Q. (2016). Impact of a career exploration course on career decision making, adaptability, and relational support in Hong Kong. *Journal of Career Assessment, 24*(3), 481-496. https://doi.org/10.1177/1069072715599390

Cho, E. J. (2019). Effects of individual career plan program on nursing students' career decision-making self-efficacy, career decision level and career resilience. *Journal of Health Informatics and Statistics, 44*(4), 400-409. https://doi.org/10.21032/jhis.2019.44.4.400

Choi, M., Kang, M., & Ju, J. (2024). Relationship between career identity, career decision level and career preparation behavior of paramedic students after clinical practice. *The Korean Journal of Emergency Medical Services, 28*(2), 63-75.

Chu, X., Zhang, L., & Li, M. (2022). Nurses' strengths use and turnover intention: The roles of job crafting and self-efficacy. *Journal of Advanced Nursing, 78*(7), 2075-2084. https://doi.org/10.1111/jan.15124

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd Ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Costantini, A., & Sartori, R. (2018). The intertwined relationship between job crafting, work-related positive emotions, and work engagement. Evidence from a positive psychology intervention study. *The Open Psychology Journal, 11*(1), 210-221. https://doi.org/10.2174/1874350101811010210

Creswell J. W., & Creswell, J. D. (2023). *Research design: Qualitative, Quantitative and mixed methods approaches* (6th Ed.). SAGE.

Csikszentmihalyi, M. & Seligman, M. E. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5-14. https://doi.org/10.1037/0003-066X.55.1.5

Da Silva, R., Rocha, A. M., & Francisco, D. (2022). Virtues and character strengths, subjective well being and academic achievement: An exploratory study with Angolan University students. In *Embracing well-being in diverse African contexts: Research perspectives* (pp. 275-296). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-85924-4_12

Darbani, S. A., & Parsakia, K. (2022). The effectiveness of strength-based counseling on the self-esteem of women in conflicted marital relationships. *Journal of Psychology of Woman, 3*(1), 46-55. https://doi.org/10.61838/kman.pwj.3.1.5

Delucca, G. & Goldstein, J. (2020). *Positive psychology in practice*. Rockridge Press.

Demir, R., Aydoğan, M., & Murat, M. (2022). Güçlü yönler/karakter güçleri temelli okul müdahale programı. *Humanistic Perspective, 4*(3), 568-588. https://doi.org/10.47793/hp.1164833

Demirtaş-Zorbaz, S., Korkut-Owen, F., Arıcı-Şahin, F., & Mutlu, T. (2023). Career sailboat: A model for enhancing career decision-making self-efficacy among job-seekers. *British Journal of Guidance & Counselling, 51*(2), 284-297. https://doi.org/10.1080/03069885.2023.2177615

Ding, H., Liu, J., & Yu, E. (2024). How and when do strengths work? The effect of strengths-based leadership on follower career satisfaction. *Personnel Review, 53*(6), 1392-1407. https://doi.org/10.1108/PR-07-2022-0485

Dirwan, D., Rajindra, R., Farid, F., Mande, H., Nursiah, N., & Supriadi, A. (2024). The influence of organizational culture, organizational commitment, on motivation and job satisfaction of employees and lecturers at muhammadiyah university of palu. *International Journal of Health, Economics, and Social Sciences*, *6*(3), 904-918.

Donaldson, S. I., Lee, J. Y., & Donaldson, S. I. (2019). Evaluating positive psychology interventions at work: A systematic review and meta-analysis. *International Journal of Applied Positive Psychology, 4*(3), 113-134. https://doi.org/10.1007/s41042-019-00021-8

Dönmezoğulları, C., & Nazlı, S. (2019). Güçlü yönler öz yeterlilik ölçeği Türkçe formunun geçerlik ve güvenirliği. *Anemon Muş Alparslan Üniversitesi Sosyal Bilimler Dergisi, 7*(4), 257-265. https://doi.org/10.18506/anemon.462822

Erden-Çınar, S., & Eminoğlu, Z. (2020). The effect of cognitive behavioral based psychoeducation program on psychological resilience and emotion regulation. *OPUS: International Journal of Society Researches, 21*(15), 555-582.

Erdoğan, S., Şanli, H., & Şimşek Bekir, H. (2005). Gazi Üniversitesi Eğitim Fakültesi öğrencilerinin üniversite yaşamına uyum durumları. *Kastamonu Eğitim Dergisi, 13*(2), 479-496.

Eroğlu, M., & Gündoğdu, H. (2021). Beliren yetişkinlik dönemindeki bireylerin kişilik özelliklerinin incelenmesi. *International Journal of New Approaches in Social Studies*, *5*(1), 278-293. https://doi.org/10.38015/sbyy.946518

Eryılmaz, A., ve Mutlu, T. (2017). Yaşam Boyu Gelişim Yaklaşımı Perspektifinden Kariyer Gelişimi ve Ruh Sağlığı. *Psikiyatride Guncel Yaklasimlar*, *9*(2), 227– 227. https://doi.org/10.18863/pgy.281802

Eşkisu, M., Haspolat, N. K., & Ağırkan, M. (2020). Psikolojik danışman adaylarının kariyer kararı yetkinlik ve mesleki sonuç beklentilerinin geliştirilmesi. *OPUS International Journal of Society Researches, 16*(31), 4186-4209. https://doi.org/10.26466/opus.720708

Field, A. (2018). *Discovering statistics using SPSS for Windows* (5th Ed.). Sage Publications.

Fouad, N., Cotter, E. W., & Kantamneni, N. (2009). The effectiveness of a career decision-making course. *Journal of Career Assessment, 17*(3), 338-347. https://doi.org/10.1177/1069072708330678

Freeman, V. F., Lenz, J. G., & Reardon, R. C. (2017). Career course impact on college students' career decision and affective states. *Vistas Online, 32*(1), 1-14.

Gati, I., Levin, N., & Landman-Tal, S. (2019). Decision-making models and career guidance. In International handbook of career guidance. In J. A. Athanasou, & R. Van Esbroeck (Eds.), *International handbook of career guidance* (2nd Ed., pp.115–146). Springer.
https://doi.org/10.1007/978-3-030-25153-6_6

Gazo, A. M., Mahasneh, A. M., & Al-Jobour, F. Q. (2024). Vocational Identity and its Relationship to Psychological Well-Being and Career Thoughts among University Students. *Islamic Guidance and Counseling Journal, 7*(2), 1-13. https://doi.org/10.25217/0020247454000

George, D. & Mallery, M. (2020). *IBM SPSS statistics 26 step by step: A simple guide and reference*. (16th ed.). Routledge. https://doi.org/10.4324/9780429056765

Green, Z. A. (2023). Strengthening career adaptation among school teachers in Pakistan: Test of strengths-based career intervention imparted through emotionalized learning experiences. *International Journal for Educational and Vocational Guidance, 23*(1), 43-75. https://doi.org/10.1007/s10775-021-09502-2

Güçray, S. S., Çekici, F., & Çolakkadıoğlu, O. (2009). Psiko-eğitim gruplarının yapılandırılması ve genel ilkeleri. *Mersin Üniversitesi Eğitim Fakültesi Dergisi, 5*(1), 134-153.

Güleçoğlu, Ş. N., & Sönmez, Ö. A. (2024). Beliren Yetişkinlik Döneminde Gençlerin Romantik Öz Yeterlik Pozitif Şema İlişkisinin İncelenmesi. *Manisa Celal Bayar Üniversitesi Sosyal Bilimler Dergisi*, *22*(4), 376-392. https://doi.org/10.18026/cbayarsos.1563255

Heinrichs, K., Hermülheim, V., Pilz González, L., & Loerbroks, A. (2021). When in doubt Career indecision, mental wellbeing, and consultation-seeking behaviour-a qualitative interview study among students and counsellors. *International Journal of Environmental Research and Public Health, 18*(23), 1-14. https://doi.org/10.3390/ijerph182312604

Hodges, T. D., & Clifton, D. O. (2004). Strengths-based development in practice. In A. Linley, & S. Joseph (Eds.), *Positive psychology in practice* (pp. 256–268). Wiley. https://doi.org/10.1002/9780470939338.ch16

Işık, E. (2007). Üniversite öğrencilerinin üniversitelerinde verilen kariyer danışmanlığı hizmetlerine ilişkin algı ve beklentileri. *XVI. Ulusal Eğitim Bilimleri Kongresi*, Gaziosmanpaşa Üniversitesi, Tokat.

Kambur, E. (2023). What is happiness?: Career development and reducing barriers. *Alanya Akademik Bakış, 7*(3), 1063-1079.

Kelly, K. R., & Shin, Y. J. (2009). Relation of neuroticism and negative career thoughts and feelings to lack of information. *Journal of Career Assessment, 17*(2), 201-213. https://doi.org/10.1177/1069072708329029

Konstam, V., & Lehmann, I. S. (2011). Emerging adults at work and at play: Leisure, work engagement, and career indecision. *Journal of Career Assessment, 19*(2), 151-164. https://doi.org/10.1177/1069072710385546

Korkut-Owen, F. (2021). Belirsizlik ve kariyer davranışları. *Kariyer Psikolojik Danışmanlığı Dergisi*, *4*(2), 36-60.

Lam, M., & Santos, A. (2018). The impact of a college career intervention program on career decision self-efficacy, career indecision, and decision-making difficulties. *Journal of Career Assessment, 26*(3), 425-444. https://doi.org/10.1177/1069072717714539

Laser, J. (2019). Transition management in individual organizational career planning. *Strategic HR Review, 18*(3), 122-127. https://doi.org/10.1108/SHR-01-2019-0001

Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of counseling psychology, 47*(1), 36-49. https://doi.org/10.1037/0022-0167.47.1.36

Lin, Z., & Jiang, Y. (2023). Character strengths, meaning in life, personal goal, and career adaptability among impoverished college students: A chain-mediating model. *Heliyon, 9*(2), 1-8. https://doi.org/10.1016/j.heliyon.2023.e13232

Linley, P. A., Nielsen, K. M., Gillett, R., & Biswas-Diener, R. (2010). Using signature strengths in pursuit of goals: Effects on goal progress, need satisfaction, and well- being, and implications for coaching psychologists. *International Coaching Psychology Review, 5*(1), 6-15. https://doi.org/10.53841/bpsicpr.2010.5.1.6

Littman-Ovadia, H., Lazar-Butbul, V., & Benjamin, B. A. (2014). Strengths-based career counseling: Overview and initial evaluation. *Journal of Career Assessment, 22*(3), 403-419. https://doi.org/10.1177/1069072713498483

Maree, j. G. (2018). Group career construction counseling: A mixed-methods intervention study with high school students. *The Career Development Quarterly, 67*, 47-61. https://doi.org/10.1002/cdq.12162

Maree, J. G., & Twigge, A. (2016). Career and self-construction of emerging adults: The value of life designing. *Frontiers in Psychology, 6*, 1-12. https://doi.org/10.3389/fpsyg.2015.02041

Matsuo, M. (2022). The role of supervisor support for strengths use in promoting perceived employability and career satisfaction. *Personnel Review, 51*(5), 1587-1603. https://doi.org/10.1108/PR-01-2021-0026

McDonald, K. S. & Hite, L. M. (2023). *Career development: A human resource development perspective* (2nd Ed.). Routledge. https://doi.org/10.4324/9781003246381

Mirshafieea, N. S., & Jafarib, F. (2019). How Strength-based Counseling effects on Self-Compassion and Future Time Perspective in adolescents?. *Journal of Neurodevelopmental Cognition, 2*(1), 12-21. https://doi.org/10.29252/jncog.1.2.12

Moore, H. L., Bakker, A. B., van Mierlo, H., & van Woerkom, M. (2024). Daily strengths use and work performance: A self-determination perspective. *Journal of Occupational and Organizational Psychology, 97*(1), 190-208. https://doi.org/10.1111/joop.12466

Motlova, L. B., Balon, R., Beresin, E. V., Brenner, A. M., Coverdale, J. H., Guerrero, A. P., ... & Roberts, L. W. (2017). Psychoeducation as an opportunity for patients, psychiatrists, and psychiatric educators: why do we ignore it?. *Academic Psychiatry, 41*, 447-451. https://doi.org/10.1007/s40596-017-0728-y

Mutlu, Ş. & Kaya, Z. (2023). The effect of an online decision-making skills psychoeducation programme on university students' decision-making styles: a mixed method study. *e-Kafkas Journal of Educational Research, 10*, 300-319. https://doi.org/10.30900/kafkasegt.1314617

Nazlı, S. (2011). *Kapsamlı psikolojik danışma ve rehberlik programları* (4. Baskı). Ankara: Anı Yayıncılık.

Ng, T. W., & Feldman, D. C. (2009). Personality, social relationships, and vocational indecision among college students: The mediating effects of identity construction. *Career Development International, 14*(4), 309-332. https://doi.org/10.1108/13620430910979826

Niles, S. G. & Harris-Bowlsbey, j. (2022). *Career counseling interventions* (6th Ed.). Pearson.

Osipow, S. H., Carney, C. G., Winer, J. L., Yanico, B. & Koschier, M. J. (1976). *The Career Decision Scale* (3rd ed.). Psychological Assessment Resources.

Owens, R. L., Baugh, L., Barrett-Wallis, R., Hui, N., & McDaniel, M. (2018). Strengths across the lifespan: A qualitative

analysis of developmental trajectories and influential factors. *Translational Issues in Psychological Science*, *4*, 265-276. https://doi.org/10.1037/tps0000164

Özalçın, S. E., & Çolakoğlu, N. (2024). Üniversite Öğrencilerinin Gelecek İle İlgili Kaygılarının Mezuniyet Beklentileri Üzerindeki Etkisinde Gelecek Vizyonlarının Aracı Rolü. *İletişim ve Toplum Araştırmaları Dergisi, 4*(2), 276-305. https://doi.org/10.59534/jcss.1542122

Özkan, S., & Yılmaz, E. (2010). Üniversite öğrencilerinin üniversite yaşamına uyum durumları (Bandırma Örneği). *Fırat Sağlık Hizmetleri Dergisi, 5*(13), 153-171.

Pallant, J. (2020). SPSS survival manual: *A step by step guide to data analysis using IBM SPSS* (7th Ed.). Taylor & Francis. https://doi.org/10.4324/9781003117452

Pambudi, A. T., Mulawarman, M., & Japar, M. (2019). Psychoeducational group with modelling technique to improve career adaptability through career decision self-efficacy. *Journal Bimbingan Konseling, 8*(1), 20-31.

Park, I. J., Rie, J., Kim, H. S., & Park, J. (2020). Effects of a future time perspective-based career intervention on career decisions. *Journal of Career Development, 47*(1), 96-110. https://doi.org/10.1177/0894845318781043

Parola, A., Fusco, L., & Sica, L. S. (2022, December). Satisfaction with life and career indecision in Italian university students: the mediating role of presence of meaning in life. In *Meaning in Life International Conference 2022-Cultivating, Promoting, and Enhancing Meaning in Life Across Cultures and Life Span (MIL 2022)* (pp. 87-100). Atlantis Press. https://doi.org/10.2991/978-94-6463-096-1_7

Parsakia, K., Darbani, S. A., Rostami, M., & Saadati, N. (2022). The effectiveness of strength-based training on students' academic performance. *Journal of Adolescent and Youth Psychological Studies, 3*(3), 194-201. https://doi.org/10.61838/kman.jayps.3.3.16

Parsakia, K., Knechtle, B., Irandoust, K., & Taheri, M. (2024). Strength-based therapy: empowering athletes' self-efficacy and life satisfaction. *Health Nexus, 2*(2), 1-7. https://doi.org/10.61838/kman.hn.2.2.1

Presti, A.L., Pluviano, S. & Briscoe, J.P. (2018), "Are freelancers a breed apart? The role of protean and boundaryless career attitudes in employability and career success. *Human Resource Management Journal, 28*(3), 1-16. https://doi.org/10.1111/1748-8583.12188

Proctor, C., Maltby, J., & Linley, P. A. (2011). Strengths use as a predictor of well-being and health related quality of life. *Journal of happiness studies, 12*, 153-169. https://doi.org/10.1007/s10902-009-9181-2

Proctor, C., Tsukayama, E., Wood, A. M., Maltby, J., Eades, J. F., & Linley, P. A. (2011). Strengths gym: The impact of a character strengths-based intervention on the life satisfaction and well-being of adolescents. *The Journal of Positive Psychology, 6*(5), 377-388. https://doi.org/10.1080/17439760.2011.594079

Redekopp, D. E., & Huston, M. (2020). The broader aims of career development: Mental health, wellbeing and work. In H. J. M. Hermans & F. Meijers (Eds.), *The pursuit of happiness: Between prosperity and adversity* (pp. 108–119). Routledge/Taylor & Francis Group. https://doi.org/10.1201/9781003008835-11

Russo-Netzer, P., Tarrasch, R., & Niemiec, R. M. (2023). A Meaningful Synergy: The Integration of Character Strengths and the Three Types of Meaning in Life. *Social Sciences*, *12*(9), 494. https://doi.org/10.3390/socsci12090494

Salleh, A. M. M., Omar, K., Aburumman, O. J., Mat, N. H. N., & Almhairat, M. A. (2020). The impact of career planning and career satisfaction on employee's turnover intention. *Entrepreneurship and Sustainability Issues, 8*(1), 218-232. https://doi.org/10.9770/jesi.2020.8.1(14)

Samancı, O., & Mazlumoğlu, M. (2023). Decision Making Skill: How to Make a Right Decision?. *Türk Akademik Yayınlar Dergisi*, *7*(2), 668-683. https://doi.org/10.29329/tayjournal.2023.543.14

Sampson, J. P., Peterson, G. W., Lenz, J. G., & Reardon, R. C. (1992). A Cognitive approach to career services: Translating concepts into practice. *The Career Development Quarterly, 41*(1), 67-74. https://doi.org/10.1002/j.2161-0045.1992.tb00360.x

Sandra, E., & Mularsih, H. (2021, August). The role of self-efficacy in career decision making among graduated students from vocational high schools in Jakarta. In *International Conference on Economics, Business, Social, and Humanities (*ICEBSH 2021) (pp. 1064-1068). Atlantis Press. https://doi.org/10.2991/assehr.k.210805.167

Santrock, J. W. (2016). *Life span development* (16th Ed., pp. 402-457). Mc Graw Hill.

Savickas, M. L. (1997). The spirit of career counseling: Fostering self-completion through work. In D. Bloch, & L. Richmond (Eds.), *Connections between spirit and work in career development: New approaches and practical perspectives* (pp. 3-26). Palto Alto, CA: Davies Black Publishing.

Savickas, M. L. (2006). Career construction theory. In J. H. Greenhaus & G. A. Callanan (Eds.), *Encyclopedia of career development volume 1* (2nd Ed., pp. 84-88). California: Sage Publications.

Savickas, M. L. (2013). Career construction theory and practice. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (2nd Ed., pp. 147-183). Wiley.

Savickas, M. L. (2015). *Life-design counseling manual*. Rootstown, OH: Vocopher.

Savickas, M. L. (2019). *Career counseling* (2nd Ed.). American Psychological Association. https://doi.org/10.1037/0000105-000

Savickas, M. L. (2020). Career construction theory and counseling model. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (3th Ed., pp. 165-200). Wiley. https://doi.org/10.1002/9781394258994.ch6

Savickas, M. L. & Savickas, S. (2019). A history of career counseling. In J. A. Athanasou, & R. Van Esbroeck (Eds.), *International handbook of career guidance* (2nd Ed., pp.115–146). Springer. https://doi.org/10.1007/978-3-030-25153-6_2

Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *American Psychologist, 60*(5), 410-421. https://doi.org/10.1037/0003-066X.60.5.410

Shaphiro, S., & Wilk, M. B. J. B. (1965). An analysis of variance test for normality. *Biometrika, 52*(3), 591-611.https://doi.org/10.1093/biomet/52.3-4.591

Sharf, R. S. (2014). *Applying career development theory to counseling* (6th ed.,). Brooks/Cole Cengage Learning.

Shin, Y. J., & Kelly, K. R. (2015). Resilience and decision-making strategies as predictors of career decision difficulties. *The Career Development Quarterly, 63*(4), 291-305. https://doi.org/10.1002/cdq.12029

Shoshani, A., & Slone, M. (2013). Middle school transition from the strengths perspective: Young adolescents' character strengths, subjective well-being, and school adjustment. *Journal of Happiness Studies, 14*, 1163-1181. https://doi.org/10.1007/s10902-012-9374-y

Stavropoulou, E., Pezirkianidis, C., Kounenou, K., & Stalikas, A. (2024). A pılot strength-based group counselllng ınterventıon on career callıng and well-beıng. *Hellenic Journal of Psychology, 21*(1), 98 121.

Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior, 16*, 282-298. https://doi.org/10.1016/0001-8791(80)90056-1

Super, D. E. (1990). A life-span, life-space approach to career development. In D. Brown & L. Brooks (Eds.), *Career choice and development: Applying contemporary theories to practice* (2nd ed., pp. 197-261). Jossey-Bass.

Suranata, K., Atmoko, A., & Hidayah, N. (2017, August). Enhancing Students' Resilience: Comparing The Effect of Cognitive-Behavior And Strengths-Based Counseling. In *2nd International Conference on Innovative Research Across Disciplines* (ICIRAD 2017) (pp. 102-108). Atlantis Press. https://doi.org/10.2991/icirad-17.2017.20

Şeker, G. (2020). Well-Being and career anxiety as predictors of career indecision. *Pamukkale University Journal of Education, 5*(1), 262-275.

Thrift, M. M., Ulloa-Heath J., Reardon R. C., & Peterson, G. W. (2012) Career interventions and the career thoughts of Pacific Island college students. *Journal of Counseling Development, 90*, 169-176. https://doi.org/10.1111/j.1556-6676.2012.00022.x

Toporek, R.L. and Cohen, R.F. (2017), Strength-based narrative résumé counseling: constructing positive career ıdentities from difficult employment histories. *The Career Development Quarterly, 65*, 222-236. https://doi.org/10.1002/cdq.12094

Tsai, C. L., Chaichanasakul, A., Zhao, R., Flores, L. Y., and Lopez, S. (2014). Development and validation of the Strengths Self-Efficacy Scale (SSES). *Journal of Career Assessment, 22*, 221-232. https://doi.org/10.1177/1069072713493761

Uçar, S. (2020). Genç yetişkinlik dönemi uyum sorunları. İçinde Ş. Baytemur (Ed.), *Yaşam dönemleri uyum sorunları* (2.Basım, ss.251-276). Nobel.

Van Woerkom, M., Oerlemans, W., & Bakker, A. B. (2016). Strengths use and work engagement: A weekly diary study. *European Journal of Work and Organizational Psychology, 25*(3), 384-397. https://doi.org/10.1080/1359432X.2015.1089862

Viola, M. M., Musso, P., Ingoglia, S., Coco, A. L., & Inguglia, C. (2017). Relationships between career indecision, search for work self-efficacy, and psychological well-being in Italian never-employed young adults. *Europe's journal of psychology, 13*(2), 231. https://doi.org/10.5964/ejop.v13i2.1277

Wang, F., & Ding, H. (2023). Strengths-based leadership and employee strengths use: The roles of strengths self-efficacy and job insecurity. *Revista de Psicología del Trabajo y de las Organizaciones, 39*(1), 47-54. https://doi.org/10.5093/jwop2023a6

Weber, M., Ruch, W., Littman-Ovadia, H., Lavy, S., & Gai, O. (2013). Relationships among higher order strengths factors, subjective well-being, and general self-efficacy-The case of Israeli adolescents. *Personality and Individual Differences, 55*(3), 322-327. https://doi.org/10.1016/j.paid.2013.03.006

Wilkins, B., Boman, P., & Mergler, A. (2015). Positive psychological strengths and school engagement in primary school children. *Cogent Education, 2*(1), 1-11. https://doi.org/10.1080/2331186X.2015.1095680

Xie, F., Tang, M., Wu, S., & Wang, Y. (2025). " Happiness Tree": A Thematic Art-Based Group Counseling Method for Enhancing Positive Psychological Traits in Chinese College Students. *Frontiers in Psychology*, *16*, 1651008. https://doi.org/10.3389/fpsyg.2025.1651008

Yanita, M., & Syah, N. (2023). The influence of self efficiency and internal locus of control on career planning of students department of beauty and cosmetology Padang State University. The Indonesian *Journal of Computer Science, 12*(3), 1148-1156. https://doi.org/10.33022/ijcs.v12i3.3220

Yuen, M., Zhang, J., Man, P. K., Mak, J., Chung, Y. B., Lee, Q. A., & Chan, R. T. (2022). A strengths based longitudinal career intervention for junior secondary school students with special educational needs: a mixed-method evaluation. *Applied Research in Quality of Life, 17*(4), 2229-2250. https://doi.org/10.1007/s11482-021-10028-6

Yusupu, R. (2015). *Üniversite öğrencilerinde kariyer kararları ile mükemmeliyetçilik, öğrenme motivasyonu ve akademik başarı arasındaki ilişkiler.* (Yayımlanmamış Yüksek Lisans Tezi). Dokuz Eylül Üniversitesi.

Zhang, H., Liu, L., & Li, X. (2025). Happiness and Sacredness: A Qualitative Study on Doctoral Students' Well-Being and Academic Career Choice. *Perspectives in Psychiatric Care*, *2025*(1), 2937798. https://doi.org/10.1155/ppc/2937798

Zhou, M., & Xu, Y. (2013). University students' career choice and emotional well-being. *Journal of Educational and Social Research, 3*(7), 243-248. https://doi.org/10.5901/jesr.2013.v3n7p243