

The Mediating Role of Cognitive Flexibility in the Relationship between Social Anxiety and General Self-Efficacy

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Abstract

The purpose of this study is to investigate the mediating role of cognitive flexibility in the relationship between social anxiety and general self-efficacy in university students. In addition, it was also investigated whether cognitive flexibility, social anxiety and general self efficacy differ according to gender. The research was designed in the survey model using the quantitative research method. The sample of the study consisted of 499 undergraduate university students enrolled at different universities in Turkey in the academic year of 2021-2022. While 68.3% (n=341) of the participants were female, 31.6% (n= 158) were male. The average age of the research group is 22.48. The data were collected using the Cognitive Flexibility Scale, the General Self-Efficacy Scale, and the Liebowitz Social Anxiety Scale. Pearson correlation analysis was performed to examine whether there was a significant relationship between the variables used in the study. T-test was used to determine whether social anxiety, cognitive flexibility and general self-efficacy differ in terms of gender. Regression-based bootstrapping method was used to determine the mediator role of cognitive flexibility in the effect of general self-efficacy on social anxiety. The social anxiety levels of the female participants were found to be higher than those of the male participants. According to the results of Pearson Correlation Analysis, it was determined that there is a negative and significant relationship between social anxiety and cognitive flexibility. In addition, according to the results of the Pearson Correlation Analysis, it was determined that there was a negative and significant relationship between social anxiety and general self-efficacy. The mediation analysis results demonstrated the mediating role of cognitive flexibility in the effect of general self-efficacy on social anxiety. The results of this study and those of other studies in the relevant literature have suggested the effectiveness of cognitive flexibility and general self-efficacy on the development and progression of social anxiety. Thus, mental health experts working in this field may be recommended to focus on these variables while studying social anxiety. The results of the study were discussed and interpreted in light of the relevant literature.

Keywords: Cognitive Flexibility, Social anxiety, General self-efficacy, University students



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INTRODUCTION

Social anxiety disorder is a mental disorder that is prevalently encountered worldwide (Brunello et al., 2000; Gültekin and Dereboy, 2011). APA (2013) defined social anxiety as the feeling of notable fear or worry in social contexts in which the individual performs a behavior in front of other people and/or is being observed by other people. The main pattern among individuals with social anxiety is the individual's concern about being evaluated negatively and behaving in a way that could lead them to be negatively evaluated (Schultz and Heimberg, 2008). Individuals with high social anxiety levels usually avoid interpersonal encounters or tolerate such encounters with intense distress. According to Strine et al. (2008), even though they do not completely meet diagnostic criteria, individuals with high level anxiety symptoms are in the high-risk group in terms of developing both mental and physical disorders. Due to this risk in question, it is highly important to prevent and treat anxiety disorders. While there are various intervention options in cases of social anxiety disorder, Cognitive-Behavioral Therapy (CBT) interventions are prominent in terms of popularity and effectiveness (Gould, Buckminster, Pollack, Otto, and Yap, 1997; Rodebaugh, Holaway, and Heimberg, 2004). However, despite the current intervention options, it is usually not possible to provide individuals with sufficient and comprehensive assistance in the field of mental health due to some limitations. This situation makes preventive studies that can be applied before the emergence of mental problems important (Min, U. Lee, and Lee, 2013). In this context, in addition to studies conducted with individuals who meet diagnostic criteria, studies to be carried out with individuals that display various symptoms of social anxiety have importance in terms of contributing to preventive intervention.

It is a controversial issue in the literature whether gender has a statistically significant effect on social anxiety levels. In some studies in the literature, it has been found that female social anxiety mean scores are higher than male (Compton, March, and Nelson, 2000; Tok, 2019). A study on the prevalence of social anxiety disorder in Italy was found that social anxiety disorder was more common in female (%4) than in male (%1.8) (Faravelli et al., 2000). In the study of Gültekin and Dereboy (2011) in Turkey, it was found that female have social anxiety disorder 1.7 times more than male. On the other hand, there are studies in the literature that have provided results indicating the exact opposite case (Palancı and Özbay, 2003; Sübaşı, 2010). Some studies on this subject have concluded that there is no significant relationship between social anxiety and gender (Al-Ruwaili, Turki and Amadan, 2018; Çelik and Kısa, 2012).

General self-efficacy is considered significant determinant of anxiety (Comunian, 1989). According to Bandura (1977), perceived general self-efficacy reflects the beliefs of individuals regarding the controllability of certain tasks and their agency in controlling certain tasks. It also refers to the positive belief of the person regarding their capacity to cope with the obstacles they encounter while performing a behavior. According to Wiseman and Sharabany (2007), perceived self-efficacy defines the belief of the individual in their resources and skills in different areas, including social areas. The confidence of the person in themselves regarding any performance is influenced by their general self-efficacy (Lent and Hackett, 1987). Thus, a strong sense of general self-efficacy increases the chances of individuals to perform any task (Tahmassian and Moghadam, 2011). Individuals with low general self-efficacy levels are likely to be less successful in performing in social settings.

In parallel with this approach, various studies in the literature have shown a relationship between low general self-efficacy and social anxiety disorder in both children and adults (Goldin et al., 2012; Rudy, Davis and Matthews, 2012). In a study by Matsuo and Arai (1998), low self-efficacy was found to be associated with high social anxiety. In a study conducted on an adolescent sample, it was found that social self-efficacy was associated with social anxiety and played a major role in anxiety disorders (Smári, G. Pétursdóttir, V. Þorsteinsdóttir, 2001). Hannesdottir and Ollendick (2007) found that overall social self-efficacy level predicted social anxiety level without being affected by interpersonal relationship. In addition, studies have found that low self-efficacy was associated with the severity of social anxiety and related impairment (Thomasson and Psouni, 2010).

In the relevant literature, studies on general self-efficacy have reported some variables that are positively associated with general self-efficacy as cognitive flexibility (Akçay Özcan and Kıran Esen, 2016), emotional regulation skills and resilience (Ateş and Sağar, 2021), optimism (Kılınc, Polatcan, Atmaca, and

Koşar, 2021), and self-esteem (Luszczynska, Scholz, and Schwarzer, 2005), while they have reported some negatively associated variables as somatization (Doğan Yatar, 2020) and neuroticism (Grevenstein, Bluemke, and Kroeninger Jungaberle, 2016). As seen in studies in the relevant literature, general self-efficacy has a significant role in the personal development of the individual. It is one of the basic characteristics that are necessary for the individual to proceed in the direction they desire and reach their goals. According to Toprakçı (2017), the most important key to success in the education of individuals is their goals.

It is seen in the literature that cognitive flexibility has been discussed as a key explanatory variable in the assessment of the psychological foundations of anxiety (Fazeli, Ehteshamzadeh, and Hashemi, 2015; Lee and Orsillo, 2014). Cognitive flexibility refers to the ability of the individual to avoid focusing on a single way of solving a problem and be aware of different ways of solution. This is why individuals with high cognitive flexibility levels also have a high capacity to adapt to unfamiliar situations and change their cognitions (Martin and Anderson, 1998). The cognitive model focuses on the etiology of social anxiety and argues that the development of social anxiety is influenced by the cognitive distortion levels of individuals, their dysfunctional beliefs, and their negative automatic thoughts (Smits, Rosenfield, McDonald, and Telch, 2006). According to this model, individuals with high social anxiety levels have dysfunctional thoughts that other people evaluate their behaviors. These thoughts trigger their automatic thoughts and affect the performance displayed by the individual in social settings negatively (Stopa and Clark, 1993). Based on this model, it was stated that cognitive rigidity is a risk factor for the development of social anxiety as individuals with cognitive rigidity, i.e., low cognitive flexibility have a weaker capability to notice alternative thoughts and change their thoughts (Dağ and Gülüm, 2013).

There are studies in the literature supporting that cognitive flexibility and general self-efficacy are related (Çelikkaleli, 2014; Kim ve Omizo, 2005; Shimogori, 2013). These studies emphasize the relationship between cognitive flexibility and general self-efficacy. There are studies in which CBT-based interventions focus on self-efficacy perception in the treatment of social anxiety. One of these studies concluded that an increase in general self-efficacy perception reduces the severity of social anxiety (Goldin et al., 2012). Cognitive flexibility can be thought that play a mediating role in this effect of general self-efficacy on social anxiety. Because cognitive flexibility is the ability to be mentally flexible. For this reason, it can be thought that it can be a facilitator in the change of one's thoughts.

In recent years, there has been an increase in the number of studies in the relevant literature that have been conducted on cognitive flexibility. Such studies have reported some variables that are negatively associated with cognitive flexibility as stress (Altunkol, 2011), anxiety (Han, Park, Kee, Na, Na, and Zaichowsky, 2011), psychological symptoms (Al-Jabari, 2012), and depression (Dağ and Gülüm, 2015), whereas some variables that are positively associated with flexibility have been reported as happiness (Asıcı, 2015), effective problem-solving (Buğa, Özkamalı, Altunkol, and Çekiç, 2018), self-esteem (Koesten, Schrod, and Ford, 2009), and life satisfaction (Yelpaze and Yakar, 2019). Considering this information in the literature, it may be argued that having a high level of cognitive flexibility affects the individual's life positively.

Based on the information in the literature, it is thought that general self-efficacy may be effective on social anxiety, and cognitive flexibility may play a mediating role in this relationship. Therefore, interventions targeting the cognitive flexibility and general self-efficacy of individuals may be expected to play a significant role in the alleviation of these issues. Accordingly, in this study, it was aimed to investigate the relationships between social anxiety, cognitive flexibility, and general self-efficacy. Although there are studies in the literature investigating the relationships between these variables, it is seen that there has been no study particularly focusing on the mediating role of cognitive flexibility in the relationship between general self-efficacy and social anxiety. Therefore, to provide guidance for both intervention and prevention efforts, this study investigated the mediating role of cognitive flexibility in the relationship between social anxiety and general self-efficacy and interpreted the relationships between these variables. In this study, answers were sought to the following research questions:

1. Do social anxiety, cognitive flexibility, and general self-efficacy levels differ based on gender?
2. Is there a significant relationship among general self-efficacy, cognitive flexibility, and social anxiety in university students?

3. Does cognitive flexibility have a mediating role in the effect of general self-efficacy on social anxiety in university students?

METHOD

In this study, it was aimed to investigate the relationships between social anxiety, cognitive flexibility, and general self-efficacy in university students. To investigate these relationships, the correlational survey method was used. According to Karasar (2016), the correlational survey method aims to determine whether there is a relationship between two or more variables and the degree of such a relationship if there is any.

1. Procedure

Before starting to collect data, approval was obtained from the Dicle University Social Sciences and Humanities Ethics Committee (25/03/2022 and numbered 256356). The study was conducted between 15/03/2022 and 15/05/2022. Before the implementation of the study, the participants were informed about the content of the study on the "Informed Consent Form", and their consent was obtained.

2. Sample

The sample of the study included 499 university students between the ages of 18 and 28. While 341 (68.3%) of the participants were female, 158 (31.6%) were male. The descriptive statistics of the participants are presented in Table 1.

Table 1. Distribution of participants regarding demographic variables

Variable	Category	N	%
Gender	Female	341	68.3
	Male	158	31.6
Grade level	1. grade	59	11.8
	2. grade	106	21.2
	3. grade	124	24.8
	4. grade	210	42.0
	Total	499	100.00

The minimum sample size for the study was calculated as 111 by using the formula of "108 + m" where "m" is the number of factors (in the present study m = 3) as suggested by Green (1991). The mean age of the participants was 22.48 (SD = 2.72). The participants were reached using the convenience sampling method based on the ease-proximity and voluntary participation principles. The data collection process was carried out online via Google forms, and it took each participant about 15-20 minutes to respond to the data collection instruments. The participants were given the scales in different orders to prevent an order effect.

3. Data Collection Instruments

3.1. Demographic Information Form: The form that was developed by the researchers included questions that were designed to collect information on some characteristics of the participants such as age, gender, department of study, class year, and university of enrollment.

3.2. Cognitive Flexibility Scale (CFS): CFS, which was developed by Martin and Rubin (1995) to determine the cognitive flexibility levels of individuals and adapted to Turkish by Altunkol (2011) consists of a single dimension and 12 items. It is a 6-point Likert-type scale with response options varying from 6 "absolutely disagree" to 1 "absolutely agree". The minimum and maximum possible scores on the scale are 12 and 72. Higher scores indicate higher levels of cognitive flexibility. In the adaptation study conducted by Altunkol (2011), the Cronbach's alpha internal consistency coefficient of the scale was reported as .81, while its test-retest reliability coefficient was reported as .73. In this study, the internal consistency coefficient of the scale was calculated as .84. Martin and Rubin (1995) calculated the total score according to a three-dimensional structure. Altunkol's (2011) adaptation study also revealed a one-dimensional structure. In criterion-related validity analysis, significant relationships were observed between Dysfunctional Attitude Scale and Cognitive Flexibility Scale ($r = -.23$), Cognitive Flexibility Scale ($r = .54$) and Irrational Beliefs Test ($r = -.14$) (Bilgin, 2009).

3.3. General Self-Efficacy Scale (GSE): GSE was developed by [Schwarzer and Jerusalem \(1979\)](#) to measure general self-efficacy. The scale was revised in 1981 as a 10-item scale. It was adapted to Turkish by [Aypay \(2010\)](#). The 4-point Likert-type scale measures the belief of the individual in their efficacy in coping with new and difficult tasks in different environments. All items on the scale are positively worded. The internal consistency coefficient of the single-factor scale was reported as .86, while its test-retest reliability coefficient was reported as .80. In this study, the internal consistency coefficient of the scale was found as .88. A study by [Rimm and Jerusalem \(1999\)](#) with 670 participants concluded that there was only one factor, which explained 46% of the variability. [Scholz, Dona, Sud, and Schwarzer \(2002\)](#) concluded that there is only one factor in their factor analysis to measure validity.

3.4. Liebowitz Social Anxiety Scale (LSAS): The scale, which was developed by [Liebowitz \(1987\)](#), was adapted to Turkish by [Soykan, Özgüven, and Gençöz \(2013\)](#). It consists of 48 items of which 24 measure anxiety, and the other 24 measure avoidance. The total score is calculated from the sum of the scores obtained from the subscales. The total score can vary between 0 and 144. Low scores indicate that participants have low levels of social anxiety ([Liebowitz, 1987](#)). [Soykan et al. \(2013\)](#) found the internal consistency coefficient of the anxiety dimension of the scale as .96 and that of the avoidance dimension of the scale as .95, while they determined the test-retest reliability coefficient of the scale as .97. In this study, the internal consistency coefficients of the the social anxiety was found as .95.

4. Data Analysis

In this study, it was aimed to investigate the relationships between social anxiety, cognitive flexibility, and general self-efficacy in university students. To investigate these relationships, the correlational survey method was used. According to [Karasar \(2016\)](#), the correlational survey method aims to determine whether there is a relationship between two or more variables and the degree of such a relationship if there is any.

The collected data were analyzed using the IBM SPSS 22 Statistics Program. Mean and standard deviation values were utilized in the analyses of the descriptive data. Skewness and kurtosis values were used to test normal distribution assumptions. According to [Büyüköztürk, Köklü, and Çokluk \(2011\)](#), skewness and kurtosis values in the range from -1 to +1 indicate that the values have a near-normal distribution. The skewness and kurtosis values in this study were found respectively as -.422 and .051 for cognitive flexibility, -.401 and .119 for general self-efficacy, .414 and -.218 for social anxiety. Therefore, the data were normally distributed.

The Pearson's correlation analysis method was used to analyze the relationships between the independent, dependent, and mediator variables of the study. To investigate the mediating role of cognitive flexibility in terms of general self-efficacy, which was found to be a predictor of social anxiety, parallel multiple mediation analyses were conducted using [Hayes \(2013\)](#) PROCESS macro version 3.4. To test the significance of indirect effects, the bias-corrected bootstrap method was used by selecting Model 4, 5000 elements and the confidence interval as 95%.

FINDINGS

The mean, standard deviation, skewness, and kurtosis values of the scores of the participants on the Cognitive Flexibility Scale, the General Self-Efficacy Scale, and the Liebowitz Social Anxiety Scale were analyzed. The results of these analyses are presented in Table 2.

Table 2. Descriptive statistics and skewness-kurtosis values on cognitive flexibility, general self-efficacy, social anxiety

Variables	N	M	SD	Skewness	Kurtosis
Cognitive Flexibility	499	4.49	.72	-.422	.051
General Self-Efficacy	499	3.02	.54	-.401	.119
Social Anxiety	499	1.13	.55	.414	-.218

An independent-samples t-test was carried out to determine whether the cognitive flexibility, general self-efficacy, and social anxiety scores of the participants varied significantly based on the variable of gender. The results of the test are given in Table 3.

Table 3. Results of the independent-samples t-test on differences in scores based on the variable of gender

Variables	Male			Female			t	p
	N	M	SD	N	M	SD		
Cognitive Flexibility	158	4.50	.79	341	4.49	.68	.188	.851
General Self-Efficacy	158	3.00	.58	341	3.04	.52	.769	.442
Social Anxiety	158	1.05	.52	341	1.17	.56	-2.329	.020*

*p<.05, **p<.01

As seen in Table 3, the mean LSAS score of the male participants (M = 1.05, SD = .52) was significantly lower than that of the female participants (M = 1.17, SD = .56) $t(497) = -2.32, p<.05$.

A Pearson product-moment correlation analysis was conducted to compare the cognitive flexibility, general self-efficacy, social anxiety scores of the participants and identify relationships between these scores. The correlation coefficients that were obtained as a result of this analysis are shown in Table 4.

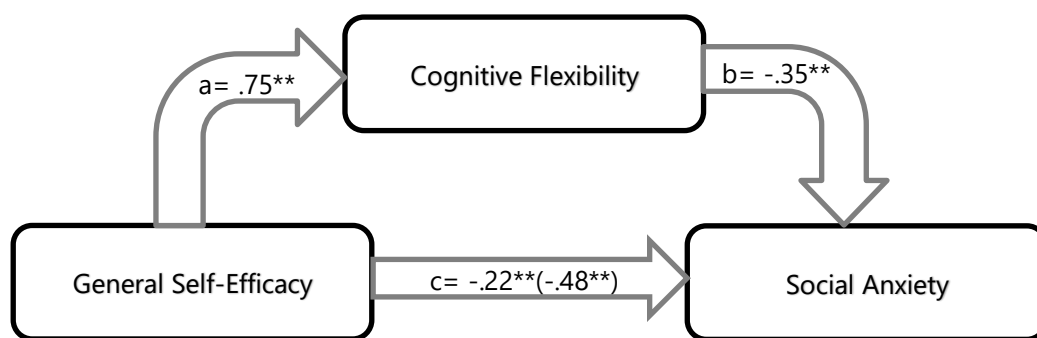
Table 4. Correlations between the variables and descriptive statistics

Variables	1	2	3
1. Cognitive Flexibility	1	.569**	-.581**
2. General Self-Efficacy		1	-.475**
3. Social Anxiety			1

N=599, **p<.01

As seen in Table 4, which shows the correlation coefficients between LSAS and the variables of cognitive flexibility and general self-efficacy, there was a negative statistically significant relationship between cognitive flexibility and social anxiety ($R = -.581, p<.01$). Accordingly, the participants with high cognitive flexibility scores would have lower social anxiety scores. Furthermore, a negative statistically significant relationship was also identified between general self-efficacy and social anxiety scores ($R = -.475, p<.01$). Accordingly, the participants with high general self-efficacy scores would have lower social anxiety scores.

The mediation model that was created in the study was analyzed using the bootstrap method with the SPSS Macro application. Model 4 and 5000 elements were used in the analyses that were based on a 95% confidence interval. The results of the model tested regarding the mediating role of cognitive flexibility in the relationship between general self-efficacy and social anxiety are presented in Figure 1.



Note: $R^2 = .368, **p<.01$

Figure 1. Mediating Role of Cognitive Flexibility in the Relationship between General Self-Efficacy and Social Anxiety

The mediation analysis whose schema is shown in Figure 1 revealed that the path between general self-efficacy and cognitive flexibility (a) was significant ($\beta = .75, SE = .05, t = 15.41, p<.01$). The path between cognitive flexibility and social anxiety (b) was also significant ($\beta = -.35, SE = .03, t = -10.57, p<.01$). Moreover, the direct path between general self-efficacy and social anxiety (c) was found to be significant ($\beta = -.22, SE = .04, t = -4.93, p<.01$). As a result of the bootstrap analysis, it was determined that the indirect path between general-self efficacy and social anxiety was significant ($\beta = -.27, SE = .04, CI = -.342 \text{ to } -.197$). Consequently, cognitive flexibility had a mediating effect in the relationship between general self-

efficacy and social anxiety. Based on the model, the examined variables explained 36.8% of the total variance in social anxiety, and the model that was established was significant ($R^2 = .368$, $F_{(1-497)} = 237.53$, $P < .01$).

Table 5. Evaluation of the mediating role of cognitive flexibility in the relationship between social anxiety and general self-efficacy with Mediator Variable Analysis

Model pathways	Estimated	95% CI	
		Lower bounds	Upper bounds
Direct effects			
General Self-Efficacy - Social Anxiety	-.22**	-.308	-.132
General Self-Efficacy - Cognitive Flexibility	.75**	.663	.856
Cognitive Flexibility - Social Anxiety	-.35**	-.419	-.287
Indirect effects			
General Self-Efficacy - Cognitive Flexibility - Social Anxiety	-.27	-.342	-.197

Note. ** = $p < .01$

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

In this study, the relationships between social anxiety in university students and cognitive flexibility and general self-efficacy were investigated. The results of the analysis that was conducted to determine whether the social anxiety, cognitive flexibility, and general self-efficacy scores of the participants differed significantly based on their gender revealed that the social anxiety levels of the male participants were significantly lower than those of the female participants. In the study, a negative statistically significant relationship was found between social anxiety and cognitive flexibility. Moreover, a negative significant relationship was found between social anxiety and general self-efficacy. The results of the mediation analysis showed that cognitive flexibility had a mediating role in the relationship between general self-efficacy and social anxiety.

In the literature, whether gender leads to a statistically significant difference in social anxiety levels is a debated topic. According to our results, the mean social anxiety score of the male participants was significantly lower than that of the female participants. This has been a recurring result in previous studies (Compton, March, and Nelson, 2000; Tok, 2019). In a study that was conducted on the epidemiology of social anxiety disorder in Italy, while the prevalence of social anxiety disorder in men was found as 1.8%, this prevalence was 4% in women (Faravelli et al., 2000). In their study in Turkey, Gültekin and Dereboy (2011) determined a 1.7 times higher rate of social anxiety disorder in women compared to men. On the other hand, there are studies in the literature that have provided results indicating the exact opposite case (Mazalin and Moore, 2004; Palancı and Özbay, 2003; Sübaşı, 2010). Some other studies have concluded that there is no significant relationship between social anxiety and gender (Al-Ruwaili, Turki, and Alardan, 2018; Baltacı, 2010; Çelik and Kısa, 2012). Leary and Kowalsk (1995), who investigated contradictions in studies that reached different findings regarding the effects of gender on social anxiety levels, concluded that it was not surprising to see conflicting results in different studies. The researchers argued that the social anxiety experienced by women and men is influenced by the social environment in which they live and the feedback they receive from this environment. The expectations of the society about how men and women should behave are defined as gender roles. The roles that gender roles attribute to men and women may differ according to society and culture. (Basow, 1992). In Turkish society, it is a widely accepted practice to raise girls as passive and shy individuals and boys as active and sociable individuals. This mechanism may be explained by the possibility that women who have been brought up as passive and shy and had these characteristics of theirs reinforced experience more anxiety in comparison to men when they participate in social environments in which they are expected to perform.

The results of the analysis that was conducted in this study to identify the relationship between general self-efficacy and social anxiety revealed a negative and statistically significant correlation. In addition to the result of this study, other studies examining the relationship between general self-efficacy and social anxiety have supported the existence of a negative significant relationship between these two variables (Al-Ruwaili et al. 2018; Aune, Juul, Beidel, Nordahl, and Dvorak, 2021; Lancu, Bodner, and Ben-Zion, 2015; Muris, 2002; Park and Bae, 2015). In their study that was also conducted in Turkey, Çelik and

Kısa (2020) reported parallel results to those in our study. This result showed that as the general self-efficacy of the individual decreases, their social anxiety will increase. Leary and Atherton (1986) claimed that if the person has more positive beliefs and expectations about their capacity to cope with a social situation, they will experience proportionally less social anxiety about the situation. If the person believes that they can control the social situation they encounter well, they are expected to experience proportionally less anxiety in terms of participating in that situation. This is because individuals with low general self-efficacy levels are unsuccessful and unwilling in coping with situations that they encounter in social settings (Thomasson and Psouni, 2019). Therefore, low general self-efficacy may lead to the exacerbation of negative experiences originating from social anxiety by making it more difficult to cope with social situations (Lancu et al., 2015). In this context, it is believed that the negative thoughts and beliefs of individuals regarding the behaviors they could perform in social environments were effective in this result.

A negative significant relationship was found between cognitive flexibility and social anxiety in this study. This result showed that as the cognitive flexibility level of an individual decreased, their social anxiety would increase. The studies conducted by Dağ and Gülüm (2013) and Çiftçi (2019) provided similar results. Moreover, Arlt et al. (2016), who identified a relationship between cognitive flexibility and social anxiety, proposed the idea that cognitive flexibility may be an underlying mechanism in psychological problems and constitute the foundation of symptoms that emerge along with social anxiety. According to Clark and Wells (1995), individuals with high social anxiety have fears about performing in social settings and expectations of failure. These individuals may also think that they would not be able to cope with any situation they would encounter in social settings. These dysfunctional thoughts lead the individual to perceive their environment as dangerous, and this situation triggers their social anxiety. It is considered that the social anxiety levels of individuals who have cognitive rigidity, meaning low cognitive flexibility, may increase as they have a lower capability to cope with these dysfunctional thoughts due to their weaker ability to notice alternative thoughts and change their thoughts by analyzing them.

Considering the results of this study as a whole, it is seen that social anxiety, cognitive flexibility, and general self-efficacy were interrelated. In the mediation analysis that was conducted to understand the structure of this relationship better, it was determined that cognitive flexibility mediated in the effect of general self-efficacy on social anxiety. According to the model that was established in this study, general self-efficacy was effective on social anxiety, but a part of this effect occurred via cognitive flexibility, and this effect was strengthened through the mediation of cognitive flexibility. Likewise, in a study that was carried out in China, cognitive flexibility was found to mediate social anxiety (Liu, Qian, Liang, Xie, and Wang, 2022). Similarly, in another study in China, it was determined that cognitive flexibility mediated anxiety and increased its severity (Yu, Yu, and Lin, 2020). Considering that low general self-efficacy affects the individual negatively in terms of coping with situations in social environments (Thomasson and Psouni, 2019) and increases the degree of negative experiences (Lancu et al., 2015), it may be stated that the cognitive rigidity of the individual prevents the questioning and alteration of these thoughts of low general self-efficacy, and thus, it mediates the increase social anxiety.

The results of this study and those of other studies in the relevant literature have suggested the effectiveness of cognitive flexibility and general self-efficacy on the development and progression of social anxiety. Therefore, in cognitive-behavioral therapies, which are prevalently used in the treatment of anxiety disorders, focusing on the improvement of cognitive flexibility and general self-efficacy may help practitioners achieve better outcomes. The “cognitive restructuring” technique that is used in cognitive-behavioral therapies affects the existing cognitions of the person and allows the person to reevaluate these cognitions (Chorpita, 2007). Intervening with the negative cognitions of the person regarding their general self-efficacy and helping them reduce these cognitions may lower the person’s social anxiety by increasing their belief in their general self-efficacy. Additionally, because focusing on general self-efficacy through cognitive restructuring will allow the person to notice their existing thoughts and alternative thoughts, it may also indirectly help raise their cognitive flexibility. Thus, mental health experts working in this field may be recommended to focus on these variables while studying social anxiety. From a preventive mental health perspective, it is believed that increasing the number of activities aiming to improve cognitive flexibility and general self-efficacy within the scope of

psychological counseling and guidance practices at universities will be beneficial, and it will lower the probability of the development of social anxiety disorder among university students.

This study, which aimed to shed light on the relationships between cognitive flexibility, general self-efficacy, and social anxiety, had some limitations. The fact that the sample of the study only included university students makes the generalization of the results difficult. Future studies on this topic may take this limitation into account and expand their samples to include other developmental stages and age groups such as early adulthood and middle adulthood. Furthermore, the fact that individuals who met diagnostic criteria were not included prevented the comparison of those meeting diagnostic criteria to those not meeting such criteria. A further study to be carried out by also including individuals meeting diagnostic criteria may make the results of this study easier to understand. From the point of view of preventive mental health, it is thought that it would be beneficial to organize activities, seminars and trainings aimed at improving cognitive flexibility and general self-efficacy in psychological counseling and guidance centers in universities.

Sosyal Kaygı ile Genel Öz Yeterlik Arasındaki İlişkide Bilişsel Esnekliğin Aracı Rolü

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Özet

Bu çalışmanın temel amacı üniversite öğrencilerinde sosyal kaygı ile genel öz yeterlik arasındaki ilişkide bilişsel esnekliğin aracı rolünün incelenmesidir. Ayrıca sosyal kaygı, bilişsel esneklik ve genel öz yeterliğin cinsiyete göre farklılaşıp farklılaşmadığı da incelenmiştir. Araştırma, nicel araştırma yönteminin kullanıldığı tarama modelinde tasarlanmıştır. Araştırmanın örneklem grubunu 2021-2022 eğitim-öğretim yılında Türkiye’de farklı üniversitelerde lisans eğitimine devam eden 499 üniversite öğrencisi oluşturmuştur. Katılımcıların %68.3’ü (n=341) kadın, %31.6’sı (n=158) erkeklerden oluşmaktadır. Araştırmanın örneklem grubunun yaş ortalaması 22.48’dir. Araştırmada veri toplama araçları olarak Bilişsel Esneklik Ölçeği, Genel Öz Yeterlik Ölçeği ve Liebowitz Sosyal Kaygı Ölçeği kullanılmıştır. Değişkenler arasında anlamlı bir ilişkinin olup olmadığını belirlemek amacıyla Pearson korelasyon analizi kullanılmıştır. Sosyal kaygı, bilişsel esneklik ve genel öz yeterliğin cinsiyet açısından bir farklılık gösterip göstermediği ise t-testi ile incelenmiştir. Genel öz yeterliğin sosyal kaygı üzerindeki etkisinde bilişsel esnekliğin aracı rolünü belirlemek için regresyon tabanlı bootstrapping yöntemi kullanılmıştır. Araştırmada ulaşılan bulgulara göre, kadınların sosyal kaygı düzeylerinin erkeklere göre daha yüksek olduğu tespit edilmiştir. Pearson Korelasyon Analizi sonuçlarına göre sosyal kaygı ile bilişsel esneklik arasında negatif yönde ve anlamlı bir ilişkinin olduğu belirlenmiştir. Yine korelasyon analizi sonuçlarına göre sosyal kaygı ile genel öz yeterlik arasında negatif yönde ve anlamlı bir ilişkinin olduğu bulunmuştur. Bunun yanı sıra yapılan aracılık analizinde genel öz yeterliğin sosyal kaygı üzerindeki etkisinde bilişsel esnekliğin aracı rolünün olduğu görülmüştür. Mevcut çalışma bilişsel esneklik ve genel öz yeterliğin, sosyal kaygının oluşumunda ve seyrinde etkili olabileceğine işaret etmektedir. Araştırma sonucuna göre alanda çalışan ruh sağlığı uzmanlarına sosyal kaygı ile çalışırken bu değişkenler üzerinde durmaları tavsiye edilebilir. Araştırma sonucunda elde edilen bulgular ilgili alanyazın çerçevesinde tartışılmış ve yorumlanmıştır.

Anahtar Kelimeler: Bilişsel esneklik, Sosyal kaygı, Genel öz yeterlik, Üniversite öğrencileri



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Önerilen Atıf

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Genişletilmiş Özet

Problem: Sosyal kaygı bozukluğu, ülkemizde ve dünyada yaygın olarak görülen bir ruh sağlığı sorunudur (Brunello vd., 2000; Gültekin ve Dereboy, 2011). APA (2013) sosyal kaygıyı, bireyin diğer insanlar önünde bir davranış gerçekleştirme ve/veya başkaları tarafından izlenme gibi sosyal durumlarda, belirgin korku ya da kaygı hissetmesi olarak tanımlamıştır. Sosyal kaygısı olan bireylerdeki ortak örüntü, kişinin olumsuz olarak değerlendirileceği yönündeki endişesi ve kişinin olumsuz değerlendirilmeye yol açacak şekilde davranabileceği yönündeki kaygısıdır (Schultz ve Heimberg, 2008). Strine vd. (2008) tarafından yapılan çalışmaya göre, tanı kriterlerini tam olarak karşılamasa bile, yüksek düzeyde kaygı belirtileri gösteren bireyler hem zihinsel hem de fiziksel rahatsızlıklara yakalanma konusunda yüksek risk grubundadırlar.

Kaygının psikolojik temelleri ele alınırken alanyazında bilişsel esnekliğin önemli bir açıklayıcı olarak öne çıktığı görülmektedir (Fazeli, Ehteshamzadeh ve Hashemi, 2015; Lee ve Orsillo, 2014). Bilişsel esneklik, bireyin bir problemin tek bir çözüm yoluna odaklanmadan farklı çözüm yollarının da farkında olabilmesi olarak tanımlanmaktadır. Bu nedenle bilişsel esneklikleri yüksek bireylerin alışık olmadıkları durumlara uyum sağlama ve bilişlerini değiştirebilme yetenekleri yüksektir (Martin ve Anderson, 1998). Bilişsel katılık gösteren yani düşük bilişsel esnekliğe sahip bireylerin alternatif düşüncelerin farkına varabilme ve düşüncelerini değiştirebilme yeteneği daha zayıf olduğu için, bilişsel katılığın sosyal kaygı geliştirmekle ilgili bir risk faktörü olduğu belirtilmektedir (Dağ ve Gülüm, 2013).

Genel öz yeterlik kaygının bir diğer önemli belirleyicisi olarak öne çıkmaktadır (Comunian, 1989). Bandura'ya (1977) göre algılanan genel öz yeterlik, bireylerin belirli bir görev üzerinde ve görevler üzerindeki kendi etkilerinde kontrol edilebilirlik inançlarını yansıtır. Ayrıca kişinin bir davranışı sergilemesi esnasında karşılaştığı engellerle başa çıkma yeteneğine yönelik olumlu inancını temsil eder. Düşük genel öz yeterliğe sahip bireylerin, sosyal ortamlarda performans ortaya koyma konusunda daha başarısız olması muhtemeldir. Bir örnek olarak (bu türden) psikolojik sorun azlığının akademik başarıya olumlu yansıyacağı da söylenebilir (Toprakçı, 2017). Bu yaklaşıma paralel olarak alanyazında yapılan çalışmalar hem çocuklarda hem de yetişkinlerde, düşük genel öz yeterlik ile sosyal kaygı bozukluğu arasında ilişki olduğunu göstermektedir (Goldin vd., 2012; Rudy, Davis ve Matthews, 2012). Alanyazın incelendiğinde genel öz yeterliğin sosyal kaygı üzerinde etkili olabileceği ve bu ilişkide bilişsel esnekliğin aracı rol oynayabileceği belirtilmektedir. Dolayısıyla bireylerin bilişsel esneklik ve genel öz yeterliklerini hedef alan müdahalelerin, bu sorunların sağaltımında önemli bir rol oynaması beklenebilir. Bu durum göz önüne alındığında mevcut çalışmada sosyal kaygı ile genel öz yeterlik arasındaki ilişkide bilişsel esnekliğin aracı rolünün incelenmesi amaçlanmıştır.

Yöntem: Araştırmanın örneklem grubu 18-28 yaş arasındaki 499 üniversite öğrencisidir. Katılımcıların 341 kadın (%68.3) ve 158'i erkektir (%31.6). Örneklem yaş ortalaması 22,48'dir ($S = 2,72$). Araştırmada veri toplama araçları olarak Bilişsel Esneklik Ölçeği, Genel Öz Yeterlik Ölçeği ve Liebowitz Sosyal Kaygı Ölçeği kullanılmıştır. Betimsel verilerin analizinde ortalama ve standart sapma değerlerinden faydalanılmıştır. Çalışmada kullanılan değişken verilerinin normallik varsayımı için ise basıklık ve çarpıklık değerleri incelenmiştir. Sosyal kaygıyı yordadığı anlaşılan genel öz yeterlik açısından bilişsel esnekliğin aracı rolünü inceleyebilmek amacıyla Hayes'in (2013) PROCESS Makro 3.4 sürümünden faydalanarak paralel çoklu aracılık analizleri yapılmıştır. Dolaylı etkilerin anlamlılığını test etmek için örneklem sayısı 5000, güven aralığı %95 olarak belirlenen bias-corrected bootstrap yöntemi kullanılmıştır.

Bulgular: Bağımsız Örneklem t testi sonucuna göre erkeklerin genel sosyal kaygı puanları ($ort=1.05$, $SS=.52$) kadınların genel sosyal kaygı puanlarından ($ort=1.17$, $SS=.56$) istatistiksel olarak anlamlı düzeyde düşüktür $t(497) = -2.32$, $p<.05$. Pearson Momentler Çarpımı Korelasyon analizi sonuçlarına göre sosyal kaygı ile bilişsel esneklik ve genel öz yeterlik arasında pozitif yönde anlamlı bir ilişki olduğu tespit edilmiştir. Yapılan aracılık analizi sonucunda ise, bilişsel esnekliğin, sosyal kaygı ve genel öz yeterlik arasındaki ilişkiye aracılık ettiği bulunmuştur.

Tartışma ve Sonuç: Araştırma bulgularımıza göre erkeklerin genel sosyal kaygı puan ortalamaları kadınların puan ortalamalarından anlamlı olarak düşüktür. Bu durum araştırmalarda tekrar eden bulgulardan biridir (Compton, March ve Nelson 2000; Tok, 2019). Leary ve Kowalsk (1995), kadın ve erkeklerin sahip oldukları sosyal kaygının içinde yaşadıkları toplumsal ortamdan ve bu ortamdaki kişilerden aldıkları geri bildirimlerden etkilendiğini belirtmiştir. Toplumun, erkek ve kadının nasıl davranması gerektiğine yönelik beklentileri toplumsal cinsiyet rolleri olarak tanımlanmaktadır. Toplumsal cinsiyet rollerinin kadın ve erkeğe atfettiği roller topluma ve kültüre göre farklılıklar gösterebilir. (Basow,

1992). Toplumumuzda kız çocuklarının pasif ve utangaç olarak, erkek çocuklarının ise aktif ve girişken olarak yetiştirilmesi yaygın olarak kabul gören bir tutumdur. Pasif ve utangaç olarak yetiştirilen ve toplumsal cinsiyet rolleri kapsamında bu şekilde davranması beklenen kadınların, performans gösterebilecekleri sosyal ortamlara girdiklerinde erkeklere kıyasla daha yüksek düzeyde kaygı hissetmeleri bu toplumsal tutum ile açıklanabilir.

Genel öz yeterlik ile sosyal kaygı arasındaki ilişkiyi belirlemek için yapılan analiz sonuçları istatistiksel olarak anlamlı ve negatif yönlü bir korelasyon ilişkisi olduğunu göstermektedir. Mevcut çalışmanın bulgularına paralel olarak, genel öz yeterlik ve sosyal kaygı arasındaki ilişkiyi inceleyen çalışmalar, bu iki değişken arasında istatistiksel olarak anlamlı negatif yönde bir ilişki olduğunu desteklemektedir (Al-Ruwaili, ve ark. 2018; Aune, Juul, Beidel, Nordahl, Dvorak, 2021; Iancu, Bodner ve Ben-Zion, 2015; Muris, 2002; Park ve Bae, 2015). Araştırmadaki bu sonuç bireyin genel öz yeterliliği azaldıkça sosyal kaygısının artacağını göstermektedir.

Leary ve Atherton (1986), bireyin sosyal bir durumla başa çıkmak için inanç ve beklentileri ne kadar olumlu olursa olayla ilgili o kadar az sosyal kaygı yaşayacağını öne sürmüştür. Birey karşılaştığı sosyal durumu ne kadar iyi yönetebileceğine inanırsa, o sosyal duruma girmekle ilgili o kadar az kaygı hissetmesi beklenmektedir. Çünkü düşük genel öz yeterliğe sahip bireyler sosyal ortamlarda karşılaştıkları durumlarla başa çıkma konusunda başarısız olabilmektedirler (Thomasson ve Psouni, 2019). Bu nedenle düşük genel öz yeterlik, sosyal durumlarla başa çıkmayı zorlaştırarak sosyal kaygıdan kaynaklanan olumsuz deneyimlerin şiddetlenmesine neden olabilir (Iancu ve ark. 2015). Mevcut araştırma bulgularında da genel öz yeterlik ile sosyal kaygı arasındaki negatif yönlü ilişki bu durumla açıklanabilir.

Bilişsel esneklik ve sosyal kaygı arasındaki ilişkiye bakıldığında ise, bu değişkenler arasında da istatistiksel olarak anlamlı negatif yönlü bir ilişki olduğu görülmektedir. Bu sonuç kişinin bilişsel esneklik düzeyi azaldıkça sosyal kaygısının artacağını göstermektedir. Ülkemizde de Dağ ve Gülüm (2013) ve Çiftçi'nin (2019) yaptıkları çalışmalarda elde edilen sonuçlar mevcut çalışmanın sonuçlarıyla paralellik göstermektedir. Clark ve Wells'e (1995) göre, sosyal kaygısı yüksek olan bireyin sosyal ortamlarda performans sergilemekle ilgili korkusu ve başarısızlık varsayımları vardır. Bu işlevsel olmayan düşünceler bireyin bulunduğu ortamı tehlikeli olarak algılamasına yol açar ve bu durum kişinin sosyal kaygısını tetikler. Bilişsel katılık gösteren yani bilişsel esneklik düzeyleri düşük olan bireylerin alternatif düşüncelerin farkına varamaması ve düşüncelerini değerlendirerek değiştirme yeteneklerinin zayıf olması nedeniyle bu işlevsel olmayan düşüncelerle mücadele yetenekleri daha düşük olduğu için sosyal kaygı düzeylerinin yükseldiği söylenebilir.

Araştırmadan elde edilen sonuçlar bütün olarak değerlendirildiğinde sosyal kaygı, bilişsel esneklik ve genel öz yeterliğin birbiriyle ilişkili olduğu görülmektedir. Bu ilişkinin yapısını daha iyi anlamak için yapılan aracılık analizlerinde, bilişsel esnekliğin sosyal kaygı ve genel öz yeterlik arasındaki ilişkiye aracılık ettiği belirlenmiştir. Kurulan modele göre, genel öz yeterlik sosyal kaygı üzerinde etkilidir ancak bu etkinin bir kısmı bilişsel esneklik üzerinden gerçekleşmekte ve bilişsel esneklik aracılığıyla daha güçlü hale gelmektedir. Mevcut sonuçlara paralel olarak Çin'de yapılan bir çalışmada bilişsel esnekliğin sosyal kaygıya aracılık ettiği bulunmuştur (Liu, Qian, Liang, Xie ve Wang, 2022). Yine Çin'de yapılan bir başka çalışmada ise bilişsel esnekliğin kaygıya aracılık ettiği ve şiddetini arttırdığı belirlenmiştir (Yu, Yu ve Lin, 2020). Düşük genel öz yeterliğin, bireyi sosyal ortamlardaki durumlarla başa çıkma konusunda olumsuz yönde etkilediği (Thomasson ve Psouni, 2019) ve olumsuz deneyimlerin şiddetini arttırdığı (Iancu ve ark., 2015) göz önüne alındığında, bireyin sahip olduğu bilişsel katılığın bu düşük genel öz yeterlik düşüncelerinin sorgulanmasını ve değiştirilmesini önlediği ve bu nedenle sosyal kaygının artmasına aracılık ettiği düşünülmektedir.

Öneriler: Mevcut çalışma ve alanyazında yapılan diğer çalışmalar bilişsel esneklik ve genel öz yeterliğin, sosyal kaygının oluşumunda ve seyrinde etkili olabileceğine işaret etmektedir. Alanda çalışan ruh sağlığı uzmanlarına sosyal kaygı ile çalışırken bu değişkenler üzerinde durmaları tavsiye edilebilir. Gelecekteki çalışmalar, bu ilişkiye aracılık edebilecek diğer değişkenleri dikkate alarak modeli genişletebilir. Araştırmanın genellenebilirliği açısından Türkiye'nin farklı bölgelerinden ve farklı yaş gruplarını içeren bir örneklem grubu ile çalışmak faydalı olabilir. Koruyucu ruh sağlığı gözünden bakıldığında ise, üniversitelerde psikolojik danışmanlık ve rehberlik merkezlerinde bilişsel esneklik ve genel öz yeterliğin geliştirilmesine yönelik etkinlikler, seminerler ve eğitimler düzenlenmesinin faydalı olacağı düşünülmektedir.

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