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The Effects of Social Anxiety on Subjective Well-Being among Adolescents: The Mediating Roles of Mindfulness and Loneliness

Ergenlerde Sosyal Kaygının Öznel İyi Oluş Üzerindeki Etkileri: Bilinçli Farkındalık ve Yalnızlığın Aracı Rollerini

ÖZ

Ergenlik, çeşitli geçişlerin ve değişimlerin yaşandığı önemli bir dönemdir. Sosyal kaygıyı deneyimlemek ergenler arasında gittikçe yaygın hale gelen bir olgudur ve onların iyi oluşlarını ve zihinsel sağlıklarını etkiler. Ergenlerin öznel iyi oluşlarını artırmak için sosyal kaygı ile ilgili faktörlere dikkat etmek ve bunları anlamak gerekir. Bu çalışmanın amacı ergenlerde sosyal kaygı ile öznel iyi oluş arasındaki ilişkide bilinçli farkındalık ve yalnızlığın aracı rollerini incelemektir. Verilerin toplanmasında Ergenler için Sosyal Kaygı Ölçeği, Bilinçli Farkındalık Ölçeği Ergen Formu, UCLA Yalnızlık Ölçeği Kısa Formu, Ergen Öznel İyi Oluş Ölçeği ve Genel Bilgi Formu kullanılmıştır. Araştırmaya 543 Türk ergen (%53.6 kadın) katılmıştır. Katılımcıların yaş aralığı 15 ile 18 arasında olup yaş ortalaması 16.45'tir (SS=1.10). Sonuçlar, sosyal kaygının bilinçli farkındalık ve öznel iyi oluş ile negatif, yalnızlıkla pozitif ilişkili olduğunu göstermiştir. Sosyal kaygının, bilinçli farkındalık ve yalnızlık yoluyla öznel iyi oluş üzerinde dolaylı bir etkisi olduğu belirlenmiştir. Bilinçli farkındalık, sosyal kaygının öznel iyi oluş üzerindeki olumsuz etkilerini azaltırken, yalnızlık bu ilişkiyi daha da kötüleştirmiştir. Bu sonuçlar, yüksek düzeyde sosyal kaygıya sahip ergenlerin daha düşük bilinçli farkındalığa ve daha yüksek yalnızlığa sahip olduklarını ve bunun da daha az öznel iyi oluşa yol açtığını göstermiştir. Mevcut çalışmanın bulguları, bilinçli farkındalık ve yalnızlık temelli müdahalelerle bu durumun düzeltilebileceğini önermektedir.

Anahtar Kelimeler: sosyal kaygı, bilinçli farkındalık, yalnızlık, öznel iyi oluş, ergen

ABSTRACT

Adolescence is an important period characterized by various transitions and changes. Experiencing social anxiety is a growing phenomenon among adolescents and affects their well-being and mental health. It is necessary to pay attention and understand the factors related to social anxiety to improve the subjective well-being of adolescents. The current study aimed to examine the mediating roles of mindfulness and loneliness in the association between social anxiety and subjective well-being among adolescents. Social Anxiety Scale for Adolescents, Mindful Attention Awareness Scale Adolescent Form, UCLA Loneliness Scale Short Form, Adolescent Subjective Well Being Scale and General Information Form were used to collect data. 543 Turkish adolescents (53.6% female) participated in the study. The age range of the participants was 15 to 18 years, with a mean age of 16.45 years (SD=1.10). The results demonstrated that social anxiety was negatively associated with mindfulness and subjective well-being, and positively associated with loneliness. It has been determined that social anxiety had an indirect effect on subjective well-being through mindfulness and loneliness. Mindfulness mitigated the adverse impacts of social anxiety on subjective well-being whereas loneliness exacerbated this association. These results have shown that adolescents with high levels of social anxiety have lower mindfulness and higher loneliness, which in turn lead to less subjective well-being. The findings of the current study suggest that this situation may be ameliorable with mindfulness-based and loneliness-based interventions.

Keywords: social anxiety, mindfulness, loneliness, subjective well-being, adolescent

Introduction

Adolescence is an important period characterized by various transitions and changes. Biological changes during this transition period affect the development of adolescents in various areas such as psychological, social, sexual and emotional (Costello et al., 2011). Imaginary audience, personal fable and adolescent egocentrism are the general features encountered in this period. Interpersonal relationships and social support are of great importance in adolescents' ability to cope with these temporary characteristics and in their successful transition to adulthood (Vartanian, 1997). The need for social acceptance and social connectedness begins to emerge during adolescence and becomes widespread throughout adult life (Lee & Robbins, 1995). Therefore, it is considered a critical period for the social development of the individual. However, adolescence is also a period that needs attention in terms of the onset of social anxiety. One factor contributing to social anxiety sensitivity may be some unique maturational changes or cognitive risk factors such as biases in adolescence (Haller et al., 2015). Supporting the psychological and mental health of adolescents is necessary to adopt the consequences of these changes.

Social anxiety is a rapidly growing phenomenon among adolescents. Social anxiety refers to experiencing abnormal fear and avoidance of interaction in social or performance situations where the individual is worried about being evaluated or scrutinized by others (APA, 2013). Gilbert (2001) noted that the appropriate level of social anxiety is adaptive in the evolutionary perspective. This prompts individuals to pay more attention to their presentation and reflection on their behaviors. This cautiousness allows individuals to adapt to environment to develop or maintain social desirability and avoid ostracism. On the other hand, high levels of social anxiety may lead to social anxiety disorder, a common, usually chronic and serious psychiatric illness that can disrupt many aspects of daily life (Schneier et al., 2002).

In the literature, social anxiety was positively associated with mobile phone addiction (Ran et al., 2022), problematic social media use (O'Day & Heimberg, 2021), cannabis use (Single et al., 2022), fear of negative evaluation (Fredrick & Luebbe, 2022), bullying victimization (Wu et al., 2021), suicidality (Buckner et al., 2017), and negatively associated with social cognition (Alvi et al., 2020), self-esteem, interpersonal trust (He, 2022), social support and subjective quality of life (Yang & Lu, 2022). These studies have shown that social anxiety affects the psychosocial well-being of individuals. In addition, Jefferies and Ungar (2020) study, conducted in seven countries, found that the global prevalence of social anxiety is higher than previously reported. Unfortunately, 36% of respondents met the threshold criteria for social anxiety disorder. The prevalence of social anxiety disorder among children and adolescents in Türkiye was determined as 3.9% (Demir et al., 2013). These studies reveal that social anxiety is a worldwide concern and the participants have experienced significant disruptions in functioning and well-being.

Subjective well-being, including life satisfaction, happiness, and positive affect, can be defined as the individual's feeling and thinking of life as desirable rather than how others see it (Diener, 2009). This definition underlines the two dimensions of subjective well-being. The emotional/affective dimension refers to the emotional aspect, and the evaluative/cognitive dimension refers to the evaluative aspect. The predominance of positive feeling over negative feeling and the assessment of individual's life in preponderantly positive terms lead to higher subjective well-being (Das et al., 2020). Hedonic and eudemonic well-being, two different ethical frameworks about what a good life entails, have shed light on many studies on subjective well-being (Vanhoutte & Nazroo, 2014). The hedonic view on well-being, consisting of evaluative and

emotional aspects, aims to minimize pain and maximize pleasurable experiences to achieve a high level of well-being (Diener, 1984). The eudemonic well-being encompasses positive functioning and personal expression (Ryff & Keyes, 1995). Diener (2009) emphasizes that the hedonic well-being reflects an individual's own sense of well-being, rather than an external assessment of whether the person is living a desirable or purposeful life, such as eudemonic well-being. In this study, we focused on the hedonic well-being - the subjective judgment of the well-being.

The expanding literature has shown that the potential resources of individuals such as compassion, forgiveness (Roxas et al., 2019), spirituality, religiosity (Villani et al., 2019), optimism, dispositional hope (Genç & Arslan, 2021), cognitive and emotional hope (Pleeging et al., 2021) promote subjective well-being. However, there is an inverse relationship between subjective well-being and psychological distress (Arslan & Yıldırım, 2021), and addictions (Wu et al., 2023). Although subjective well-being has a role in preventing psychopathology (Gargiulo & Stokes, 2009) and is associated with better psychological health (Diener et al., 2017; Yıldırım & Arslan, 2022), previous studies have shown that social anxiety contributes to decreased subjective well-being (Ye et al., 2021). Social anxiety may lead to maladaptive outcomes such as negative emotions and psychosocial adjustment problems which in turn may reduce the subjective well-being of individuals. For example, individuals with high social anxiety experienced fear of evaluation and reported poor quality of life (Dryman et al., 2016). Belmans et al. (2019) determined that social anxiety symptoms are comorbid with depressive symptoms, which may lead to more severe future mental disorder symptoms such as social anxiety disorders and low well-being. Based on these findings, we can infer the adverse effects of social anxiety on well-being.

1. Mediating roles of mindfulness and loneliness

Mindfulness is defined as the awareness that arises from consciously attending in an open way to whatever is occurring in the present moment (Shapiro, 2009). Shapiro et al. (2006) suggests that the three axioms (intention-I, attention-A, attitude-A) are the fundamental components of mindfulness. It is assumed that most of the difference in transformations observed in mindfulness practices is directly or indirectly explained by these axioms. The IAA model suggests that intentionally participating without judgment results in a remarkable shift in perspective, and re-perceiving reduces psychological symptoms.

Many researchers integrate mindfulness-based programs into their studies to promote the well-being and subsequently mental health of individuals. Empirical evidences have shown that mindfulness develops positive psychological resources (Gilbert et al., 2017), enhances positive emotional experiences (Aldahadha, 2023), supports self-regulatory behaviors (Bockmann & Yu, 2023), reduces social anxiety and psychological distress (Liu et al., 2021; Ünlü Kaynakçı & Yerin Güneri, 2023), and improves mental health as well as well-being (Alrashdi et al., 2023). A recent systematic review has also provided evidence that the mindfulness training provided improvements in the psychological distress symptoms and psychological well-being (da Silva et al., 2023). In addition, mindfulness had a mediating role in the association between psychological problems and well-being. Mindfulness mediated the relationship between perceived stress and quality of life (Dehghan et al., 2020), psychological distress and social support (Wilson et al., 2022), neuroticism and life satisfaction (Alinasab, 2017). On the other hand, the components in the IAA model function simultaneously and interact with each other. Attention is required for attitude formation. A non-judgmental attitude influences how one pays attention to the moment.

Intention helps activate attention and attitude (Shapiro et al., 2006). Mindfulness practices allow for mental space and flexibility. This gives time to think about problems such as experiencing social anxiety. Mindfulness increases balance for emotions, which can reduce the impact of these negative experiences and increase well-being (Kabat-Zinn & Hanh, 2009). These studies and theoretical background show us that mindfulness might reduce the negative effects of social anxiety and boost subjective well-being.

Loneliness can be defined as an unpleasant psychological experience that occurs with discrepancies between expected and actual social relationships (Smoyak, 1984). Loneliness has a relationship with perceived social isolation rather than objective social isolation. Individuals may live relatively solitary lives and not perceive themselves as lonely, or they may experience active social lives and still perceive themselves as lonely (Hawkley & Cacioppo, 2010). A systematic review has shown that the prevalence of loneliness ranged from 9.2% to 14.4% among adolescents (Surkalim et al., 2022). Nasaescu et al. (2020) found that over the years, there has been an increase in antisocial behaviors and loneliness in this vulnerable population. Loneliness lead to negative consequences such as poor sleep quality (Deng et al., 2023), suicidal ideation (Aran et al., 2023), low subjective well-being (Karagöz & Ramkissoon, 2023), and mental health problems (Hards et al., 2022). Eres et al. (2021) found that social anxiety predicted higher loneliness which is likely to affect the subjective well-being of individuals (Çiçek, 2021). Loneliness had a mediating effect in the relationship between social anxiety and life satisfaction (Wang & Yao, 2020), shyness and subjective well-being (Tekin, 2017), and depression and quality of life (Zafar et al., 2021). Social anxiety might lead individuals into a spiral of withdrawal where the possibility of normal social interactions becomes more challenging and subsequently results in loneliness and low well-being (Yen et al., 2012).

2. Present Study

The previous literature mentioned above have shown that social anxiety has detrimental effects on subjective well-being. Despite the adverse consequences associated with social anxiety, there is a dearth of research examining the mechanism between social anxiety and subjective well-being in Turkish adolescents (Dilmaç & Baş, 2019). If researchers can identify variables that play a mediating role, it will be possible to explain the mechanisms underlying this relationship in more detail. We suppose that mindfulness and loneliness may be possible parallel mediators in this association. Additionally, there are studies investigating the relationships between study variables separately. However, there is no study addressing the mediating roles of mindfulness and loneliness in the effect of social anxiety on subjective well-being among adolescents. To address this gap, in the current study, we aimed to examine the following hypotheses: (I) social anxiety would positively predict loneliness, and negatively predict mindfulness and subjective well-being, (II) mindfulness and loneliness would positively and negatively associate with subjective well-being, respectively and (III) mindfulness and loneliness would have mediating roles in the relationship between social anxiety and subjective well-being. The proposed model of this study is presented in Figure 1.

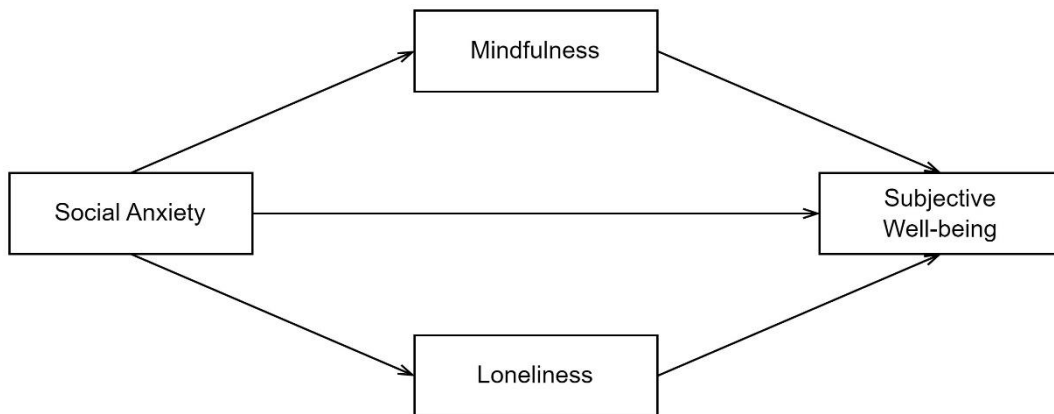


Figure 1. The proposed parallel mediation model

Method

1. Study Design

This research was designed as a cross-sectional study investigating the mediating roles of mindfulness and loneliness in the association between social anxiety and subjective well-being among adolescents. Cross-sectional studies enable researchers to investigate the relationships, differences, or similarities between variables during the period in which the research is conducted without the need for any intervention (Howitt & Cramer, 2020).

2. Participants

The study sample of the research consisted of adolescents between the ages of 15-18 in Agri, Türkiye. G*Power software version 3.1.9.7 was used to determine the required sample size of this study. A priori power analysis calculated that a sample of 348 participants was required for a small effect size ($f^2 = 0.05$) at an alpha of 0.05 to achieve a power of 0.95 (Cohen, 2013). In this study, data were collected from 543 Turkish adolescents. When sufficient participants were reached, the power analysis was repeated as a post hoc procedure with the same criteria, and the power of the sample size ($1-\beta$ error probe) was calculated as 0.99. This value shows that the sample has sufficient power. The age range of the participants was 15 to 18 years, with a mean age of 16.45 years ($SD=1.10$). 291 (53.6%) of the participants were female and 252 (46.4%) were male. 122 (27.3%) were 9th grade students, 173 (38.7%) were 10th grade students, 81 (18.1%) were 11th grade students and 71 (15.9%) were 12th grade students.

3. Measures

3.1. Sociodemographic Form

The form including demographic features such as gender, age and grade level was prepared by the researcher.

3.2. Social Anxiety Scale for Adolescents: La Greca et al. (1988) developed the social anxiety scale for children and the scale was adopted by La Greca and Lopez (1998) for adolescents. The adolescents form was adapted into Turkish by Aydın and Tekinsav Sütçü (2007). The 18-item scale consists of three subscales: “fear of negative evaluation”, “general social avoidance and distress”, and “social avoidance and distress in new situations”. Each item is rated

on a 5-point Likert-type scale ranging from 1=never to 5=always. Example items are “I think others are making fun of me” and “It's hard to ask others to do things with me”. Higher scores indicate higher social anxiety. Cronbach's alpha coefficient was calculated as .88. In this study, the confirmatory factor analysis results were: CMIN: 285.46, df: 132, CFI: 0.97, TLI: 0.97, RMSEA: 0.04, SRMR: 0.02, p: 0.00. The Cronbach alpha coefficient was .95.

3.3. Mindful Attention Awareness Scale Adolescent Form: The scale was developed by Brown et al. (2011) and adapted into Turkish by Turan (2020). The scale is one-dimensional scale with 14 items. Each item is scored on a 6-point Likert-type scale ranging from 1=almost always to 6=almost never. Example items are “I perform tasks automatically without being aware of what I am doing” and “I do activities in a hurry, without really paying attention to them”. Higher scores show higher mindfulness. Cronbach's alpha coefficient was found to be .78. In this study, the confirmatory factor analysis results were: CMIN: 155.40, df: 77, CFI: 0.98, TLI: 0.98, RMSEA: 0.04, SRMR: 0.02, p: 0.00. The Cronbach alpha coefficient was .95.

3.4. UCLA Loneliness Scale Short Form: The scale was developed by Hays and DiMatteo (1987) and adapted to the Turkish culture by Yıldız and Duy (2014). The scale is seven-item unidimensional assessment tool. Each item is measured on a 4-point Likert-type scale ranging from 1=never to 4=always. An example item is “I don't have any friends”. Increasing scores indicate an increase in the level of loneliness. Cronbach's alpha coefficient was calculated as .74. In this study, the confirmatory factor analysis results were: CMIN: 41.48, df: 14, CFI: 0.97, TLI: 0.96, RMSEA: 0.06, SRMR: 0.02, p: 0.00. The Cronbach alpha coefficient was .83.

3.5. Adolescent Subjective Well Being Scale: The scale was developed by Eryilmaz (2009) for adolescents. The 15-item scale consists of four subscales: “satisfaction with family relationships”, “satisfaction with significant others relationships”, “life satisfaction”, and “positive feelings”. Each item is rated on a 4-point Likert-type scale ranging from 1= strongly disagree to 4= totally agree. Example items are “My family supports me” and “I am tolerant towards people”. High scores show high subjective well-being of the adolescents. Cronbach's alpha coefficient was found to be .86. In this study, the confirmatory factor analysis results were: CMIN: 192.87, df: 84, CFI: 0.97, TLI: 0.96, RMSEA: 0.04, SRMR: 0.02, p: 0.00. The Cronbach alpha coefficient was .93.

4. Procedure

Data was collected between May 1 and June 15, 2023 using structured online Google Forms. We created an online questionnaire. The "limit participant to 1 response" setting was enabled to prevent the same participants from submitting multiple responses. To ensure that items were not left blank, the "required" setting was activated for each item. Participants were invited to participate in the study via social media and were given detailed information about the aim of the study, their right to withdraw from the survey during or after participation, and the anonymity and confidentiality of their personal information. We obtained informed consent from parents and adolescents who were willing to continue through the first page of the online questionnaire. This study was conducted in accordance with the Helsinki Declaration. The ethics committee of Agri Ibrahim Cecen University approved this study (Ethic Code: 69653). It took an average of 20 minutes to fill out the scales.

5. Data Analysis

Preliminary analyses were performed including mean, standard deviation, Cronbach's alpha and Pearson correlation coefficients for the study variables. Normality assumption was tested by skewness and kurtosis scores. According to Tabachnick et al. (2013), kurtosis and skewness

coefficients are considered normal distribution if they are between +1.5 and -1.5. Mediation analysis (model 4) was performed using PROCESS macro v4.2 with SPSS 27 (Hayes, 2017). For mediation analysis, we used 10,000 bootstraps to examine the indirect effects of the mediators. Hayes (2017) stated that if there is no zero in the confidence intervals, the indirect effect is statistically significant. Statistical significance was accepted as $p < 0.01$.

Results

Means, standard deviations, skewness and kurtosis values, and correlations between variables are presented in Table 1. It was determined that the participants' social anxiety (54.30 ± 19.04), mindfulness (48.43 ± 18.70) and loneliness (17.11 ± 5.05) mean scores were at a medium level, as they were close to the average scores that could be obtained from the scale, and their subjective well-being (39.38 ± 11.10) mean scores were high. Preliminary analysis showed that skewness values ranged between -0.10 and 0.11 , and kurtosis values ranged between -0.82 and -0.92 . These values indicated that none of the variables violated the normality assumption. Correlation analysis showed that social anxiety had significant negative correlations with mindfulness ($r = -.78$, $p < .001$) and subjective well-being ($r = -.68$, $p < .001$) as well as a significant positive correlation with loneliness ($r = .50$, $p < .001$). Mindfulness had a significant negative correlation with loneliness ($r = -.45$, $p < .001$) and a significant positive correlation with subjective well-being ($r = .74$, $p < .001$). Loneliness had a significant negative correlation with subjective well-being ($r = -.52$, $p < .001$). In correlational studies, Cohen (2013) stated that there is a weak relationship between $.10$ and $.29$, a moderate relationship between $.30$ and $.49$, and a strong relationship between $.50$ and 1.00 . Correlation analysis results showed a weak relationship between loneliness and social anxiety, but a strong relationship between other variables.

Table 1. The results of the descriptive statistics and Pearson Momentler Correlation analyses

Variables	M	SD	Skewness	Kurtosis	Correlation			
					1	2	3	4
1. Social Anxiety	54.30	19.04	-.09	-.92	-			
2. Mindfulness	48.43	18.70	.11	-.90	-.78**	-		
3. Loneliness	17.11	5.05	.01	-.84	.50**	-.45**	-	
4. Subjective Well-being	39.38	11.10	-.10	-.82	-.68**	.74**	-.52**	-

Notes: M = mean, SD = standard deviations, ** $p < 0.001$.

A parallel mediation analysis was performed with a bootstrapping resampling procedure to explain how mindfulness and loneliness contributed to the relationship between social anxiety and subjective well-being (see Fig. 2). The results showed that social anxiety was a significant predictor of mindfulness ($\beta = -0.76$, $p < 0.001$), loneliness ($\beta = 0.13$, $p < 0.001$), and subjective well-being ($\beta = -0.12$, $p < 0.001$). Social anxiety explained 60% of the variance in mindfulness and 25% of the variance in loneliness. Subjective well-being was significantly predicted by mindfulness ($\beta = 0.29$, $p < 0.001$) and loneliness ($\beta = -.43$, $p < 0.001$). Social anxiety, mindfulness and loneliness significantly predicted subjective well-being by explaining 60% of the variance in subjective well-being, as shown in Table 2. Social anxiety had indirect effects on subjective well-being through mindfulness (effect = -0.22 , $[-0.27, -0.17]$) and loneliness (effect = -0.06 , $[-0.08, -0.03]$), as presented in Table 3. In mediation analyses, partial mediation can be mentioned if the direct relationship between the dependent variable and the independent variable decreases significantly when the mediator is included in the model. These findings indicate that mindfulness

and loneliness partially mediated the link between social anxiety and subjective well-being. All these results show that all three hypotheses of the study were confirmed.

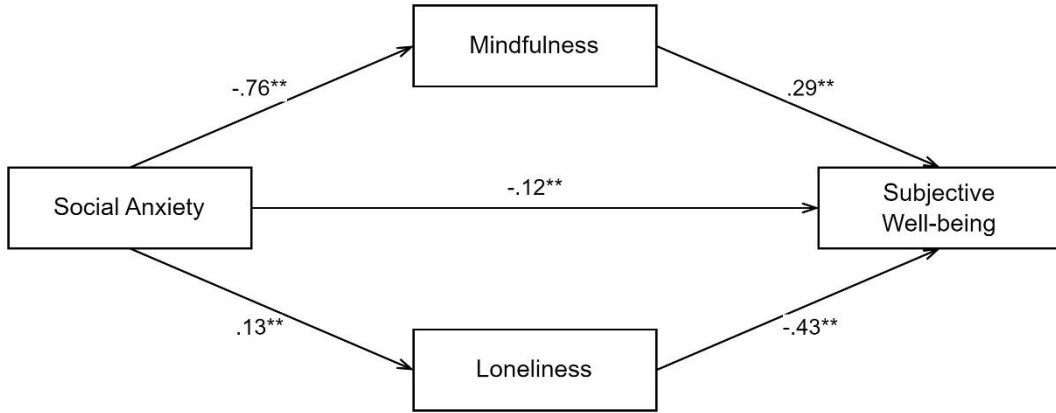


Figure 2. Structural model regarding the associations between the variables

Table 2. The results of the parallel mediation analysis.

Antecedent		Consequent													
		M ₁ (Mindfulness)				M ₂ (Loneliness)				Y ₁ (Subjective well-being)					
		Coeff.	SE	t	p	Coeff.	SE	t	p	Coeff.	SE	t	p		
X (Social anxiety)	a ₁	-.76	.02	-29.01	.00	a ₂	.13	.01	13.43	.00	c'	-.12	.02	-4.54	.00
M ₁ (Mindfulness)		-	-	-	-	-	-	-	-	-	b ₁	.29	.02	11.36	.00
M ₂ (Loneliness)		-	-	-	-	-	-	-	-	-	b ₂	-.43	.06	-6.27	.00
Constant	i _{M1}	90.04	1.51	59.26	.00	i _{M2}	9.90	.56	17.42	.00	i _y	39.03	2.64	14.73	.00
		R ² = .60				R ² = .25				R ² = .60					
		F = 842.15; p < .001				F = 180.38; p < .001				F = 278.14; p < .001					

Notes: X = independent variable, M = mediator variable, Y = dependent variable, Coeff. = unstandardized coefficient, SE = standard error.

Table 3. Total, direct, and indirect effects.

Path	Effect	SE	BootLLCI	BootULCI
Total effect	-.40	.01	-.43	-.46
Direct effect	-.11	.02	-.16	-.06
Total indirect effect	-.28	.02	-.33	-.23
Social anxiety->Mindfulness->Subjective well-being	-.22	.02	-.27	-.17
Social anxiety->Loneliness->Subjective well-being	-.06	.01	-.08	-.03

Note. SE = standard error, LLCI = lower level of the 95% confidence interval, ULCI = upper level of the 95% confidence interval.

Discussion

To our best knowledge, this study is first to investigate the mediating roles of mindfulness and loneliness in the relationship between social anxiety and subjective well-being among Turkish adolescents. Social anxiety is a type of anxiety that arises from anticipated or actual interpersonal assessment in real or imagined social situations (Schlenker & Leary, 1982) and has harmful consequences for individuals and societies. Subjective well-being indicates healthy psychological development and good mental health, and studies have proven that subjective well-being is an essential factor in assessing an individual's mental well-being (Lucas & Diener, 2008). There is a crucial need to figure out mitigating factors to provide effective prevention and interventions to reduce social anxiety and improve adolescent mental health. To this end, the current study investigated the mediating roles of mindfulness and loneliness in the relationship between social anxiety and subjective well-being.

The findings of this study showed that social anxiety predicted mindfulness, loneliness and subjective well-being which confirmed our first hypothesis. Adolescents with high social anxiety reported high loneliness, poor mindfulness, and subjective well-being. Similar to our results, Fernandez et al. (2018) found that psychopathology factors such as depression, anxiety, social anxiety, and dissocial behaviors predicted low subjective well-being in adolescents. A study showed that the subjective well-being levels of socially anxious students were lower than those who did not experience social anxiety in Türkiye (Öztürk & Mutlu, 2010). Rasmussen and Pidgeon (2011) found the predictor role of mindfulness regarding the positive benefits of mindfulness such as a heightened awareness. Additionally, O'Day et al. (2021) reported that individuals with social anxiety had a higher risk of loneliness. Cognitive risk factors associated with social anxiety, such as interpretation biases that are likely to emerge during adolescence period, may lead to a more complex understanding of social situations and interactions, and this causes the withdrawal from the society (Haller et al., 2015). These findings indicate that individuals with dysfunctional social anxiety suffer from loneliness and have less mindful and subjective well-being.

The present study found that mindfulness had a positive effect on subjective well-being, but loneliness had a negative effect. More mindful and less loneliness adolescents indicated high subjective-well-being. The positive impact of mindfulness on well-being was consistent with the results of the Lan et al. (2014) study confirming that mindfulness relieved participants' depression, anxiety and stress, and generated higher subjective well-being. Mindfulness also enhance individuals' attention and awareness of their present experiences which lead to positive psychological outcomes (Rehman et al., 2023). In addition, interpersonal relationships are one of the determinants of well-being. Positive relationships promote psychological well-being, and loneliness may pose a risk to adolescent's well-being (Corsano et al., 2006).

Further, mindfulness mediated the association between social anxiety and subjective well-being among Turkish adolescents. Socially anxious participants scored low levels of mindfulness, which in turn low levels of subjective well-being. This suggests that there is a relationship between social anxiety and poor subjective well-being due to decreased mindfulness. We can infer from this finding that mindfulness acted as a mediator in the link between mental health problems and well-being. This idea has also been confirmed in several studies. For example, Dehghan et al. (2020) found that mindfulness buffered the adverse effect of stress on quality of life. Huang et al. (2021) study highlighting the importance of mindfulness interventions in

buffering the adverse life circumstances, found that the effects of negative life experiences on psychological well-being was mitigated by mindfulness. The current study suggests that the subjective well-being of adolescents with social anxiety may increase as they become more mindful.

The current study also found that loneliness acted as a mediator in the association between social anxiety and subjective well-being. Adolescents with social anxiety experienced high loneliness, which in turn low well-being. This finding is consistent with the results of Maričić and Štambuk (2015) who determined the mediating role of loneliness in the link between social anxiety and subjective well-being among young adults. The researchers suggest that some individuals with social anxiety may experience behavioral avoidance in social situations which has detrimental effects in daily life functioning and leads to loneliness. This causes poor social relationships and subjective well-being in individuals. In addition, children with social anxiety reported high levels of loneliness, leading to low life satisfaction (Wang & Yao, 2020). Shyness, one of the variables that predicts social anxiety and subjective well-being were mediated by loneliness (Poole et al., 2017; Tekin, 2017). These studies show that socially anxious individuals were dissatisfied with the quality of their social functioning and the evaluation of feelings and thoughts regarding their life domains.

Given the literature supporting that high levels of mindfulness and low levels of loneliness are the key features for better mental health and well-being, which might reduce the adverse effects of social anxiety on subjective well-being and play a mitigating role in this relationship. This study results highlight the importance of mindfulness and reducing individuals' experience of loneliness in preventing or reducing the psychosocial challenges of social anxiety.

Türkiye is mostly a collectivist culture (Fikret Pasa et al., 2001). Heinrichs et al. (2006) stated that in collectivist cultures, harmony within the group is prioritized and the improvement of the larger social group is considered more important than individual gain. In addition, more overt social norms are likely to exist in collectivist countries to maintain social harmony. This may be why individuals in collectivist countries are more socially anxious than in individualistic countries (Heinrichs et al., 2006). The current study and previous studies with Turkish adolescents confirmed this premise. For example, studies showed that fear of social exclusion was associated with social anxiety which predicted loneliness and poor mental health in this vulnerable group (Erözkan, 2009; Yakup & Çelik, 2020).

Although the results showed that mindfulness and loneliness are mechanisms to consider that may contribute to a better understanding of the link between social anxiety and subjective well-being, the study has some limitations. The first limitation is that the data are cross-sectional data that do not ascertain causal interpretation between the variables. Different methodological approaches can be applied in future research, such as longitudinal research, which provides additional information on the relationships between these variables. Second limitation is that the sample of the study consisted of adolescents. This suggests that the results can only be generalized to the target population. Researchers should examine these variables with diverse populations (young adults, older adults, college students, etc.) and cultures. Finally, the data of the study were collected through self-report measures and may lead to biases.

In conclusion, this study highlights mindfulness and loneliness as key points of intervention for adolescents experiencing social anxiety. Social anxiety and loneliness are negatively associated with mindfulness and subjective well-being whereas mindfulness is positively associated with

subjective well-being. More importantly, the mediation analysis discovered the mediating effects of mindfulness and loneliness in the links from social anxiety to subjective well-being. The findings of the current study provide evidence that social anxiety is a risk factor among adolescents due to lack of conscious and social relationships. Mental health professionals should integrate healthy social relationships rather than social isolation into their practices to reduce the adverse impact of social anxiety and promote the subjective well-being of adolescents.

References

- Aldahadha, B. (2023). Self-disclosure, mindfulness, and their relationships with happiness and well-being. *Middle East Current Psychiatry*, 30(1), 7. <https://doi.org/10.1186/s43045-023-00278-5>
- Alinasab, S. (2017). Relationship between extraversion/neuroticism and mental well-being: The mediating role of mindfulness. *11(1)*, 1-12. <https://doi.org/10.29252/rph.11.1.1>
- Alrashdi, D. H., Chen, K. K., Meyer, C., & Gould, R. L. (2023). A Systematic Review and Meta-analysis of Online Mindfulness-Based Interventions for University Students: An Examination of Psychological Distress and Well-being, and Attrition Rates. *Journal of Technology in Behavioral Science*, 1-13. <https://doi.org/10.1007/s41347-023-00321-6>
- Alvi, T., Kouros, C. D., Lee, J., Fulford, D., & Tabak, B. A. (2020). Social anxiety is negatively associated with theory of mind and empathic accuracy. *Journal of abnormal psychology*, 129(1), 108. <https://doi.org/10.1037/abn0000493>
- APA, A. P. A. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (Vol. 5). American psychiatric association Washington, DC.
- Aran, N., Card, K. G., Lee, K., & Hogg, R. S. (2023). Patterns of suicide and suicidal ideation in relation to social isolation and loneliness in newcomer populations: a review. *Journal of immigrant and minority health*, 25(2), 415-426. <https://doi.org/10.1007/s10903-022-01422-9>
- Arslan, G., & Yıldırım, M. (2021). Meaning-based coping and spirituality during the COVID-19 pandemic: mediating effects on subjective well-being. *Frontiers in psychology*, 12, 646572. <https://doi.org/10.3389/fpsyg.2021.646572>
- Aydın, A., & Tekinsav Sütçü, S. (2007). Ergenler İçin Sosyal Kaygı Ölçeğinin (ESKÖ) Geçerlik ve Güvenirliğin İncelenmesi.
- Belmans, E., Bastin, M., Raes, F., & Bijttebier, P. (2019). Temporal associations between social anxiety and depressive symptoms and the role of interpersonal stress in adolescents. *Depression and anxiety*, 36(10), 960-967. <https://doi.org/10.1002/da.22939>
- Bockmann, J. O., & Yu, S. Y. (2023). Using mindfulness-based interventions to support self-regulation in young children: A review of the literature. *Early childhood education journal*, 51(4), 693-703. <https://doi.org/10.1007/s10643-022-01333-2>
- Brown, K. W., West, A. M., Loverich, T. M., & Biegel, G. M. (2011). Assessing adolescent mindfulness: validation of an adapted Mindful Attention Awareness Scale in adolescent normative and psychiatric populations. *Psychological assessment*, 23(4), 1023. <https://doi.org/10.1037/a0021338>
- Buckner, J. D., Lemke, A. W., Jeffries, E. R., & Shah, S. M. (2017). Social anxiety and suicidal ideation: Test of the utility of the interpersonal-psychological theory of suicide. *Journal of anxiety disorders*, 45, 60-63. <https://doi.org/10.1016/j.janxdis.2016.11.010>
- Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Routledge.
- Corsano, P., Majorano, M., & Champretavy, L. (2006). Psychological well-being in adolescence: the contribution of interpersonal relations and experience of being alone. *Adolescence*, 41(162).
- Costello, E. J., Copeland, W., & Angold, A. (2011). Trends in psychopathology across the adolescent years: what changes when children become adolescents, and when adolescents

- become adults? *Journal of child psychology and psychiatry*, 52(10), 1015-1025. <https://doi.org/10.1111/j.1469-7610.2011.02446.x>
- Çiçek, I. (2021). Mediating Role of Self-Esteem in the Association between Loneliness and Psychological and Subjective Well-Being in University Students. *International Journal of Contemporary Educational Research*, 8(2), 83-97.
- da Silva, C. C. G., Bolognani, C. V., Amorim, F. F., & Imoto, A. M. (2023). Effectiveness of training programs based on mindfulness in reducing psychological distress and promoting well-being in medical students: a systematic review and meta-analysis. *Systematic Reviews*, 12(1), 1-28. <https://doi.org/10.1186/s13643-023-02244-y>
- Das, K. V., Jones-Harrell, C., Fan, Y., Ramaswami, A., Orlove, B., & Botchwey, N. (2020). Understanding subjective well-being: perspectives from psychology and public health. *Public Health Reviews*, 41(1), 1-32. <https://doi.org/10.1186/s40985-020-00142-5>
- Dehghan, M., Jazinizade, M., Malakoutikhah, A., Madadimahani, A., Iranmanesh, M. H., Oghabian, S., Mohammadshahi, F., Janfaza, F., & Zakeri, M. A. (2020). Stress and quality of life of patients with cancer: the mediating role of mindfulness. *Journal of Oncology*, 2020. <https://doi.org/10.1155/2020/3289521>
- Demir, T., Karacetin, G., Demir, D. E., & Uysal, O. (2013). Prevalence and some psychosocial characteristics of social anxiety disorder in an urban population of Turkish children and adolescents. *European Psychiatry*, 28(1), 64-69. <https://doi.org/10.1016/j.eurpsy.2011.12.003>
- Deng, M., Qian, M., Lv, J., Guo, C., & Yu, M. (2023). The association between loneliness and sleep quality among older adults: A systematic review and meta-analysis. *Geriatric Nursing*, 49, 94-100. <https://doi.org/10.1016/j.gerinurse.2022.11.013>
- Diener, E. (1984). Subjective well-being. *Psychological bulletin*, 95(3), 542. <https://doi.org/10.1037/0033-2909.95.3.542>
- Diener, E. (2009). *The science of well-being: The collected works of Ed Diener* (Vol. 37). Springer.
- Diener, E., Pressman, S. D., Hunter, J., & Delgado-Chase, D. (2017). If, why, and when subjective well-being influences health, and future needed research. *Applied Psychology: Health and Well-Being*, 9(2), 133-167. <https://doi.org/10.1111/aphw.12090>
- Dilmaç, B., & Baş, A. (2019). Ergenlerin sahip oldukları değerler, öznel iyi oluşları ve sosyal kaygıları arasındaki yordayıcı ilişki. *Manas Sosyal Araştırmalar Dergisi*, 8(4), 3685-3697. <https://doi.org/10.33206/mjss.546820>
- Dryman, M. T., Gardner, S., Weeks, J. W., & Heimberg, R. G. (2016). Social anxiety disorder and quality of life: How fears of negative and positive evaluation relate to specific domains of life satisfaction. *Journal of anxiety disorders*, 38, 1-8. <https://doi.org/https://doi.org/10.1016/j.janxdis.2015.12.003>
- Eres, R., Lim, M. H., Lanham, S., Jillard, C., & Bates, G. (2021). Loneliness and emotion regulation: Implications of having social anxiety disorder. *Australian Journal of Psychology*, 73(1), 46-56. <https://doi.org/10.1080/00049530.2021.1904498>
- Erözkan, A. (2009). Ergenlerde yalnızlığın yordayıcıları. *İlköğretim Online*, 8(3), 1-11.
- Eryılmaz, A. (2009). Ergen öznel iyi oluş ölçeğinin geliştirilmesi. *Türk Eğitim Bilimleri Dergisi*, 7(4), 975-989.
- Fernandez, M. E., Damme, L. V., Pauw, S. D., Costa-Ball, D., Daset, L., & Vanderplasschen, W. (2018). The moderating role of age and gender differences in the relation between subjective well-being, psychopathology and substance use in Uruguayan adolescents. *Revista Latinoamericana de Psicopatologia Fundamental*, 21, 486-510. <https://doi.org/10.1590/1415-4714.2018v21n3p486.5>
- Fikret Pasa, S., Kabasakal, H., & Bodur, M. (2001). Society, organisations, and leadership in Turkey. *Applied Psychology*, 50(4), 559-589. <https://doi.org/10.1111/1464-0597.00073>
- Fredrick, J. W., & Luebbe, A. M. (2022). Prospective associations between fears of negative evaluation, fears of positive evaluation, and social anxiety symptoms in adolescence.

- Child Psychiatry & Human Development*, 1-11. <https://doi.org/10.1007/s10578-022-01396-7>
- Gargiulo, R. A., & Stokes, M. A. (2009). Subjective well-being as an indicator for clinical depression. *Social indicators research*, 92, 517-527. <https://doi.org/10.1007/s11205-008-9301-0>
- Genç, E., & Arslan, G. (2021). Optimism and dispositional hope to promote college students' subjective well-being in the context of the COVID-19 pandemic. *Journal of Positive School Psychology*, 5(2), 87-96. <https://doi.org/10.47602/jpsp.v5i2.255>
- Gilbert, E. K., Foulk, T. A., & Bono, J. E. (2017). Building positive psychological resources: The effects of mindfulness, work breaks, and positive reflection. *The handbook of stress and health: A guide to research and practice*, 538-552. <https://doi.org/10.1002/9781118993811.ch33>
- Gilbert, P. (2001). Evolution and social anxiety: The role of attraction, social competition, and social hierarchies. *Psychiatric Clinics*, 24(4), 723-751. [https://doi.org/10.1016/S0193-953X\(05\)70260-4](https://doi.org/10.1016/S0193-953X(05)70260-4)
- Haller, S. P., Kadosh, K. C., Scerif, G., & Lau, J. Y. (2015). Social anxiety disorder in adolescence: How developmental cognitive neuroscience findings may shape understanding and interventions for psychopathology. *Developmental cognitive neuroscience*, 13, 11-20. <https://doi.org/10.1016/j.dcn.2015.02.002>
- Hards, E., Loades, M. E., Higson-Sweeney, N., Shafran, R., Serafimova, T., Brigden, A., Reynolds, S., Crawley, E., Chatburn, E., & Linney, C. (2022). Loneliness and mental health in children and adolescents with pre-existing mental health problems: A rapid systematic review. *British Journal of Clinical Psychology*, 61(2), 313-334. <https://doi.org/10.1111/bjc.12331>
- Hawkley, L. C., & Cacioppo, J. T. (2010). Loneliness matters: A theoretical and empirical review of consequences and mechanisms. *Annals of behavioral medicine*, 40(2), 218-227. <https://doi.org/10.1007/s12160-010-9210-8>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
- Hays, R. D., & DiMatteo, M. R. (1987). A short-form measure of loneliness. *Journal of personality assessment*, 51(1), 69-81. https://doi.org/10.1207/s15327752jpa5101_6
- He, X. (2022). Relationship between self-esteem, interpersonal trust, and social anxiety of college students. *Occupational Therapy International*, 2022. <https://doi.org/10.1155/2022/8088754>
- Heinrichs, N., Rapee, R. M., Alden, L. A., Bögels, S., Hofmann, S. G., Oh, K. J., & Sakano, Y. (2006). Cultural differences in perceived social norms and social anxiety. *Behaviour research and therapy*, 44(8), 1187-1197. <https://doi.org/10.1016/j.brat.2005.09.006>
- Howitt, D., & Cramer, D. (2020). *Research methods in psychology*. Pearson.
- Huang, C.-C., Tan, Y., Cheung, S. P., & Hu, H. (2021). Adverse childhood experiences and psychological well-being in Chinese college students: mediation effect of mindfulness. *International journal of environmental research and public health*, 18(4), 1636. <https://doi.org/10.3390/ijerph18041636>
- Jefferies, P., & Ungar, M. (2020). Social anxiety in young people: A prevalence study in seven countries. *PloS one*, 15(9), e0239133. <https://doi.org/10.1371/journal.pone.0239133>
- Kabat-Zinn, J., & Hanh, T. N. (2009). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. Delta.
- Karagöz, D., & Ramkissoon, H. (2023). Loneliness, travel nostalgia, subjective well-being and prevention regulatory focus: A moderated mediation model analysis. *Current Issues in Tourism*, 1-17. <https://doi.org/10.1080/13683500.2023.2175201>
- La Greca, A. M., Dandes, S. K., Wick, P., Shaw, K., & Stone, W. L. (1988). Development of the Social Anxiety Scale for Children: Reliability and concurrent validity. *Journal of Clinical Child Psychology*, 17(1), 84-91. https://doi.org/10.1207/s15374424jccp1701_11

- La Greca, A. M., & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of abnormal child psychology*, 26, 83-94. <https://doi.org/10.1023/A:1022684520514>
- Lan, H. K., Subramanian, P., Rahmat, N., & Kar, P. C. (2014). The effects of mindfulness training program on reducing stress and promoting well-being among nurses in critical care units. *Australian Journal of Advanced Nursing, The*, 31(3), 22-31.
- Lee, R. M., & Robbins, S. B. (1995). Measuring belongingness: The social connectedness and the social assurance scales. *Journal of counseling psychology*, 42(2), 232. <https://doi.org/10.1037/0022-0167.42.2.232>
- Liu, X., Yi, P., Ma, L., Liu, W., Deng, W., Yang, X., Liang, M., Luo, J., Li, N., & Li, X. (2021). Mindfulness-based interventions for social anxiety disorder: A systematic review and meta-analysis. *Psychiatry research*, 300, 113935. <https://doi.org/https://doi.org/10.1016/j.psychres.2021.113935>
- Lucas, R. E., & Diener, E. (2008). Subjective well-being. *Handbook of emotions*, 471484.
- Maričić, A., & Štambuk, M. (2015). The role of loneliness in the relationship between social anxiety and subjective well-being: using the Social Phobia Inventory (SPIN) as a measure. *Društvena istraživanja: časopis za opća društvena pitanja*, 24(3), 407-426. <https://doi.org/10.5559/di.24.3.05>
- Nasaescu, E., Zych, I., Ortega-Ruiz, R., Farrington, D. P., & Llorent, V. J. (2020). Longitudinal patterns of antisocial behaviors in early adolescence: A latent class and latent transition analysis. *European Journal of Psychology Applied to Legal Context*, 12(2), 85-92. <https://doi.org/10.5093/ejpalc2020a10>
- O'Day, E. B., Butler, R. M., Morrison, A. S., Goldin, P. R., Gross, J. J., & Heimberg, R. G. (2021). Reductions in social anxiety during treatment predict lower levels of loneliness during follow-up among individuals with social anxiety disorder. *Journal of anxiety disorders*, 78, 102362. <https://doi.org/10.1016/j.janxdis.2021.102362>
- O'Day, E. B., & Heimberg, R. G. (2021). Social media use, social anxiety, and loneliness: A systematic review. *Computers in Human Behavior Reports*, 3, 100070. <https://doi.org/10.1016/j.chbr.2021.100070>
- Öztürk, A., & Mutlu, T. (2010). The relationship between attachment style, subjective well-being, happiness and social anxiety among university students'. *Procedia-Social and Behavioral Sciences*, 9, 1772-1776. <https://doi.org/10.1016/j.sbspro.2010.12.398>
- Pleeging, E., Burger, M., & van Exel, J. (2021). The relations between hope and subjective well-being: A literature overview and empirical analysis. *Applied Research in Quality of Life*, 16, 1019-1041. <https://doi.org/10.1007/s11482-019-09802-4>
- Poole, K. L., Van Lieshout, R. J., & Schmidt, L. A. (2017). Exploring relations between shyness and social anxiety disorder: The role of sociability. *Personality and Individual Differences*, 110, 55-59. <https://doi.org/10.1016/j.paid.2017.01.020>
- Ran, G., Li, J., Zhang, Q., & Niu, X. (2022). The association between social anxiety and mobile phone addiction: A three-level meta-analysis. *Computers in Human Behavior*, 130, 107198. <https://doi.org/10.1016/j.chb.2022.107198>
- Rasmussen, M. K., & Pidgeon, A. M. (2011). The direct and indirect benefits of dispositional mindfulness on self-esteem and social anxiety. *Anxiety, Stress, & Coping*, 24(2), 227-233. <https://doi.org/10.1080/10615806.2010.515681>
- Rehman, A. U., You, X., Wang, Z., & Kong, F. (2023). The link between mindfulness and psychological well-being among university students: The mediating role of social connectedness and self-esteem. *Current Psychology*, 42(14), 11772-11781. <https://doi.org/10.1007/s12144-021-02428-6>
- Roxas, M. M., David, A. P., & Aruta, J. J. B. R. (2019). Compassion, forgiveness and subjective well-being among Filipino counseling professionals. *International Journal for the Advancement of Counselling*, 41, 272-283. <https://doi.org/10.1007/s10447-019-09374-w>

- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of personality and social psychology*, 69(4), 719. <https://doi.org/10.1037/0022-3514.69.4.719>
- Schlenker, B. R., & Leary, M. R. (1982). Social anxiety and self-presentation: A conceptualization model. *Psychological bulletin*, 92(3), 641. <https://doi.org/10.1037/0033-2909.92.3.641>
- Schneier, F. R., Blanco, C., Antia, S. X., & Liebowitz, M. R. (2002). The social anxiety spectrum. *Psychiatric Clinics*, 25(4), 757-774. [https://doi.org/10.1016/S0193-953X\(02\)00018-7](https://doi.org/10.1016/S0193-953X(02)00018-7)
- Shapiro, S. L. (2009). The integration of mindfulness and psychology. *Journal of clinical psychology*, 65(6), 555-560. <https://doi.org/10.1002/jclp.20602>
- Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of clinical psychology*, 62(3), 373-386. <https://doi.org/10.1002/jclp.20237>
- Single, A., Bilevicius, E., Ho, V., Theule, J., Buckner, J. D., Mota, N., & Keough, M. T. (2022). Cannabis use and social anxiety in young adulthood: A meta-analysis. *Addictive behaviors*, 129, 107275. <https://doi.org/10.1016/j.addbeh.2022.107275>
- Smoyak, S. A. (1984). Loneliness: a sourcebook of current theory, research and therapy. In (Vol. 22, pp. 40-41): SLACK Incorporated Thorofare, NJ.
- Surkalim, D. L., Luo, M., Eres, R., Gebel, K., van Buskirk, J., Bauman, A., & Ding, D. (2022). The prevalence of loneliness across 113 countries: systematic review and meta-analysis. *Bmj*, 376. <https://doi.org/10.1136/bmj-2021-067068>
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2013). *Using multivariate statistics* (Vol. 6). Pearson Boston, MA.
- Tekin, E. G. (2017). Shyness and subjective well-being: the mediating role of loneliness. *Ceskoslovenska Psychologie*, 61(4).
- Turan, M. E. (2020). Bilinçli Farkındalık Ölçeği Ergen Formu'nun geçerlik ve güvenilirlik çalışması. *OPUS International Journal of Society Researches*, 16(Eğitim ve Toplum Özel sayısı), 5608-5625. <https://doi.org/10.26466/opus.683364>
- Ünlü Kaynakçı, F. Z., & Yerin Güneri, O. (2023). Psychological distress among university students: the role of mindfulness, decentering, reappraisal and emotion regulation. *Current Psychology*, 42(17), 14823-14833. <https://doi.org/10.1007/s12144-021-02682-8>
- Vanhoutte, B., & Nazroo, J. (2014). Cognitive, affective and eudemonic well-being in later life: Measurement equivalence over gender and life stage. *Sociological research online*, 19(2), 1-14. <https://doi.org/10.5153/sro.3241>
- Vartanian, L. R. (1997). Separation-individuation, social support, and adolescent egocentrism: An exploratory study. *The Journal of Early Adolescence*, 17(3), 245-270. <https://doi.org/10.1177/0272431697017003001>
- Villani, D., Sorgente, A., Iannello, P., & Antonietti, A. (2019). The role of spirituality and religiosity in subjective well-being of individuals with different religious status. *Frontiers in psychology*, 10, 1525. <https://doi.org/10.3389/fpsyg.2019.01525>
- Wang, L., & Yao, J. (2020). Life satisfaction and social anxiety among left-behind children in rural China: The mediating role of loneliness. *Journal of Community Psychology*, 48(2), 258-266. <https://doi.org/10.1002/jcop.22252>
- Wilson, J. M., Colebaugh, C. A., Flowers, K. M., Meints, S. M., Edwards, R. R., & Schreiber, K. L. (2022). Social support and psychological distress among chronic pain patients: The mediating role of mindfulness. *Personality and Individual Differences*, 190, 111551. <https://doi.org/10.1016/j.paid.2022.111551>
- Wu, B., Liu, T., & Tian, B. (2023). How does social media use impact subjective well-being? Examining the suppressing role of Internet addiction and the moderating effect of digital skills. *Frontiers in Psychology*, 14, 1108692. <https://doi.org/10.3389/fpsyg.2023.1108692>
- Wu, X., Qi, J., & Zhen, R. (2021). Bullying victimization and adolescents' social anxiety: Roles of shame and self-esteem. *Child Indicators Research*, 14, 769-781. <https://doi.org/10.1007/s12187-020-09777-x>

- Yakup, I., & Çelik, E. (2020). Ergenlerde psikolojik sağlamlığın sosyal dışlanma, sosyal kaygı, cinsiyet ve sınıf düzeyi açısından incelenmesi. *OPUS International Journal of Society Researches*, *16*(27), 174-209. <https://doi.org/10.26466/opus.642037>
- Yang, Y., & Lu, X. (2022). Social anxiety and subjective quality of life among Chinese left-behind children: The mediating role of social support. *Frontiers in Psychology*, *13*, 836461. <https://doi.org/10.3389/fpsyg.2022.836461>
- Ye, B., Li, L., Wang, P., Wang, R., Liu, M., Wang, X., & Yang, Q. (2021). Social anxiety and subjective well-being among Chinese college students: A moderated mediation model. *Personality and Individual Differences*, *175*, 110680. <https://doi.org/10.1016/j.paid.2021.110680>
- Yen, J.-Y., Yen, C.-F., Chen, C.-S., Wang, P.-W., Chang, Y.-H., & Ko, C.-H. (2012). Social anxiety in online and real-life interaction and their associated factors. *Cyberpsychology, Behavior, and Social Networking*, *15*(1), 7-12. <https://doi.org/10.1089/cyber.2011.0015>
- Yıldırım, M., & Arslan, G. (2022). Exploring the associations between resilience, dispositional hope, preventive behaviours, subjective well-being, and psychological health among adults during early stage of COVID-19. *Current psychology*, *41*(8), 5712-5722. <https://doi.org/10.1007/s12144-020-01177-2>
- Yıldız, M. A., & Duy, B. (2014). Adaptation of the short-form of the UCLA loneliness scale (ULS-8) to Turkish for the adolescents. <https://doi.org/10.5350/DAJPN2014270302>
- Zafar, J., Malik, N. I., Atta, M., Makhdoom, I. F., Ullah, I., & Manzar, M. D. (2021). Loneliness may mediate the relationship between depression and the quality of life among elderly with mild cognitive impairment. *Psychogeriatrics*, *21*(5), 805-812. <https://doi.org/10.1111/psyg.12749>

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