The Mediating Role of Loneliness in the Relation Between Preference for Solitude, Social Competence, Self-Esteem and Depression in Emerging Adults*

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Article Info	ABSTRACT
	This study aims at testing the relation between emerging adults' preference for solitude, social competence, self-esteem on one side and depression on the other side with the mediating role of loneliness. The study group is composed of students that were studying at various faculties at state universities in Turkey in 2019-2020 Academic Year and determined by the easily convenience sampling. 508 students, 279 of whom were female and 229 of whom were male, participated in the study. Data collections tools used in the study are Beck Depression Scale, UCLA Loneliness Scale Short Form, Preference for Solitude Scale, Two-Dimensional Self-Esteem Scale and Perceived Social Competence Scale. The findings of the current study indicate that there is a positive association between depression and loneliness, whereas a negative relationship between loneliness and a tendency for solitude as well as between self-esteem and social competence. Furthermore, the current findings show that loneliness predicts the relation between emerging adults' preference for solitude, social competence, self-esteem and depression at a statistically significant level.

Beliren Yetişkinlerde Tek Başına Olmayı Tercih Etme, Sosyal Yetkinlik ve Benlik Saygısı ile Depresyon Arasındaki İlişkide Yalnızlığın Aracılığı

Makale Bilgileri	ÖZ
	Bu araştırmada beliren yetişkinlerde tek başına olmayı tercih etme, sosyal yetkinlik ve benlik saygısı ile depresyon arasındaki ilişki yalnızlık aracılığı ile sınanmıştır. Araştırmanın katılımcıları, 2019-2020 Eğitim-Öğretim yılı içerisinde Türkiye'de yer alan Devlet Üniversitelerinin çeşitli fakültelerinde öğrenim görmekte olan ve kolay ulaşılabilir örnekleme yöntemi ile belirlenen öğrencilerden oluşmaktadır. Araştırmaya 279'u kadın ve 229'u erkek olmak üzere toplam 508 kişi katılmıştır. Araştırmada Beck Depresyon Ölçeği (Beck vd., 1961), Ucla Yalnızlık Ölçeği Kısa Formu (Russel vd., 1978), Tek Başına Olmayı Tercih Etme Ölçeği (Burger, 1995), İki Boyutlu Benlik Saygısı Ölçeği (Tafarodi ve Swan, 2001) ve Algılanan Sosyal Yetkinlik Ölçeği (Anderson-Butcher vd., 2007) kullanılmıştır. Verilerin analizinde IBM SPSS Statistics 23 ve AMOS 23 kullanılmıştır. Araştırma depresyon ile yalnızlık arasında pozitif yönlü; yalnızlık ile tek başına olmayı tercih etme, benlik saygısı ve sosyal yetkinlik arasında ise negatif yönlü anlamlı ilişkiler belirlenmiştir. Ayrıca beliren yetişkinlerde tek başına olmayı tercih etme, sosyal yetkinlik ve benlik saygısı ile depresyon arasındaki ilişki yalnızlık aracılığı ile anlamlı bir şekilde sınandığı tespit edilmiştir.

Introduction

Ages 18 to 29 make up the developmental stage known as "emerging adulthood" (Arnett, 2014). The period of emerging adulthood might have positive and negative effects on individuals as is the case with all other developmental stages. Moreover, emerging adulthood is also influenced by some negative reflections of the adolescence, the period that comes right before emerging adulthood. During adolescence, physical changes (a rapid increase in body weight, changes in the body shape) generally results in the sense of being different and not being satisfied with the "new" appearance, which in turn leads individuals to avoid social relations (Domagała-Krecioch & Majerek, 2013). In that sense, loneliness is a potential case that often appears in the period of emerging adulthood (Arnett, 2004).

Loneliness has various negative impacts not only on individuals but also on the society created by individuals, and in general terms, it badly influences individuals' level of well-being and general state of health (Hawkley & Cacciopo, 2010; Holt-Lunstad et al., 2015), while it affects the economic structure of the society in a bad way. Concordantly, Jeffrey et al., (2017) state that loneliness creates economic difficulties in the society as a result of its bad effect on the health of working individuals. Although there are various studies that seek to understand these effects better, the review of recent literature shows that there are few studies that focus on loneliness, which is a common but unwanted phenomenon among many people (Barreto et al., 2021; Jo Cox Commission, 2017; Weiss, 1973).

Peplau and Perlman (1981) define loneliness as an inconsistency between current and desired social relations, while it seems possible to express that it is about the level of social relations that individuals perceive. In fact, two people who have similar numbers of social relations but desire to have different levels of social relations might feel lonely at different levels (Barreto et al., 2021). A wide number of existing research in the broader literature have attempted to uncover the risk factors of loneliness besides other concepts that are related to it. Loneliness can cause long-term mental and physical health problems in some people (Cacioppo et al., 2015, Van Dulmen & Goossens, 2013). The studies that focus on the possible risks of loneliness show that loneliness has some risks, or at least it is related to these risks (Dahlberg et al., 2021). Identifying the concepts that are related to loneliness and understanding its risk factors are of vital importance to develop effective interventions in order to diminish these risks (Ladd & Ettekal, 2013).

For a long time, researchers have been investigating whether loneliness is associated with depression or not, and if it is, to what extent it is related to depression (Weeks et al., 1980). Even though loneliness and depression have some similarities, there are certain differences between these two concepts. Weiss (1973) states that loneliness is about the motive to adapt to a new situation or to get rid of this situation, whereas depression means that individuals surrender to this situation in case of depression. Loneliness is a cognitive and emotional reaction that individuals produce when they cannot meet their social needs, they lack social resources or have abnormal resources, and especially when they do not have close relations (Rotenberg & Hymel, 1999; Weiss, 1973). On the other hand, depression is associated with insufficient or dysfunctional social relations besides many other concepts. According to Weeks, Michela, Peplau and Bragg (1980), there are some empirical proofs which show that loneliness and depression mostly go hand in hand. They go on saying that there are relatively fewer studies on loneliness because it is similar to depressive behaviours.

Studies on loneliness and depression emphasize that these two concepts are partially different from each other, but they are related to each other after all. Ladd and Ettekal (2013) state that the preliminary levels of loneliness and depressive symptoms have a positive and medium-level relation between them. In other words, when individuals' loneliness decreases, the depressive symptoms that they display are expected to decrease, as well.

Although loneliness and depression are addressed on the basis of cause and effect relationship, there are some study findings that defend an opposite view to that. Qualter, et al., (2010) claim that loneliness is related to depression, but this relation cannot be explained through causal inferences. In particular, Weeks et al., (1980) carried out a study on loneliness and depression in which they found out that loneliness does not cause depression, and similarly, depression does not cause loneliness. Even though there is a not a certain causal relationship between these two concepts, it is generally acknowledged that loneliness and depression are related to each other, and they share some common causes. For instance, difficult life experiences may be triggering both loneliness and depression. Moreover, although researchers have not identified a clear relation between loneliness and depression, a third variable might have an effect on the relation between these two concepts. Weeks et al., (1980) indicate that one of these variables is preference for solitude for a long time.

Literature review on preference for solitude shows that there are many definitions. In general, it is associated with social withdrawal, shyness (Averill & Sundararajan, 2014), avoiding social interaction (Burger, 1995) and physical-psychological withdrawal (Knafo, 2012). As it includes the sense of social isolation in definitional terms, some researchers claim that it is similar to loneliness. However, previous studies reveal that although aloneness, solitude and loneliness are related to each other, they are different from each other (Galanaki, 2004). Solitude is associated with social isolation, but there are some studies in the literature that reveal benefits of preference for solitude when compared to loneliness. For example, Long et al., (2003) mention that individuals who prefer solitude have more positive experiences when they use it for their private life, relaxation, self-reflection, creative endeavours and emotion-regulation. Likewise, there are some other researchers who underline that solitude has some potential developmental benefits such as a context for self-discovery (Goossens, 2014), creativity (Csikszentmihalyi, 1996) and self-renewal (Korpela & Staats, 2014). In that sense, Larson (1990) emphasizes the fact that when people prefer solitude, they tend to evaluate themselves, refresh themselves emotionally and improve their current emotional state. Similarly, Burger (1995) indicates that individuals can produce effective solutions for their problems when they prefer solitude and go into their problems. Therefore, preference for solitude is a normative life experience (Larson, 1990). Moreover, previous studies show that people who prefer loneliness instead of solitude and affinity are associated with depression, unsatisfactory inter-personal relations, a low level of social competence and social exclusion (Burger, 1995; Corsano et al., 2006; Goossens, 2014; Rockhill et al., 2009; Wang et al., 2013). Weeks et al., (1980) state that another variable that has an impact on the relation between loneliness and depression is the decrease in individuals' level of social competence.

Social competency is described as the ability to generate satisfying social interactions including the steps of starting, continuing and ending inter-personal relations easily and successfully (Neziek, 2001), and it encourages individuals to gain social support groups, establish and promote friendships (Hawley et al., 2002). In that regard, it could be stated that individuals with high social competence level have a rich network of social relations, and they are less likely to be lonely. It is a desired case that individuals acquire the skill of social competence, which refers to being in social interaction with other people, during adolescence, which is an important developmental period. Zigler and Phillips (1961) suggest that social competence is composed of social, emotional and cognitive elements, and it affects individuals' developmental level. They also emphasize that individuals with low social competence are in the risk group in terms of some pathologies, and they are more likely to be hospitalized for treatment. Individuals with a low level of social competence are at a greater risk in terms of depression, social phobia, low self-esteem and loneliness (Jenkins et al., 2002; Muris, 2002). Moreover, those who have lower levels of social skills display more depressive symptoms (Jones et al., 1983), and those who are in depression feel less competent socially (Gable & Shean, 2000). In the light of the aforementioned findings, it seems possible to state that there is a relation between the skill

of social competence and depression.

According to a study carried out by Most et al., (2012), Loneliness and social competence have a considerable negative association. In other words, individuals with low social competence feel lonelier. Considering the fact that displaying low social competence influences social relations in a negative way, individuals who lack this skill are expected to be more likely to feel rejected and lonely. In line with this view, Parker and Asher (1993) emphasize that a low level of social competence is an indicator of loneliness. Weeks et al., (1980) indicate that self-esteem is another variable that affects the relation between loneliness and depression.

Self-esteem is a strong determinant of general happiness (Cheng & Furnham, 2003). Moreover, a low self-esteem is associated with loneliness, anxiety, depression and many other psychopathologies (Salmela-Aro & Nurmi, 1996; Tzonichaki, et al., 1998). Likewise, Ouellet and Joshi (1986) indicate that there is a relation between loneliness and self-esteem as well as between loneliness and depression. They also discovered a significant correlation between depression and self-esteem. Furthermore, individuals who have the symptoms of a low-level of loneliness, self-esteem, and depression experience more negative feelings (Yao & Zhong 2014; Lin et al., 2018). According to Tzonichaki and Kleftaras (2002), there is a significant relation between self-esteem and loneliness, and they underline that the higher the level of self-esteem is, the lower the level of loneliness is.

On the basis of the finding about self-esteem, it seems possible to state that self-esteem is a concept that is associated with loneliness and depression. Even though studies on self-esteem reveal various variables that are associated with the self, there is no clear finding on the interaction of these variables with each other. Identifying the relations and interactions between these concepts, all of which are important in terms of individuals' mental health, is significant to guide the studies on protecting people's mental health.

A review of clinical interventions shows that improving social skills results in an increase in social competence and self-esteem, which in turn decreases the symptoms of depression (Williams & Galliher, 2006). In this sense, such interventions increase individuals' self-esteem and social competence, and decrease their loneliness; they aim to diminish individuals' level of depression in this way. Identifying the causes and related terms of loneliness, which has a relation with many psychopathologies, is of vital importance to understand why some people are lonely, to determine the effects of this loneliness, and to decide on what to do to alleviate the effects in question (Qualter et al., 2015).

To sum up, literature review shows that individuals' skills of social competence, level of self-esteem and being alone are associated with loneliness, and these concepts are related to depression. In the light of these findings, the main goal of this study is to examine the role of loneliness as a mediator in the relationship between emerging adults' preference for solitude, social competence, self-esteem and depression. In line with this general study purpose, the research questions are as below:

- Is there a statistically significant relationship between depression, loneliness, preference for solitude, social competence and self-esteem?
- Do preference for solitude, social competence and self-esteem predict depression with the mediating effect of loneliness in emerging adults?

Method

Study Design

The current study is a two-dimensional descriptive study that aims to test the relation between emerging adults' preference for solitude, social competence and two-dimensional self-esteem (self-liking and self-competence) and depression with the mediating effect of loneliness. In this line, the study has a correlational research design. Correlational studies adopt a research method to investigate the effects of two or more variables on each other (Fraenkel et al., 2012).

Study Group

The research group is made up of university students from various faculties in state universities in Turkey in 2019-2020 Academic Year, and the participants were determined via convenience sampling method. The ages of the participants varied between 20 and 29, and there were 508 participants in total, while 279 of them were female, while 229 were male. The average of participants' age was 21.29 (Ss= 2.78). 30.3% of the participant students were in their first year at university, 27.3 of them were in their second year, 21.5% of them were in their third year and 20.9 of them were in their fourth year.

Ethic

This article was found ethically appropriate with the decision number 08/05 of the scientific research and publication ethics committee of Atatürk University of Applied Sciences on 05.05.2020.

Data Collection Tools

Beck Depression Scale

Beck Depression Scale is a scale originally created by Beck et al.(1961) and Hisli (1989) adapted the scale to the Turkish culture. The scale has 21 items in total, with scores ranging from 0 to 3.Therefore, the final score to be received in the scale can be a number between 0 and 63. Receiving a high score from the scale is related to a high level of depression. Validity and reliability analysis regarding the original scale shows that Cronbach Alpha coefficient was .92, whereas the Cronbach Alpha coefficient was determined to be .80 while adapting the inventory.

Ucla Loneliness Scale Short Form

Russel and others (1978) developed Ucla Loneliness Scale and Doğan et al., (2011) adapted the scale to Turkish culture. The short form of the scale consists of 8 items. Furthermore, because the scale is a 4-point Likert type, the scores that can be obtained range from 8 to 32. A high score in the scale refers to a high level in loneliness. The original scale had an internal consistency coefficientof.96, whereas the test-retest coefficient was.94. Cronbach Alpha coefficient was discovered to be .72 while adapting the scale.

Preference for Solitude Scale

Burger(1995) created the Preference for Solitude Scale, which Erpay and Atik adapted for Turkish culture (2019). Preference for Solitude Scale is composed of 12 items, and it has a one-dimensional structure. The scale's values vary between 0 and 12, with a high score suggesting a strong preference for solitude. The original scale's coefficients of internal consistency were found to be.73 and.70 in two different groups. It was found out that the coefficient of test-retest reliability was .72. The analysis in the adaption of the scale resulted in internal consistency coefficient of .77.

Two-Dimensional Self-Esteem Scale

Two-Dimensional Self-Esteem Scale was developed by Tafarodi and Swan (2001), and was adapted

into Turkish culture by Doğan (2011). Two-dimensional Self-Esteem Scale is made up of two dimensions, which are self-competence and self-liking. Moreover, the scale consisting 16 items is a 5-point Likert type scale. The coefficient of Cronbach's alpha in its original form was discovered to be .83 in females and .82 in males for the dimension of "self-competence." When it comes to the dimension of "self-liking", it was revealed that Cronbach alpha coefficient was .90 both for females and males. For "self-liking," the test-retest reliability coefficient was discovered to be .75, and for "self-competence," it was.78. The coefficients of Cronbach Alpha internal consistency in terms of the sub-dimensions of self-competence and self-liking were discovered to be.74 for the sub-dimension of self-competence and.83 for the sub-dimension of self-liking at the conclusion of the analysis used to modify the scale. The coefficient of test-retest reliability obtained was determined to be .72 for both sub-dimensions.

Perceived Social Competence Scale

Perceived Social Competence Scale was created by Anderson et al., (2007), and it was adapted into Turkish culture by Sarıçam and others (2013). The scale is composed of 6 items, and it has a one-factor structure. It is a 5-point Likert scale. The scores obtained from the scale vary between 6 and 30, and a high score means social competence is high. When the scale was adapted into Turkish culture, the coefficient of Cronbach Alpha internal consistency was determined to be .80. Also, the scale was implemented with 88 students among the study group twice and for test-retest reliability an interval of 21 days was used. The correlation coefficient between the two implementations was found to be r= .69 (Sarıçam et al., 2013).

Procedure

The measurement tools of the current study were implemented with individuals among the students from Faculty of Education and Faculty of Arts and Sciences at Atatürk University and Erzincan Binali Yıldırım University in 2019-2020 Academic Year. The researchers could get data from 521 participants at first. According to Tabachnick and Fidel (2007), the data that fall out of the interval with a z score ± 3.3 (p < .001) are accepted to be univariate outliers. Therefore, univariate outlier analysis was conducted for the gathered data, and replies of 11 participants that fall out of ±3.29 were removed from the data set. On the other hand, multiple outliers analysis was conducted via Mahalonobis distance value, and 2 more replies identified at the end of this analysis were removed from the data set. Multi-collinearity was analysed via CI (condition index), VIF (variance inflation factor) and tolerance values. Multiple collinearity does not exist when CI value is below 30, VIF value is below 10 and tolerance value is equal to or above .10 (Hair et al., 1998). The conducted analysis shows that all the values are within the specified intervals (Tolerance=.47-.72; VIF= 1.39-2.13) in the current study. In addition to that, the data set was analysed in terms of coefficients of skewness and kurtosis for the assumption of normality. The analysis shows that all the variables in the current study are within the interval of ±1 (see Table 1). To sum up, data gathered from 508 students were included in the analysis as a result of the necessary assumptions.

Data Analysis

Descriptive statistics were assigned to the variables, and the Pearson Product-Moment Correlation Coefficient was employed to find out the correlations between them. Finally, the mediating role of loneliness in the link between tendency for solitude, social competence, two-dimensional self-esteem on one side and depression on the other side was tested via structural equation modelling. The analysis was conducted by using IBM SPSS Statistics 23.00 and AMOS 23. 00.

Findings

Descriptive Statistics and Correlations

Table 1 below shows the descriptive statistics as well as coefficients of skewness and kurtosis belonging to the dependent and independent variables in the current study.

Table 1. *Statistics Regarding the Scores That the Participants Obtained from the Measurement Tools*

Variables	N	$\bar{X}$	Ss	Min.	Max.	Skewness	Kurtosis
Depression	508	17.14	8.68	1	48	.424	-.045
Loneliness	508	12.37	3.78	8	21	.452	-.975
Social Competence	508	25.42	3.87	10	30	-.807	.671
Self-Liking	508	29.66	6.13	9	40	-.235	-.485
Self-Competence	508	26.31	3.84	12	38	-.314	-.575
Solitude	508	8.34	2.64	2	12	-.183	-.722

As is clear in Table 1, skewness and kurtosis value for each scale is within the border of ±1. Data set has a normal distribution (Pituch & Stevens, 2016)

Findings Regarding the Relations Between the Variables in the Study

Before testing the measurement model and structural model, correlational relations between the variables were examined, and the results are given in Table 2.

Table 2. *Pearson Correlation Matrix Belonging to the Relations Between the Variables (n= 508)*

Variables	1	2	3	4	5	6
1. Depression	-					
2. Loneliness	.519[*]	-				
3. Social Competence	-.388[*]	-.627[*]	-			
4. Self-Liking	-.605[*]	-.554[*]	.459[*]	-		
5. Self-Competence	-.402[*]	-.502[*]	.386[*]	.547[*]	-	
6. Solitude	-.458[*]	-.480[*]	.422[*]	.386[*]	.378[*]	-

p<0.01

As is clear in Table 2, the variables included in the depression model are associated with each other at a statistically significant medium-level in positive and negative directions. Depression is

associated with loneliness in a statistically significant positive way [$r=.519$, $p<.01$], social competence [$r=-.388$, $p<.01$], self-liking [$r=-.605$, $p<.01$], self-competence [$r=-.402$, $p<.01$] and preference for solitude [$r=.-.458$, $p<.01$] at a statistically significant level in the negative direction.

Measurement Model

The measurement model has good model fit ($\chi2 = 100.99$, df = 44, $\chi2$/df = 2.295, p < .001, RMSEA = .051 [90% confidence interval (CI) = .038-.064], SRMR = .032, CFI = .98, TLI = .97). The current findings show that the measurement model has a sufficient value of model fit to test the depression model. Measurement model is given in Figure 1.
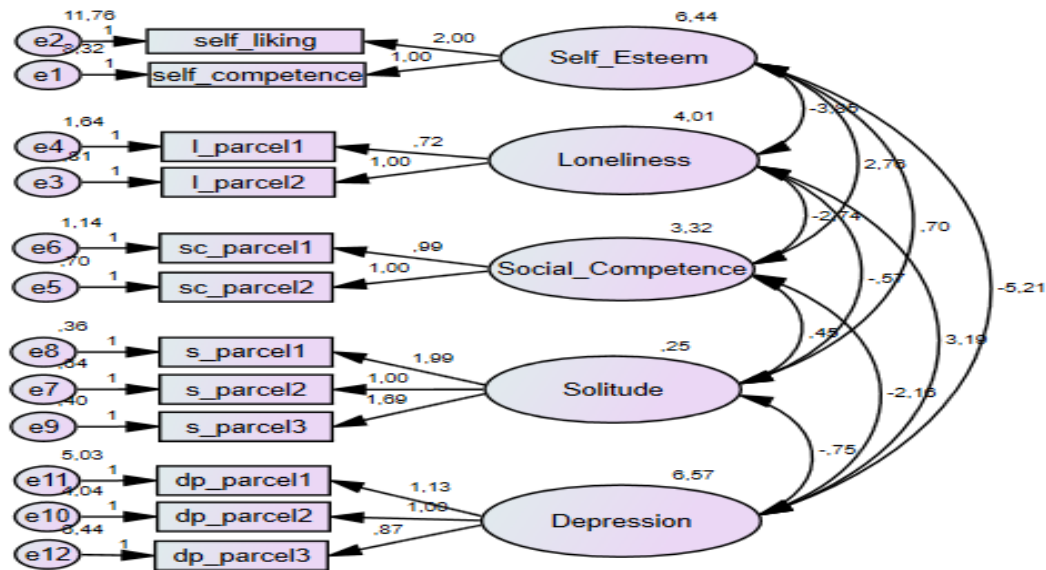

Figure 1. Measurement model

Structural Models

After testing the measurement model and seeing that values of model fit are good, structural model which identifies the relations between the latent variables in theoretical terms is tested. The results are given in Figure 2.
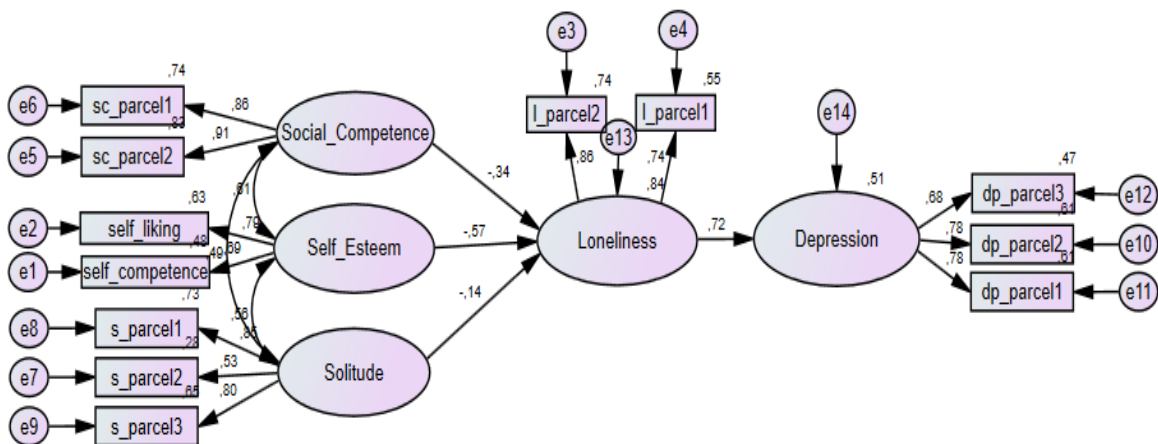

Figure 2. Structural model

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As is clear in Figure 2, model fit values regarding the model are as below; χ2 = 190.30, df = 47, χ2/df = 4.049, p < .001, RMSEA = .078 [90% confidence interval (CI) = .066-.089], SRMR = .051, CFI = .95, TLI = .93. As is seen in Figure 2, as some variables other than loneliness, which is one of the dependent variables in the model, might affect the relation between the exogenous variables (social competence, self-esteem and solitude) in the model, error co-variance was added to the exogenous variables. The statistical significance of the relations between the latent variables in the depression model were interpreted via *t* values and standardized beta coefficients. The related results are given in Table 3.

Table 3. *Standardized Values and t Values Regarding the Direct Effects in the Depression Model*

Structural Relations			β	S.E	CR (t)
Social Competence	→	Loneliness	-.34	.042	-6.42**
Self Esteem	→	Loneliness	-.57	.040	-7.41**
Solitude	→	Loneliness	-.14	.083	-2.78*
Loneliness	→	Depression	.72	.114	12.50**

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

Table 3 shows that social competence (*β*= -.34, *t*= 6.42, *p*<.01), self-esteem (*β*= -.57, *t*=-7.41, *p*<.01) and preference for solitude (*β*= -.14, *t*=-2.78, *p*<.05) predict the variable of loneliness at a statistically significant level. When social competence, self-esteem and preference for solitude come together, they account for 84% of the variance belonging to loneliness. Loneliness predicts depression (*β*= .72, *t*= 12.50, *p*<.01) at a statistically significant level.

The current study focuses on the indirect (mediating) effects of variables on loneliness and depression besides the direct effects. In this context, the study examines the effect of social competence, self-esteem and preference for solitude on depression with the mediating effect of loneliness. One way to estimate the significance of mediating effects is to make use of via Bootstrapping (Preacher & Hayes, 2004). In this direction, the current study takes the advantage of Preacher and Hayes's (2004; 2008) method of Bootstrapping, which has been frequently used in recent years, to test the mediating effect. For that purpose, 2000 Bootstrapping were used within the confidence interval of 95% to calculate the indirect effects and standard errors (Table 4). Having null among the calculated confidence intervals shows that indirect effects are statistically significant.

Table 4. *Results of Bootstrapping Test Regarding Mediating Effects*

Structural Relations	B	%95 GPA		S.E (β)
		Lower	Upper	
Social competence-> Loneliness -->Depression	-0.394	-0.513	-0.289	-0.247**
Self-esteem--> Loneliness -->Depression	-0.241	-0.320	-0.174	-0.409**
Solitude--> Loneliness -->Depression	-0.331	-0.564	-0.130	-0.099**

**p<.01,

As is clear in Table 4, social competence (β= .25, %95 GA= -.513, -.289, p<.01), self-esteem (β= .41, %95 GA= -.320, -.174, p<.01) and preference for solitude (β= .10, %95 GA= -.564, -.130, p<.01) predict depression with the mediating effect of loneliness at a statistically significant level. In other words, social competence, self-esteem and preference for solitude have an indirect effect on depression. When all the variables' direct and indirect effects in the model come together, they account for 51% of the variance regarding the depression model.

Discussion

The results regarding the findings are discussed under two main headings as direct effects and mediating effects.

Discussion on the Direct Effects in the Model

The main aim is to investigate loneliness as a mediator in the relationship between self-esteem, social competence, preference for solitude and depression in university students. Findings from the research firstly reveal the relationship between depression and loneliness. In addition, in line with another aim of the research, its mediating role in the relationship between loneliness, depression and self-esteem, social competence, and preference for solitude was determined to be significant. Considering the direct effects of this study, a positive relationship between loneliness and depression. A negative relationship was found between self-esteem, social competence, preference for solitude and loneliness. These results indicate similar results with previous studies of similar nature.

Considering the first result of direct effects, the relationships between social competence and loneliness also support the previous outcomes. Lee et al., (2019) found a negative predictive effect between personal social competencies and loneliness. Similarly, in another study carried out on middle school students in China, they found that social competence negatively predicted loneliness (Zhang et al., 2014). Further, some outcomes also revealed that, unlike social competence, social isolation and social exclusion significantly predicted loneliness positively (Matthews et al., & Arseneault, 2016; Vanhalst et al., 2015; Watson & Nesdale, 2012).

The obtained finding was also examined within the theoretical framework in addition to the related studies. In social learning theory, a number of internal and external factors are seen as important in an individual's behavior. These factors are decisive in the formation of competence expectations. In this sense, the expectation of competence defines the belief about a person's ability to perform a certain behavior (Bandura, 1977b). A person's high expectation of competence in a relationship with a friend leads to a positive effect on the expectation of competence in other social relationships (Bandura, 1977). Therefore, individuals with low expectation of competence may have a low level of social competence expectation in friendship and social relations in general. As a result, it can be stated that the positive effect of low level of social competence on loneliness is an expected result.

Additionally, the results obtained between self-esteem and loneliness, another result of direct effects, are consistent with previous results. For instance, Ishaq et al., (2017) uncovered a strong negative correlation between self-esteem and loneliness in a study they conducted on university students. Apart from this, there are other studies that focus on the relationships between self-esteem and loneliness and support this research result (Iranmanesh et al., 2019; Shi et al., 2017; Varghese & Pistole, 2017). Eysenck and Wilson (1998) claim that those who have high self-esteem tend to have confidence in their abilities. These people see themselves as valuable and useful individuals and believe they are liked by others. This situation also facilitates interpersonal relations and reduces the possibility of the individual being alone. Therefore, the negative predictive effect of self-esteem on loneliness in the research results was an expected result.

The relationship between loneliness and solitude, which is another result of the direct effects in this study, also agrees with findings of previous studies. To give an example, in a study comparing French and Dutch-speaking students, a relationship was found between preference for solitude and loneliness in both groups (Danneel et al., 2018). In addition, Toyami and Sato (2015) found similar results in their research. Solitude, as a personal choice, is also considered a positive action in the literature (Palgi et al., 2021). In terms of the related idea of loneliness, solitude does not always imply loneliness, as loneliness is the result of a gap between one's need for more social engagement and one's actual social interaction (Peplau & Perlman, 1982). This situation helps to explain the reason for the negative relationship between solitude and loneliness in the research.

In the last finding regarding direct effects, loneliness was revealed to play an important role in predicting depression. In addition, the results of the relationships between these two variables are supported by previous research. Erzen and Çikrikci (2018) carried out a meta-analysis study including the relationships between loneliness and depression and concluded that loneliness is an important variable that predicts depression. Similarly, there are other results in previous studies that support the results in this study (Chang et al., 2015; Holvast, et al., 2015; Yadegarfard et al., 2013). The most important factor that distinguishes the phenomenon of loneliness from being alone in a social environment is that loneliness is perceived as an undesirable situation by the individual and negative feelings accompany the social isolation process (van Winkel et al., 2017). From a theoretical point of view, loneliness is seen as a predisposition to depression and anxiety (Singh & Misra, 2009). When considered from this point of view, the findings in the research results are expected.

Discussion on the Mediation Effects in the Model

In the title above, direct effects between variables were discussed based on the results of this research. Apart from this, when the results are examined, there are indirect effects between social competence, self-esteem, solitude, and depression, which appear with the mediating effect of the loneliness variable. In this study, social competence, self-esteem, and solitude indirectly affected the level of depression university students through loneliness. Among previous studies, no studies were found in which social competence, self-esteem, and solitude explained depression through loneliness. Considering the findings, the mediating effect of loneliness is important in terms of the literature.

In this study, direct relationships were revealed between self-esteem, social competence, solitude, depression variables, and loneliness, as discussed above. These findings help explain the reason for the mediating effect of loneliness. In addition, when the literature was examined, a review of major studies in this area confirmed that there is a strong association between depression and the variables of social competence (Gable & Shean, 2000; Whitton et al., 2008), self-esteem (Orth & Robins, 2013; Sowislo & Orth, 2013), and solitude (Elmer et al., 2020; Zhou & Liu, 2016).

In addition to indirect studies, the mediating effect of loneliness is supported by previous studies. Previous studies have shown that loneliness has a significant mediating role with different variables. In a study conducted on the subject, the mediating effect of loneliness in the relationship between depression, anxiety and social skills was examined (Moeller & Seehuus, 2019). According to the results, loneliness acts as a mediator in regulating the association between depression, anxiety, and social skills. In another study, it was found that the model related to the mediation of loneliness between depression and low social preference gave significant results (Fontaine et al., 2009). In a different study examining the mediator role of loneliness in the association between depression and social connectedness, it was determined that loneliness has a mediator effect between depression and social connectedness (Park et al., 2013). According to another study investigating the mediating effect of loneliness on the relationship between self-esteem and depression, which constitutes the individual's self-perception, loneliness was discovered to play an important mediating role in the relationship

between self-esteem and depression (Uba et al., 2012) and in the association between self-efficacy, self-esteem, and spiritual well-being and depression (Zarnaghash et al., 2018). Consequently, these results, it may be considered that social competence, self-esteem, and solitude triggers loneliness, and loneliness triggers the depressive symptom.

Limitations and Recommendations

The current study suffers from a few limitations. Generalization ability is one of these limitations. 508 university students in total were involved in the study. According to the findings, in the 90% confidence interval of 272, this sampling size is over sufficient central limit to generalize to a larger population (Kline, 2011). Students from diverse departments of the Faculty of Education and Literature at two state universities make up the sample group. Accordingly, based on the maximum sampling strategy, it may be suitable to carry out similar studies with students from various faculties and universities in order to ensure the research's generalizability. Furthermore, a replication of the study with students from different locations would be beneficial in order to investigate the socio-cultural backgrounds of the students in the sample group as well as the impact of regional conditions. The study attached importance to an equitable distribution of students at various grade levels. Finally, this research was implemented using a correlational research design, which is a quantitative research method. With its functionality, the study has suffered a few limitations in terms of establishing a cause-effect relationship due to the fact that it is a correlations study. As a result, investigations based on experimental design might be beneficial.

Some recommendations were offered for both researchers and practitioners based on the findings of the study. This research was conducted with university students. Considering developmental factors, it is important to conduct this study in (different) groups. Especially in some studies in the literature, it has been found that risk factors for depression differ according to age and developmental period (Birmaher et al., 1996). Furthermore, the relationship between variables could be examined by observing various study groups and utilizing quantitative data gathering techniques such as interviews. There are numerous findings in the literature that link depression and loneliness (Chang et al.,2015; Erzen & İkrikci, 2018; Yadegarfard et al., 2013). However, in this study, loneliness was found as a variable that indirectly affects depression. Therefore, the mediating effect of loneliness should be tested with the anxiety and stress variables, which have a clear relationship with depression.

Conclusion

The findings indicated that the mediator role of loneliness was found in the relationship between social competence, self-esteem, solitude, and depression. Considering the direct effects of this study, the variables related to social competence, self-esteem, and solitude were found to be negatively correlated with the feeling of loneliness. These results agree well with previous results. Overall, the findings allowed for a better understanding of the structural relationships between the research variables.

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GENİŞLETİLMİŞ ÖZET

Giriş: Yalnızlık, sadece bireyler üzerinde değil, bireylerin oluşturduğu toplum üzerinde de çeşitli olumsuz etkilere sahiptir ve genel anlamda, bireylerin iyi oluş düzeylerini ve genel sağlık durumlarını kötü yönde etkilemektedir (Hawkley ve Cacciopo, 2010; Holt-Lunstad vd., 2015). Araştırmacılar uzun bir süredir yalnızlığın depresyonla ilişkili olup olmadığını, varsa ne ölçüde depresyonla ilişkili olduğunu araştırmaktadır (Weeks vd., 1980). Yalnızlık ve depresyon bazı benzerlikler taşısa da bu iki kavram arasında belirli farklılıklar vardır. Yalnızlık ve depresyon üzerine yapılan araştırmalar, bu iki kavramın birbirinden kısmen farklı olduğunu ancak sonuçta birbiriyle ilişkili olduğunu vurgulamaktadır. Ladd ve Ettekil (2013), yalnızlık ve depresif belirtilerinin arasında pozitif ve orta düzeyde bir ilişkinin olduğunu belirtmektedir. Ayrıca, araştırmacılar yalnızlık ve depresyon arasında net bir ilişki tespit edememiş olsalar da, bu iki kavram arasındaki ilişkide üçüncü bir değişkenin etkisi olabileceğini vurgulamaktadır. Weeks ve diğerleri (1980) bu değişkenlerden birinin uzun süre yalnız kalma tercihi olduğunu belirtmektedir. Ayrıca yalnızlık ve depresyon arasındaki ilişkide etkili olan bir diğer değişkenin, bireylerin sosyal yeterlilik düzeylerindeki azalma olduğunu belirtmektedir. Benlik saygısı, genel mutluluğun güçlü bir belirleyicisidir (Cheng ve Furnham, 2003). Ayrıca, düşük benlik saygısı yalnızlık, kaygı, depresyon ve diğer birçok psikopatoloji ile ilişkilidir (Salmela-Aro ve Nurmi, 1996; Tzonichaki vd., 1998). Özetle alanyazın taraması, bireylerin sosyal yeterlilik becerilerinin, benlik saygısı düzeylerinin ve yalnız kalmanın yalnızlık ile ilişkili olduğunu ve bu kavramların depresyon ile ilişkili olduğunu göstermektedir. Bu bulgular ışığında bu çalışmanın temel amacı, beliren yetişkinlerin yalnızlık tercihi, sosyal yeterlilik, benlik saygısı ve depresyon arasındaki ilişkide yalnızlığın aracı olarak rolünü incelemektir.

Amaç ve Yöntem: Bu çalışma, beliren yetişkinlerin tek başına olma tercihi, sosyal yeterlilik ve iki boyutlu benlik saygısı (kendini beğenme ve öz yeterlilik) ile depresyon arasındaki ilişkide yalnızlığın aracı etkisini test etmeyi amaçlayan ilişkisel bir çalışmadır. Bu doğrultuda çalışma korelasyonel araştırma desenine sahiptir. Korelasyonel araştırmalar, iki veya daha fazla değişkenin birbirleri üzerindeki etkilerini araştırmak için kullanılmaktadır (Fraenkel vd., 2012). Araştırma grubunu 2019-2020 Eğitim-Öğretim yılında Türkiye'deki devlet üniversitelerinin çeşitli fakültelerinde öğrenim gören üniversite öğrencileri oluşturmuş ve katılımcılar kolayda örnekleme yöntemi ile belirlenmiştir. Yaşları 20 ile 29 arasında değişen katılımcıların 279'u kadın, 229'u erkek olmak üzere toplam 508 katılımcı yer aldı. Katılımcıların yaş ortalaması 21,29'dur (Ss= 2,78). Katılımcı öğrencilerin %30,3'ü üniversite birinci sınıfta, 27,3'ü ikinci sınıfta, %21,5'i üçüncü sınıfta ve 20,9'u dördüncü sınıftadır.

Bulgular: Depresyon modelinde yer alan değişkenler birbirleriyle pozitif ve negatif yönde istatistiksel olarak anlamlı orta düzeyde ilişkilidir. Depresyon, yalnızlık [r=.519, p<.01], sosyal yeterlilik [r=-.388, p<.01], kendini beğenme [r=-.605, p< .01], öz yeterlilik [r=-.402, p<.01] ve tek başına olmayı tercih etme [r=-.458, p<.01] istatistiksel olarak negatif yönde anlamlı düzeydedir. Ölçüm modeli iyi model uyumuna sahiptir (χ^2 = 100,99, df = 44, χ^2/df = 2,295, p < ,001, RMSEA = ,051 [%90 güven aralığı (CI) = ,038-,064], SRMR = . 032, CFI = .98, TLI = .97). Modele ilişkin model uyum değerleri aşağıdaki gibidir; χ^2 = 190,30, df = 47, χ^2/df = 4,049, p < ,001, RMSEA = ,078 [%90 güven aralığı (CI) = ,066-,089], SRMR = ,051, CFI = ,95, TLI = .93. Şekil 2'de görüldüğü gibi modeldeki bağımlı değişkenlerden yalnızlık dışındaki bazı değişkenler modeldeki dışsal değişkenler (sosyal yeterlilik, benlik saygısı ve yalnızlık) arasındaki ilişkiyi etkileyebileceğinden, hata eş- dışsal değişkenlere varyans eklenmiştir. Depresyon modelindeki gizil değişkenler arasındaki ilişkilerin istatistiksel anlamlılığı t değerleri ve standardize edilmiş beta katsayıları ile yorumlanmıştır. Sosyal yeterlilik (β= -.34, t= 6.42, p<.01), benlik saygısı (β= -.57, t=-7.41, p<.01) ve tek başına olmayı tercih etme (β= -.14, t=-2.78, p<.05) yalnızlık değişkenini istatistiksel olarak anlamlı düzeyde yordamaktadır. Sosyal yeterlilik, benlik saygısı ve tek başına olmayı tercih etme bir araya geldiğinde yalnızlığa ait varyansın %84'ünü açıklamaktadır. Yalnızlık depresyonu (β= .72, t= 12.50, p<.01) istatistiksel olarak anlamlı düzeyde yordamaktadır. Mevcut çalışma, değişkenlerin depresyon üzerindeki dolaylı (aracı) etkilerine odaklanmaktadır.

Sonuç ve Öneriler: Bulgular, sosyal yeterlilik, benlik saygısı, tek başına olmayı tercih etme ve depresyon arasındaki ilişkide yalnızlığın aracı rolünün bulunduğunu göstermiştir. Bu çalışmanın doğrudan etkileri göz önüne alındığında, sosyal yeterlilik, benlik saygısı ve tek başına olmayı tercih etme ile ilgili değişkenlerin yalnızlık duygusu ile negatif ilişkili olduğu bulunmuştur. Bu sonuçlar, önceki sonuçlarla oldukça uyumludur. Genel olarak, bulgular araştırma değişkenleri arasındaki yapısal ilişkilerin daha iyi anlaşılmasını sağlamıştır.

Araştırmanın bulgularına dayalı olarak hem araştırmacılara hem de uygulayıcılara bazı önerilerde bulunulmuştur. Bu araştırma üniversite öğrencileri ile yapılmıştır. Gelişimsel faktörler göz önünde bulundurulduğunda bu çalışmanın daha genç gruplarda yapılması önemlidir. Özellikle alanyazındaki bazı çalışmalarda depresyon risk faktörlerinin yaşa ve gelişim dönemine göre farklılık gösterdiği saptanmıştır (Birmaher vd., 1996). Ayrıca, değişkenler arasındaki ilişki, çeşitli çalışma grupları gözlemlenerek ve görüşme gibi nicel veri toplama tekniklerinden yararlanılarak incelenebilir. Alanyazında depresyon ve yalnızlığı ilişkilendiren çok sayıda bulgu vardır (Chang vd., 2015; Erzen ve İkrikci, 2018; Yadegarfard vd., 2013). Ancak bu çalışmada yalnızlık depresyonu dolaylı olarak etkileyen bir değişken olarak bulunmuştur. Bu nedenle yalnızlığın aracılık etkisinin, depresyon ile açık bir ilişkisi olan kaygı ve stres değişkenleri ile test edilmesi önerilmektedir.