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To cite this article: Osman Söner & Hazel Duru (2025) The exclusion experienced by adolescents plays a mediating role in the effect of their insecure attachments on their depressive experiences: a cross-sectional study among high school students in Turkey, *British Journal of Guidance & Counselling*, 53:4, 531-546, DOI: [10.1080/03069885.2024.2438169](https://doi.org/10.1080/03069885.2024.2438169)

To link to this article: <https://doi.org/10.1080/03069885.2024.2438169>



Published online: 07 May 2025.



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RESEARCH ARTICLE



The exclusion experienced by adolescents plays a mediating role in the effect of their insecure attachments on their depressive experiences: a cross-sectional study among high school students in Turkey

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ABSTRACT

This study examined the mediating role of ostracism in the relationship between adolescents' attachment styles and depression levels. The sample of this study consists of 621 adolescents (66.8% ($n = 415$) female and 33.2% ($n = 206$) male) living in one of the developed cities in Turkey. The results showed that ostracism partially mediates the relationship between secure, avoidant, and anxious-ambivalent attachment styles and depression. Based on the results of the study, we confirmed that ostracism partially mediates the relationship between secure attachment and depression. Secure attachment predicted ostracism and depression negatively; we found that ostracism predicted depression positively. Secondly, we found that avoidant attachment predicted depression and ostracism positively, and ostracism played a mediating role in this relationship. Finally, we concluded that anxious-ambivalent attachment positively explains ostracism and depression and that ostracism plays a mediating role in this relationship.

ARTICLE HISTORY

Received 8 January 2024
Revised 18 November 2024
Accepted 1 December 2024

KEYWORDS

attachment styles;
depression; ostracism; good
health; well-being

SUSTAINABLE



DEVELOPMENT GOALS

SDG 3: Good health and well-being

Introduction

Adolescence is a critical period in which changes are experienced in various developmental areas (cognitive, affective, social, and biological areas). This critical period and changes may increase the likelihood of adolescents experiencing symptoms of depression, and this may increase the risk of negative consequences, including functional impairment, anxiety, poor quality of life, suicidal thoughts, and clinical depression (Bertha & Balázs, 2013; Schwartz et al., 2012; Wesselhoeft et al., 2013). Individuals' need for belonging and social interaction are essential for positive and sustainable social relationships and physical and psychological well-being (Hammell, 2014). It is believed that negative experiences such as insecure attachment (Omidvar et al., 2014), and bullying (Yabko et al., 2008) negatively affect interpersonal relationships and that interpersonal relationships increase the likelihood of depression and progression (Hames et al., 2013).

The World Health Organization (WHO) defined depression as adolescence's most common mental health disorder (World Health Organization, 2012). It is important to understand depression in this age group, to examine its symptoms, and to determine preventive interventions and treatment strategies. Social relationships are essential for overall development (Hartup & Laursen, 1999), including

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adolescent and young adult mental health (Copeland et al., 2013). The security of attachment with parents early in life and later with peers from childhood to adulthood (Armsden & Greenberg, 1987) are essential characteristics of social relationships that may play a role in depression during adolescence and young adulthood (Rudolph et al., 2008). Considering the effects of ostracism and attachment styles on depression, it is seen that no study addresses these three critical variables together. For this reason, the fact that adolescence is a critical period for socialisation and developing close relationships makes it necessary to examine attachment, ostracism, and depression as an emotional result.

Ostracism and attachment

Ostracism is an essential experience that is ubiquitous and affects the individual. Ostracism causes the individual to experience social pain and provides activation in areas of the brain that are sensitive to physical pain (Eisenberger et al., 2003). Ostracism is defined as being ignored by others. It significantly negatively affects psychosocial health and puts safety in society at risk (Williams, 2007). In the experience of ostracism, individuals are faced with situations such as not receiving any reaction from others, not feeling a sense of belonging, and experiencing insignificance intensely (Case & Williams, 2004). Considering the importance of communicating with peers and being desired by others, especially during adolescence, it is crucial to address the concept of ostracism with individuals in this period. It is crucial to be included in a group during adolescence, so ostracism is associated with negative emotions. Isolation or inability to join a group brings various problematic behaviours and emotional problems (Santrock, 2012). It is considering that concepts such as “being included in a group, being desirable, receiving positive reactions from others” come to the fore, especially during adolescence, another important concept, “attachment”, comes to mind.

Attachment is a strong emotional bond. According to attachment theory, individuals are biologically predisposed to establish and maintain close emotional bonds with attachment figures (Bowlby, 1969). During infancy, one’s attachment figures are typically parents and other primary caregivers, and in adulthood, these are typically long-term romantic partners (Ainsworth, 1989; Hazan & Shaver, 1987). The transition from childhood to adolescence brings with it many changes that can affect the development of attachment in a variety of ways. Separation and individuation concerns arise in this period (Grotevant & Cooper, 2005). Attachment styles have been classified differently by different researchers. Ainsworth et al. (1978) identified certain anxious-ambivalent and avoidant relationship types to examine children’s behaviour in their experimental research.

According to attachment theory, there are four different attachment styles. These can be classified as secure and insecure attachments. Insecure attachment has three dimensions: preoccupied, avoidant, and fearful (Bartholomew & Horowitz, 1991; Bowlby, 1988; Ciechanowski et al., 2002). Individuals with secure childhood attachment expect others to be accepting and sensitive; he is comfortable with being close and autonomous. These individuals exhibit better strategies for establishing positive and supportive relationships than others who do not have a secure attachment (Simon & Baxter, 1993). They have a favourable view of themselves and the people in front of them, do not feel the fear of abandonment in their relationships, and do not bother to establish close relationships. On the other hand, individuals with an preoccupied attachment style have negative evaluations of themselves and positive evaluations of others. These individuals are not uncomfortable with intimacy in their relationships but have an intense fear of abandonment.

In avoidant/dismissive attachment, individuals have positive evaluations of themselves and are uncomfortable with intimacy; however, these individuals have negative perceptions of others. In the fearful attachment style, individuals evaluate both themselves and others negatively. Although individuals with this attachment style want to establish close relationships, they avoid establishing romantic relationships due to the fear of abandonment and intimacy (Bartholomew, 1990; Bartholomew & Horowitz, 1991). In fearful attachment, the desire and need for intimacy go together. These individuals may fear rejection (Eurelings-Bontekoe et al., 2003). Adolescence is a critical transition

period for attachment. Adolescents' mental health during this period affects their thoughts, feelings, self-confidence, and assessment skills. In this period, attachment is reconsidered, and a different approach to attachment is formed. A healthy attachment affects the child's mental health and social-emotional development and is the basis of his adult relationships (Akman et al., 2006). The number of studies in Turkey addressing the relationships between attachment styles and exclusion is limited. For example, Aktaş (2020) found a negatively significant relationship between parental attachment styles and levels of social exclusion in his study with adolescents. In this study, we examined attachment styles and the concept of ostracism, especially in adolescence, as risk factors that may be effective in developing depression in adolescents.

Depression and attachment

Depression is a crucial mood disorder that affects children and adolescents developmental areas (physical, emotional, social, and cognitive). It includes symptoms such as sadness and the inability to enjoy what has been done (Clark et al., 2012). Depressive mood, sleep problems, anger, alienation from people, feelings of worthlessness and guilt, weight gain, and thoughts of suicide and death are the prominent symptoms (DSM-5; American Psychiatric Association, 2013). While the prevalence rate of depression is 3% in childhood (before 13 years of age), it is 6% between the ages of 13–18 (Costello et al., 2006). The risk factors for depression include depression in the family and biological factors such as gender and adolescence. It consists of psychological factors such as insecure attachment, negative thinking styles, or contextual factors such as negative peer, family, and sibling relationships and low socio-economic level (Brenning et al., 2011; Clark et al., 2012). The consequences of depression are critical for children and young people's individual and social development. Substance abuse, suicide, poor academic performance, and poor relationships are some outcomes (Fergusson & Woodward, 2002; Keenan-Miller et al., 2007). Considering the devastating consequences of depression, it is necessary to determine both preventive interventions for depression and the risk factors for depression.

Adolescence is a critical period for examining changes in childhood attachment styles. Early attachment experiences significantly impact lifelong mental health and quality of life. An individual's attachment style can create permanent emotional, behavioural, and relational results (Shaver et al., 2017), reduce the individual's resistance to stressful life events, and affect the quality of their interpersonal relationships. As children mature, several developmental changes occur that change the nature of the bond between them and their caregivers. Children spend more time with their peers or want to spend time alone (Larson & Richards, 1991), the separation-individuation process with the caregiver begins, and autonomy is inevitable (Koepeke & Denissen, 2012). Longitudinal studies in relation to attachment show that attachment security is malleable and that attachment-related changes are more likely to occur during childhood and adolescence (Jones et al., 2018). It is critical to examine attachment styles in childhood and adolescence and their relationship with depressive symptoms, especially from a developmental perspective. Between the ages of 15 and 18, the rate of depression increases approximately six times (Hankin, 2006). In addition, some changes increase the risk of internalisation problems during childhood and adolescence. The transition from middle school to high school triggers the formation of stress (Goldstein et al., 2015). The focus on peer relations increases, children feel pressure to socialise, and accordingly, the need to adapt to peer expectations and established rules arises (Allen et al., 2005; Brown & Larson, 2009). While some children can easily cope with these difficulties, others experience difficulties and may experience depressive symptoms (Hankin et al., 2015). While secure attachment has a protective function that prevents the development of mental problems that negatively affect mental health (Colonnese et al., 2011; Groh et al., 2012; Madigan et al., 2013), on the other hand, insecure parental attachment leads to the development of depression and anxiety symptoms later on (Armsden et al., 1990; Cooper et al., 1998; Lee & Hankin, 2009; Overbeek et al., 2003; Sund & Wichstrøm, 2002). Insecure attachment brings along symptoms of depression and anxiety and

makes individuals more vulnerable to depression (Jinyao et al., 2012). Yolalan (2013) found in his study that there was a negative relationship between the depression level of adolescents and secure attachment and a positive relationship between the depression level and fearful and preoccupied attachment. In their study with adolescents, Düşünceli et al. (2022) concluded that secure attachment and anxious-ambivalent attachment styles significantly predicted the depression level of adolescents. Based on the studies conducted, we determined depression as the outcome variable in our research.

Ostracism and depression

Depression is a mental health problem usually due to more than one factor. Genetic and neurobiological factors are effective in developing depression and more than one environmental factor (Klengel & Binder, 2013). Positive interactions with others are an essential psychosocial resource that prevents the development of depression in individuals (Eisman et al., 2015). One of the critical factors that appear to cause the symptoms of depression to emerge is the experience of being excluded and ignored (Slavich et al., 2010; Williams, 2009). The Psychobiological Model of Social Rejection and Depression (Slavich et al., 2010) states that ostracism negatively affects self-protection, leading to negative thoughts such as not being a lovable individual. These negative thoughts, on the other hand, cause negative emotions such as shame and social withdrawal (Kemeny, 2009). In addition, according to the social risk theory of depression, depression is a functional response to long-term ostracism and rejection by others (Allen & Badcock, 2003).

Individuals become highly sensitive to rejection cues and withdraw from situations in which they will interact socially, reducing their likelihood of rejection (Jiang & Chen, 2020). Ostracism impairs emotional comfort and social and psychological functioning and may lead to the development of mental disorders (Williams, 2007). Ostracism is one of the critical risk factors for depression in young adolescents (Slavich et al., 2010). Variables such as belonging, self-esteem, and existential meaning that positively affect the mental health of individuals and can be expressed as basic needs are negatively affected by ostracism (Gonsalkorale & Williams, 2007; Jamieson et al., 2010; Williams, 2001, 2007). It is thought that even a tiny amount of ostracism and ignorance may cause various psychological disorders by preventing the fulfilling of the mentioned basic needs (Williams, 2001, 2007). Some cross-sectional studies have shown that perceived ostracism positively correlates with depression (Jiang & Chen, 2020; Van Zalk & Smith, 2019). In addition, longitudinal studies have determined that ostracism precedes high levels of depression (Nolan et al., 2003). Studies have not examined the mediating role of ostracism in the relationship between attachment styles and depression. In this study, we also examined the mediating role of ostracism in the relationship between attachment styles and depression. In this research, we tested three hypotheses:

1. Ostracism plays a mediating role between secure attachment and depression.
2. Ostracism plays a mediating role between avoidant attachment and depression.
3. Ostracism plays a mediating role between anxious-ambivalent attachment and depression.

Method

Research design

The path analysis model was adopted in this study, which aims to examine the mediating role of ostracism in the effect of high school students' secure, avoidant, and anxious-ambivalent attachments on depression. Path analysis measures direct and indirect connections between variables and displays these relationships on a visual diagram. It also helps researchers understand the interactions between variables in complex data sets (Kline, 2016).

Participants

In the study, the maximum variation sampling method based on collecting data from these groups by dividing them into different groups (Büyüköztürk et al., 2014) was used. Data were collected from the Arnavutkoy district of Istanbul, Turkey most populous and most developed city. There are five Anatolian High Schools, six Imam Hatip High Schools, and eight Vocational High Schools in the district, and there are 19.891 students in these schools. In the study, multivariate statistical methods were used, significance at the .05 level was examined. On the other hand, Büyüköztürk et al. (2014) state that at least 377 people should be reached in groups with a population size of around 20,000 in the analysis to be made at the .05 level. In addition, according to Kline (2016), the sample size should be at least ten times the number of parameters in studies based on structural equation modelling. Since the number of parameters in this study is 50, attention was paid to ensure that the sample size reached was at least 500, and a total of 704 people were reached. After 83 outliers were removed from the data set, analyses were made with 621 people. The demographic information of the people from whom the data was collected is presented in Table 1.

66.8% ($n = 415$) of the students participating in the study were female and 33.2% ($n = 206$) were male; 32.65% ($n = 202$) 9th grade, 32.2% ($n = 200$) 10th grade, 18.4% ($n = 114$) 11th grade and 16.9% ($n = 105$) 12th grade; 66.5% ($n = 413$) attend Anatolian high school, 18.8% ($n = 117$) imam hatip high school and 14.7% ($n = 91$) vocational high school. The average age of the students is 15.59.

Data collection tools

Depression, anxiety, and stress scale short form (DASS-21)

This scale was developed by Lovibond and Lovibond (1995) and adapted into Turkish by Sarıçam (2018). The scale was first developed as 42 items. Later, a 21-item short form of this form was prepared. Scale depression (3, 5, 10, 13, 16, 17 and 21), anxiety (2, 4, 7, 9, 15, 19 and 20) and stress It consists of three sub-dimensions (1, 6, 8, 11, 12, 14 and 18). The scale is a five-point Likert type; the lowest score that can be obtained from each dimension is 0, and the highest score is 21. There is no reverse item in the scale. Goodness of fit values in the Turkish version of the scale were also found to be within acceptable ranges [χ^2 (39, $N = 101$) = 74.57, $p = 0.00$, GFI = 0.951, CFI = 0.956, TLI = 0.925, RMSEA = 0.044, SRMR = 0.046]. In the original scale study, the internal consistency coefficient was found to be .94 for depression, .87 for anxiety, and .91 for stress. The internal consistency coefficient for the Turkish adaptation of the scale was found to be .84 for anxiety, .87 for depression, and .85 for the stress sub-dimension.

Three-dimensional attachment style scale

This scale was developed by Erzen (2016) to determine individuals' attachment styles between the ages of 12-25. Secure attachment (4, 7, 10, 13, 16), avoidant attachment (1, 3, 5, 9, 12, 15, 18) and anxious-ambivalent attachment style It has three sub-dimensions (2, 6, 8, 11, 14, 17) and 18 items. It is a five-point Likert type, and each dimension is evaluated within itself. The Cronbach Alpha internal consistency coefficient of the scale was determined as .80 for the Avoidant Attachment Style, .69 for the Secure Attachment Style, and .71 for the Anxious-ambivalent Attachment Style in the subscales. It was seen that the scale showed good agreement with the goodness of fit values ($\chi^2/df = 2.48$, GFI = 0.93, CFI = 0.90, AGFI = 0.90, RMSEA = 0.05). There is no reverse item in

Table 1. Model fit index values.

Indexes	Acceptable Fit	Good Fit
GFI	.85 ≤ GFI ≤ .90	.90 ≤ GFI ≤ 1.00
CFI	.90 ≤ CFI ≤ .95	.95 ≤ CFI ≤ 1.00
NFI	.90 ≤ NFI ≤ .95	.95 ≤ NFI ≤ 1.00
SRMR	.05 ≤ SRMR ≤ .08	0 ≤ SRMR < .05

the scale. In order to determine whether all three sub-dimensions were effective in separating groups, the coefficients of separation functions were examined and it was seen that the avoidant attachment style was .86, the secure – .53 and the anxious-ambivalent attachment style were .78 with relation and separation power.

The ostracism experience scale for adolescents

Gilman et al. (2013) to determine the level of ostracism and neglect of adolescents, the Turkish adaptation of the scale was made by Akin et al. (2016). This scale is evaluated on a five-point Likert scale (“1” Never, “2” Rarely, “3” Often, “4” Usually, “5” Always), and there is no reverse coded item. The scale has two sub-dimensions, being neglected and being excluded, and high scores also increase the perception of ostracism. In the analyses performed for the Turkish adaptation of the scale, the goodness of model fit ($\chi^2 = 80.64$, $sd = 41$, $RMSEA = .056$, $NFI = .96$, $NNFI = .97$, $CFI = .98$, $IFI = .98$, $RFI = .95$, $GFI = .95$, $SRMR = .048$) showed a good fit. The factor loadings of the scale range from .71 to .88, and the item-total correlation coefficients range from .51 to .70. The internal consistency reliability coefficient of the scale was found to be .93 for the disregard subscale, .90 for the exclusion subscale, and .89 for the whole scale.

Ethical procedures and process

The study procedures were designed by the provisions of the Declaration of Helsinki regarding research on human participants. Informed consent was prepared to inform participants about research and ethical issues, and data were collected from those who accepted. In addition, since the study was conducted with children under 18, the necessary legal permissions were obtained from the district governorship of the schools in the district where the study was conducted. Information messages were sent to the parents through the school administrators and the children of the parents who volunteered were asked to fill in the forms. Data collection was done via Google form since the education was in the distance education process.

Data analysis

Before proceeding to the data analysis, the outlier values were examined. The Mahalanobis distances of the data were calculated, and 83 extreme values were removed from the data set. Since the skewness and kurtosis values of the data were between -1.5 and $+1.5$, it was accepted that the data exhibited a normal distribution (Tabachnick & Fidell, 2013). Structural equation modelling was used for Pearson correlation and mediation analysis to determine the relationship between variables. To determine the bootstrap coefficient and confidence intervals, 5000 bootstrap loads were made. As a result of the bootstrap loaded at this point, it was seen that the lower and upper confidence intervals were not zero (Preacher & Hayes, 2008). SPSS 25.0 programme was used to determine the descriptive statistics and correlation analysis of the data collected in the study, and AMOS 20.0 programme was used for path analysis. The model's compatibility was examined in terms of GFI, CFI, NFI, and SRMR values. At this point, the evaluation ranges of these indices were evaluated according to the ranges in the table below: (Baumgartner & Homburg, 1996; Browne & Cudeck, 1993; Hu & Bentler, 1998; Kline, 2016; Schermelleh-Engel et al., 2003; Schumacker & Lomax, 2010; Wang & Wang, 2012; Yılmaz & Çelik, 2005).

Results

Descriptive statistics and correlation values

The descriptive statistical values of the variables of ostracism, depression, secure attachment, avoidant attachment, and anxious-ambivalent attachment used in this study and the Pearson Correlation

Table 2. Descriptive statistics and correlation values of variables.

	1	2	3	4	5
1. Ostracism	1				
2. Depression	.364**	1			
3. Secura Attachment	-.293**	-.338**	1		
4. Avoidant Attachment	.126**	.259**	-.229**	1	
5. Anxious-ambivalent Attachment	.276**	.575**	-.233**	.352**	1
\bar{x}	24.57	9.10	19.88	16.10	18.67
Ss	5.58	5.68	3.13	6.06	6.14
Skewness	.250	.318	-.360	.600	-.103
Kurtosis	.196	-.844	-.479	-.395	.196

($N = 625$). ** $p < .01$.

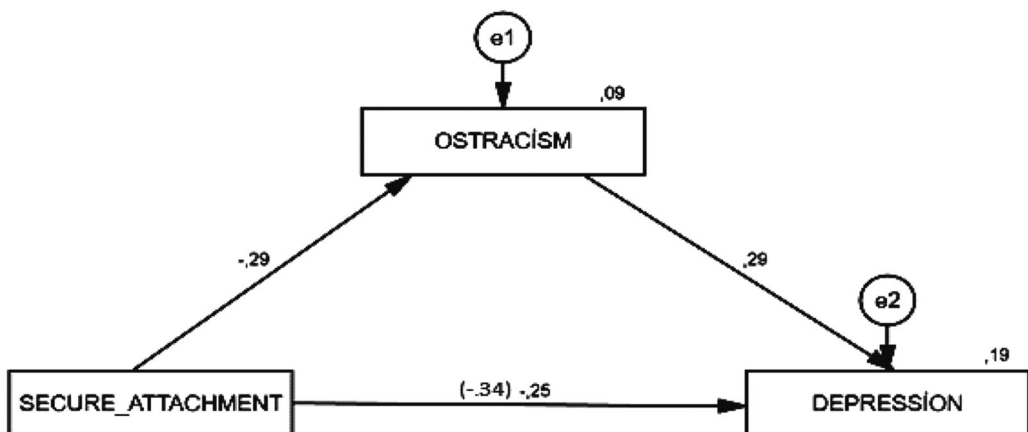
Analysis findings conducted to examine the relationship between these variables are presented in Table 2.

When the correlational values between the variables are examined, there is a moderate positive ($r = .364, p < .01$) between ostracism and depression, a low negative direction with secure attachment ($r = -.293, p < .01$), a low level with avoidant attachment. It was observed that there was a significant positive relationship ($r = .126, p < .01$) at a high level and a low level of positive relationship with anxious-ambivalent attachment ($r = .276, p < .01$). In addition, there is moderate negative direction ($r = -.338, p < .01$) between depression and secure attachment, low positive direction with avoidant attachment ($r = .259, p < .01$), and low level positive direction with anxious ambivalent attachment ($r = .575, p < .01$) was found to be a significant relationship.

Model 1: examining the mediating role of ostracism in the effect of secure attachment on depression

Mediation model analysis was conducted in the format determined by Baron and Kenny (1986). According to this format, there should be a significant relationship between the independent variable, secure attachment, and the independent variable, depression. The analysis determined that secure attachment predicted depression significantly, and the goodness of fit values of this model showed good overall fit [CFI = 1.00, GFI = 1.00, NFI = 1.00, SRMR = .00]. Figure 1 shows that secure attachment significantly predicts depression at the .34 level. In addition, when the effect of secure attachment, the independent variable, is controlled, the mediating variable, ostracism, should

Figure 1. Mediator role model of ostracism in the effect of secure attachment on depression.



significantly predict depression. At this point, the effect of the mediator variable was controlled to determine the mediator role in the model, and it was determined that there was a decrease in the amount of the relationship between the independent variable, secure attachment, and the dependent variable, depression. Hypothesis 1 was confirmed. Based on these mentioned ways, model 1 was tested, and the results are shown in [Figure 1](#).

When the results of the determined model tests are analysed in terms of mediation effect, In Model 1, the secure attachment was found to predict depression significantly ($\beta = .34, p < .001$). When the mediator variable ostracism is added to the model, it is seen that secure attachment predicts depression ($\beta = .25, p < .001$). In addition, it is seen that secure attachment significantly predicts ostracism ($\beta = .29, p < .001$). Finally, ostracism also predicts depression significantly ($\beta = .29, p < .001$).

In this model, in which the mediating effect of ostracism on the relationship between depression and secure attachment was examined, it was found that the standardised regression coefficient (from $\beta = .34$ to $\beta = .25, p < .001$) of the relationship between secure attachment and depression decreased. In addition, when the fit indices of the model in [Figure 1](#) were examined, it was found that the goodness of fit values showed a perfect fit [CFI = 1.00, GFI = 1.00, NFI = 1.00, SRMR = .00].

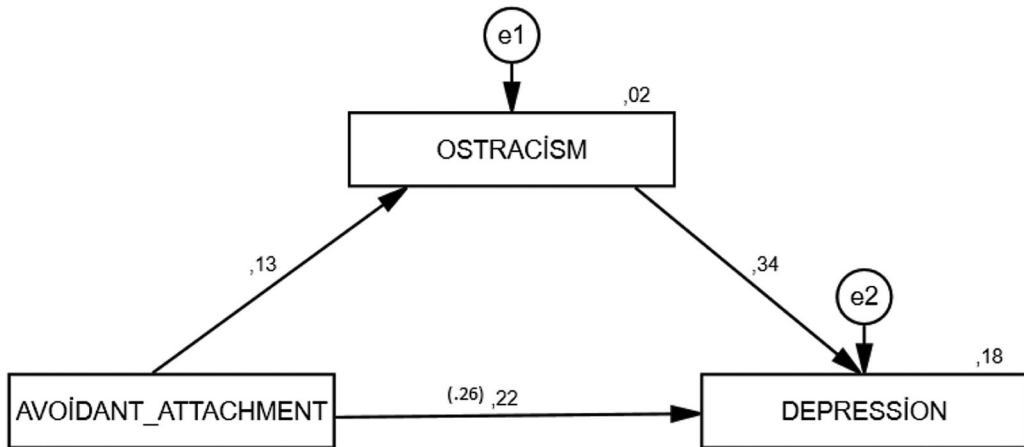
As a result of the analyses made to determine the mediating role of ostracism, it is seen that the relationship between secure attachment and depression decreased with the inclusion of ostracism in the model. Despite the decrease in beta values, it was observed that both variables did not lose their predictive value. Accordingly, it has been determined that secure attachment has a direct effect on depression as well as an indirect effect through ostracism. In other words, it can be said that ostracism partially mediates between secure attachment and depression. After determining the mediator effect, the bootstrap confidence interval was examined to measure the effect level of the mediating role of ostracism. When the information in [Table 3](#) is examined, it is seen that the lower and upper limits of bootstrap are different from zero (Gürbüz, 2019; Preacher & Hayes, 2008), and ostracism has a mediating effect ($\beta = .460, 95\% \text{ CI } [.611, .311]$).

Model 2: examining the mediating role of ostracism in the effect of avoidant attachment on depression

It was found that avoidant attachment predicted depression significantly, and the goodness of fit values of this model showed good overall fit [CFI = 1.00, GFI = 1.00, NFI = 1.00, SRMR = .00]. [Figure 2](#) shows that secure significantly predicted depression at the .24 level. In addition, when the effect of avoidant attachment, which is the independent variable, is controlled, the mediator variable, ostracism, should significantly predict depression. At this point, the effect of the mediator variable was controlled to determine the mediator's role in the model. It was determined that there was a decrease in the amount of the relationship between the independent variable, avoidant attachment, and the dependent variable, depression. Hypothesis 2 has been confirmed. Based on these mentioned ways, model 2 was tested, and the results are shown in [Figure 2](#).

Table 3. Regression and bias values of Model 1.

Regression Values		Standard				Bias (%95)	
		β	S.E.	C.R.	<i>P</i>	Lower Limit	Upper limit
Ostracism	← Secure Attachment	-.293	.105	-7.61	<.001		
Depression	← Ostracism	.290	.025	7.66	<.001		
Depression	← Secure Attachment (Direct Effect)	-.254	.069	-6.71	<.001		
Depression	← Secure Attachment (Total Effect)	-.338	.069	-8.95	<.001		
Depression	← Ostracism ← Secure Attachment (Indirect Effect)	.460	.077			-.611	-.311

Figure 2. Mediator role model of ostracism in the effect of avoidant attachment on depression.

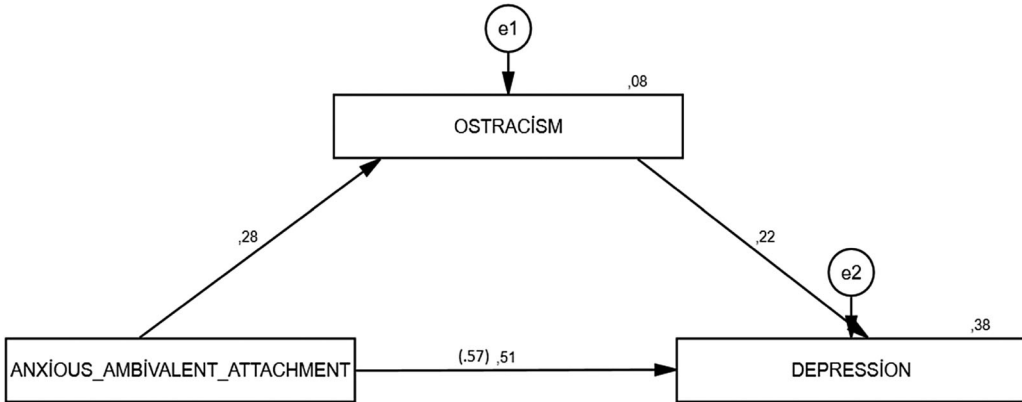
When the results of the determined model tests are analysed in terms of mediation effect, In Model 2, the avoidant attachment was found to predict depression significantly ($\beta = .24, p < .001$). When ostracism is added as the mediator variable in the model, it is seen that avoidant attachment predicts depression ($\beta = .22, p < .001$). In addition, avoidant attachment predicts ostracism ($\beta = .13, p < .001$) significantly. Finally, ostracism also predicts depression significantly ($\beta = .34, p < .001$).

In this model, in which the mediating effect of ostracism on the relationship between avoidant attachment and depression was examined, it was determined that the standardised regression coefficient (from $\beta = .26$ to $\beta = .22, p < .001$) of the relationship between avoidant attachment and depression decreased. In addition, when the fit indices of the model in Figure 2 were examined, it was determined that the goodness of fit values showed a perfect fit [CFI = 1.00, GFI = 1.00, NFI = 1.00, SRMR = .00].

As a result of the analyses made to determine the mediating role of ostracism, it is seen that the relationship between avoidant attachment and depression decreased with the inclusion of ostracism in the model. Despite the decrease in beta values, it was observed that both variables did not lose their predictive value. Accordingly, it was determined that avoidant attachment had a direct effect on depression and an indirect effect through ostracism. In other words, it can be said that ostracism partially mediates between avoidant attachment and depression. After determining the mediator effect, the bootstrap confidence interval was examined to measure the effect level of the mediating role of ostracism. When the information in Table 4 is examined, it is seen that the lower and upper limits of bootstrap (self-loading) are different from zero (Gürbüz, 2019; Preacher & Hayes, 2008) and ostracism has a mediating effect ($\beta = .179, 95\% \text{ CI } [.123], .234$).

Table 4. Regression and bias values of Model 2.

Regression Values		Standard				Bias (%95)	
		β	S.E.	C.R.	P	Lower Limit	Upper Limit
Ostracism	← Avoidant Attachment	.126	.056	3.16	<.001		
Depression	← Ostracism	.336	.024	9.16	<.001		
Depression	← Avoidant Attachment (Direct Effect)	-.217	.034	5.91	<.001		
Depression	← Avoidant Attachment (Total Effect)	.259	.036	6.68	<.001		
Depression	← Ostracism ← Avoidant Attachment (Indirect Effect)	.179	.000			.123	.234

Figure 3. Mediator role model of ostracism in the effect of anxious-ambivalent attachment on depression.

Model 3: examining the mediating role of ostracism in the effect of anxious-ambivalent attachment on depression

It was found that anxious-ambivalent attachment significantly predicted depression, and the goodness of fit values of this model showed good overall fit [CFI = 1.00, GFI = 1.00, NFI = 1.00, SRMR = .00]. **Figure 3** shows that anxious ambivalent attachment significantly predicts depression at the .57 level. In addition, when the effect of anxious-ambivalent attachment, which is the independent variable, is controlled, the mediator variable, ostracism, should predict depression significantly. At this point, the effect of the mediator variable was controlled to determine the mediator role in the model. It was determined that there was a decrease in the amount of the relationship between the independent variable, anxious-ambivalent attachment, and the dependent variable, depression. Hypothesis 3 has been confirmed. Based on these mentioned ways, model 3 was tested, and the results are shown in **Figure 3**.

When the results of the determined model tests are analysed in terms of mediation effect, In Model 3, the anxious-ambivalent attachment was found to predict depression significantly ($\beta = .57, p < .001$). When the mediator variable ostracism is added to the model, it is seen that anxious ambivalent attachment predicts depression ($\beta = .51, p < .001$). In addition, anxious ambivalent attachment seems to predict ostracism ($\beta = .28, p < .001$) significantly. Finally, ostracism also predicts depression significantly ($\beta = .22, p < .001$).

In this model, in which the mediating effect of ostracism on the relationship between anxious ambivalent attachment and depression was examined, it was determined that the standardised regression coefficient (from $\beta = .57$ to $\beta = .51, p < .001$) of the relationship between anxious ambivalent attachment and depression decreased. In addition, when the fit indices of the model in **Figure 3** were examined, it was determined that the goodness of fit values showed a perfect fit [CFI = 1.00, GFI = 1.00, NFI = 1.00, SRMR = .00].

As a result of the analyses made to determine the mediating role of ostracism, it is seen that the relationship between anxious ambivalent attachment and depression decreased with the inclusion of ostracism in the model. Despite the decrease in beta values, it was observed that both variables did not lose their predictive value. Accordingly, it was determined that anxious ambivalent attachment had a direct effect on depression but also an indirect effect through ostracism. In other words, it can be said that ostracism partially mediates between anxious ambivalent attachment and depression. After determining the mediator effect, the bootstrap confidence interval was examined to measure the effect level of the mediating role of ostracism. When the information in **Table 5** is examined, it is seen that the lower and upper limits of the bootstrap are different from zero (Gürbüz, 2019; Preacher & Hayes, 2008), and ostracism has a mediating effect ($\beta = .376, 95\% \text{ CI } [.314, .439]$).

Table 5. Regression and bias values of Model 2.

Regression Values		Standart				Bias (%95)	
		β	S.E.	C.R.	<i>P</i>	Lower Limit	Upper Limit
Ostracism ←	Anxious Ambivalent Attachment	.276	.054	7.14	<.001		
Depression ←	Ostracism	.222	.022	6.73	<.001		
Depression ←	Anxious Ambivalent Attachment (Direct Effect)	.513	.031	15.55	<.001		
Depression ←	Anxious Ambivalent Attachment (Total Effect)	.575	.031	17.48	<.001		
Depression ←	Ostracism ← Anxious Ambivalent Attachment (Indirect Effect)	.376	.031			.314	.439

Conclusion and discussion

As a result of the study, we first confirmed that ostracism partially mediates the relationship between secure attachment and depression. Secure attachment predicted ostracism and depression negatively; We found that ostracism predicted depression positively. Secondly, we found that avoidant attachment predicted depression and ostracism positively, and ostracism played a mediating role in this relationship. Finally, we concluded that anxious-ambivalent attachment positively explains ostracism and depression and that ostracism plays a mediating role in this relationship. When we look at the literature, although there are no studies examining the relationship between each type of attachment and ostracism and depression, there are studies parallel to the results of our research. When the literature was examined, Kavaklı (2021) concluded in his study that ostracism and social exclusion predict depression and stress. In addition, Aktaş (2020) found in his study with adolescents that there was a negative significant relationship between parental attachment styles and social exclusion levels. Niu et al. (2016) determined that ostracism positively correlates with depression. Agerup et al. (2015) concluded that insecure attachment to both parents is associated with the course of depression. Less secure attachment to mothers was associated with being depressed. Less secure attachment to both parents was associated with the recovery and staying depressed. Rawatlal et al. (2015) found that older age, higher levels of avoidant attachment, and dysfunctional family interaction were associated with more depressive symptoms. Yolalan (2013) determined in his study that there is a negative relationship between the depression level of adolescents and secure attachment and a positive relationship between the depression level and fearful and pre-occupied attachment. In their study with adolescents, Düşünceli et al. (2022) concluded that secure attachment and anxious-ambivalent attachment styles significantly predict the depression level of adolescents. Preventing the socialisation needs of individuals, especially in adolescence, with a situation such as ostracism may cause them to turn to themselves and have a more negative emotional state because they cannot meet their socialisation needs. As secure attachment increases the quality of individuals' relationships, it may decrease exclusion and the appearance of depression symptoms. In addition, avoidant and anxious-ambivalent attachment styles are characterised by situations such as not meeting the needs of individuals in relationships and feelings of worthlessness. These types of attachment can cause individuals to withdraw in their relationships or behave uncomfortable in relationships. Individuals who do not behave well in their relationships may also be ignored and devalued by others. As a result, it may be inevitable for individuals to experience depression.

Implications and future directions

Adolescence is one of the periods when emotional problems are seen intensely. Especially when it is considered in terms of depression, the incidence of depression increases considerably during adolescence. In this context, it is necessary to find the triggers of individuals' depression and to intervene in them. In light of the proposed results of this study, other factors affecting ostracism in adolescents

can be examined. In addition, group guidance and seminar studies can be carried out to raise awareness of adolescents' attachment styles. Educators/trainers etc. can also use OPV in experiential activities to increase group and organisational synergy. In addition, sharing the effects of ostracism on peers with essential stakeholders and carrying out preventive guidance studies can be functional. Future studies may include the opinions of peers and parents on attachment and ostracism. Since OPV allows participants to express their own experiences with as little manipulation as possible compared to quantitative methods, researchers can use the "Online Photovoice" method in future studies. Future studies may collect data from different regions of Turkey to have a representative sample of adolescents. In addition, qualitative research can be conducted to explore adolescents' experiences of ostracism and attachment.

Limitations

The following limitations should be considered when interpreting the results of the present study. The data of this study are based on adolescents' self-reports. This situation may have caused adolescents to behave biasedly to achieve social desirability. Another limitation of this study is that it is cross-sectional, which limits the causal interpretation of the results. A final limitation is that the adolescents were from a city school and did not represent adolescents across the country.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Osman Söner graduated from İnönü University, department of psychological counseling and guidance. After his undergraduate education, he completed his master's degree in psychological counseling and guidance at Ufuk University and received the title of specialist. In his master's thesis, he studied the self-concept of adolescents. Dr. Osman Söner has published articles on career development and mental health counseling of high school and university students. These articles have been published in SSCI, ESCI and educational sciences field indexed journals. The researcher completed his doctoral thesis in the field of psychological counseling and guidance at Uludağ University. In his doctoral thesis, he developed a theory about the career development of high school students. The researcher's thesis is very important domestically in this context. The researcher currently serves as an academician at Istanbul Sabahattin Zaim University. In addition to his academic career, he is a psychological testing practitioner. In addition, the researcher conducts many scientific research projects and TÜBİTAK projects.

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Data availability statement

The data for this study is not publicly available in order to protect human subjects' privacy and security concerns. However, the datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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References

- Agerup, T., Lydersen, S., Wallander, J., & Sund, A. M. (2015). Associations between parental attachment and course of depression between adolescence and young adulthood. *Child Psychiatry & Human Development*, 46(4), 632–642. <https://doi.org/10.1007/s10578-014-0506-y>
- Ainsworth, M. S. (1989). Attachments beyond infancy. *American Psychologist*, 44(4), 709–716. <https://psycnet.apa.org/doi/10.10370003-066X.44.4.709>
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale.
- Akın, A., Uysal, R., & Akın, Ü. (2016). Ergenler için ostrasizm(sosyal dışlanma) ölçeğinin Türkçe'ye uyarlanması. *Kastamonu Eğitim Dergisi*, 24(2), 895–904.
- Akman, I., Kuşçu, K., Özdemir, N., Yurdakul, Z., Solakoglu, M., Orhan, L., Karabekiroğlu, A., & Özek, E. (2006). Mothers' postpartum psychological adjustment and infantile colic. *Archives of Disease in Childhood*, 91(5), 417–419. <https://doi.org/10.1136/adc.2005.083790>
- Aktaş, E. (2020). *Ergenlerin ebeveyne bağlanma stilleri ile sosyal görünüş kaygısı ve sosyal dışlanma düzeyleri arasındaki ilişkinin incelenmesi*. (Examining the relationship between adolescents' attachment styles to parents and their levels of social appearance anxiety and social exclusion) [Yayınlanmamış yüksek lisans tezi]. Necmettin Erbakan Üniversitesi, Konya.
- Allen, N. B., & Badcock, P. B. (2003). The social risk hypothesis of depressed mood: evolutionary, psychosocial, and neurobiological perspectives. *Psychological Bulletin*, 129(6), 887. <https://psycnet.apa.org/doi/10.10370033-2909.129.6.887>
- Allen, J. P., Porter, M. R., McFarland, F. C., Marsh, P., & McElhane, K. B. (2005). The two faces of adolescents' success with peers: Adolescent popularity, social adaptation, and deviant behavior. *Child Development*, 76(3), 747–760. <https://doi.org/10.1111/j.14678624.2005.00875.x>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.).
- Armsden, G. C., & Greenberg, M. T. (1987). The inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in Adolescence. *Journal of Youth and Adolescence*, 16(5), 427–454. <https://doi.org/10.1007/BF02202939>
- Armsden, G. C., McCauley, E., Greenberg, M. T., Burke, P. M., & Mitchell, J. R. (1990). Parent and peer attachment in early adolescent depression. *Journal of Abnormal Child Psychology*, 18(6), 683–697. <https://doi.org/10.1007/BF01342754>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <https://doi.org/10.1037//0022-3514.51.6.1173>
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, 7(2), 147–178. <http://doi.org/10.1177/0265407590072001>
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: a test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226. <https://doi.org/10.1037//0022-3514.61.2.226>
- Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. *International Journal of Research in Marketing*, 13(2), 139–161. [https://doi.org/10.1016/0167-8116\(95\)00038-0](https://doi.org/10.1016/0167-8116(95)00038-0)
- Bertha, E. A., & Balázs, J. (2013). Subthreshold depression in adolescence: a systematic review. *European Child & Adolescent Psychiatry*, 22(10), 589–603. <https://doi.org/10.1007/s00787-013-0411-0>
- Bowlby, J. (1969). *Attachment and loss: Vol. 1 attachment*. Basic Books.
- Bowlby, J. (1988). *Clinical applications of attachment: A secure base*. Routledge.
- Brenning, K., Soenens, B., Braet, C., & Bosmans, G. (2011). The role of depressogenic personality and attachment in the intergenerational similarity of depressive symptoms: A study with early adolescents and their mothers. *Personality and Social Psychology Bulletin*, 37(2), 284–297. <https://doi.org/10.1177/0146167210393533>
- Brown, B. B., & Larson, J. (2009). Peer relationships in adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 74–103). Wiley.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Ed.), *Testing structural equation models* (pp. 136–162). Sage.
- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2014). *Bilimsel Araştırma Yöntemleri* (17th ed.). Pegem Akademi.
- Case, T. I., & Williams, K. D. (2004). Ostracism: A metaphor for death. In J. Greenberg, S. L. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 336–368). Guilford Press.

- Ciechanowski P. S., Walker E. A., Katon W. J., & Russo, J. E. (2002) Attachment theory: A model for health care utilization and somatization. *Psychosomatic Medicine*, 64(4), 660–667. <https://doi.org/10.1097/01.psy.0000021948.90613.76>
- Clark, M. S., Jansen, K. L., & Cloy, J. A. (2012). Treatment of childhood and adolescent depression. *American Family Physician*, 86(5), 442–448.
- Colonesi, C., Draijer, E. M., Jan, J. M., Stams, G., Van der Bruggen, C. O., Bögels, S. M., & Noom, M. J. (2011). The relation between insecure attachment and child anxiety: A meta-analytic review. *Journal of Clinical Child & Adolescent Psychology*, 40(4), 630–645. <https://doi.org/10.1080/15374416.2011.581623>
- Cooper, M. L., Shaver, P. R., & Collins, N. L. (1998). Attachment styles, emotion regulation, and adjustment in adolescence. *Journal of Personality and Social Psychology*, 74(5), 1380. <https://doi.org/10.1037//0022-3514.74.5.1380>
- Copeland, W. E., Adair, C. E., Smetanin, P., Stiff, D., Briante, C., Colman, I., Fergusson, D., Horwood, J., Poulton, R., Costello, E. J., & Angold, A. (2013). Diagnostic transitions from childhood to adolescence to early adulthood. *Journal of Child Psychology and Psychiatry*, 54(7), 791–799. <https://doi.org/10.1111/jcpp.12062>
- Costello, E. J., Erkanli, A., & Angold, A. (2006). Is there an epidemic of child or adolescent depression?, *Journal of Child Psychology and Psychiatry*, 47(12), 1263–1271. <https://doi.org/10.1111/j.1469-7610.2006.01682.x>
- Düşünceli, B., Özbey, H., & Karakuloğlu, M. (2022). Ergenlerde depresyon düzeyinin bağlanma stillerine ve sosyal medya bağımlılığına göre incelenmesi [Examining the level of depression in adolescents according to attachment styles and social media addiction]. *Uludağ Üniversitesi Eğitim Fakültesi Dergisi*, 35(1), 28–43.
- Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, 302(5643), 290–292. <https://doi.org/10.1126/science.1089134>
- Eisman, A. B., Stoddard, S. A., Heinze, J., Caldwell, C. H., & Zimmerman, M. A. (2015). Depressive symptoms, social support, and violence exposure among urban youth: A longitudinal study of resilience. *Developmental Psychology*, 51(9), 1307. <https://psycnet.apa.org/doi/10.1037a0039501>
- Erzen, E. (2016). Three dimensional attachment style scale. *Inönü University Journal of the Faculty of Education*, 17(3), 1–21. <https://doi.org/10.17679/iuefd.17323631>
- Eurlings-Bontekoe, E. H., Verschuur, M. J., & Schreuder, B. (2003). Personality, temperament, and attachment style among offspring of World War II victims: an integration of descriptive and structural features of personality. *Traumatology*, 9(2), 106–122. <https://doi.org/10.1177/153476560300900204>
- Fergusson, D. M., & Woodward, L. J. (2002). Mental health, educational, and social role outcomes of adolescents with depression. *Archives of General Psychiatry*, 59(3), 225–231. <https://doi.org/10.1001/archpsyc.59.3.225>
- Gilman, R., Carter-Sowell A., DeWall, N., Adams, R., & Carboni, I. (2013). Validation of the ostracism experiences scale for adolescents. *Psychological Assessment*, 25(2), 319–330. <https://doi.org/10.1037/a0030913>
- Goldstein, S. E., Boxer, P., & Rudolph, E. (2015). Middle school transition stress: Links with academic performance, motivation, and school experiences. *Contemporary School Psychology*, 19(1), 21–29. <https://doi.org/10.1007/s40688-014-0044-4>
- Gonsalkorale, K., & Williams, K. D. (2007). The KKK won't let me play: Ostracism even by a despised outgroup hurts. *European Journal of Social Psychology*, 37(6), 1176–1186. <https://doi.org/10.1002/ejsp.392>
- Groh, A. M., Roisman, G. I., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., & Fearon, R. P. (2012). The significance of insecure and disorganized attachment for children's internalizing symptoms: A meta-analytic study. *Child Development*, 83(2), 591–610. <https://doi.org/10.1111/j.1467-8624.2011.01711.x>
- Grotevant, H. D., & Cooper, C. R. (2005). Individuality and connectedness in adolescent development. In E. Elisabeth & A. E. Skoe (Eds.), *Personality Development in Adolescence: A cross national and life span perspective* (pp. 82–100). Routledge.
- Gürbüz, S. (2019). *AMOS ile yapısal eşitlik modellemesi: Temel ilkeler ve uygulamalı analizler (IBM AMOS uygulamalı, örnek veri setleri)*. Seçkin Yayıncılık.
- Hames, J. L., Hagan, C. R., & Joiner, T. E. (2013). Interpersonal processes in depression. *Annual Review of Clinical Psychology*, 9(2), 355–377.
- Hammell, K. R. W. (2014). Belonging, occupation, and human well-being: An exploration: Appartenance, occupation et bien-être humain: Une étude exploratoire. *Canadian Journal of Occupational Therapy*, 81(1), 39–50. <https://doi.org/10.1177/0008417413520489>
- Hankin, B. L. (2006). Adolescent depression: Description, causes, and interventions. *Epilepsy & Behavior*, 8(1), 102–114. <https://doi.org/10.1016/j.yebeh.2005.10.012>
- Hankin, B. L., Young, J. F., Abela, J. R., Smolen, A., Jenness, J. L., Gulley, L. D., Technow, J.R., Gottlieb, A.B., Cohen, J.R., & Oppenheimer, C.W. (2015). Depression from childhood into late adolescence: Influence of gender, development, genetic susceptibility, and peer stress. *Journal of Abnormal Psychology*, 124(4), 803. <https://psycnet.apa.org/doi/10.1037abn0000089>
- Hartup, W. W., & Laursen, B. (1999). Relationships as developmental contexts: Retrospective themes and contemporary issues. In A.Collins & B. Laursen (Eds.), *Relationships as developmental contexts* (pp. 27–50). Psychology Press.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524. <http://doi.org/10.1037/0022-3514.52.3.511>
- Hu, L.T., & Bentler, P.M. (1998). Fit indices in covariances structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3, 424–453. <https://doi.org/10.1037/1082-989X.3.4.424>

- Jamieson, J. P., Harkins, S. G., & Williams, K. D. (2010). Need threat can motivate performance after ostracism. *Personality and Social Psychology Bulletin*, 36(5), 690–702. <https://doi.org/10.1177/0146167209358882>
- Jiang, T., & Chen, Z. (2020). Meaning in life accounts for the association between long-term ostracism and depressive symptoms: The moderating role of self-compassion. *The Journal of Social Psychology*, 160(5), 535–547. <https://doi.org/10.1080/00224545.2019.1693951>
- Jinyao, Y., Xiongzhao, Z., Auerbach, R. P., Gardiner, C. K., Lin, C., Yuping, W., & Shuqiao, Y. (2012). Insecure attachment as a predictor of depressive and anxious symptomology. *Depression and Anxiety*, 29(9), 789–796. <https://doi.org/10.1002/da.21953>
- Jones, J. D., Fraley, R. C., Ehrlich, K. B., Stern, J. A., Lejuez, C. W., Shaver, P. R., & Cassidy, J. (2018). Stability of attachment style in adolescence: An empirical test of alternative developmental processes. *Child Development*, 89(3), 871–880. <https://doi.org/10.1111/cdev.12775>
- Kavakli, M. (2021). Which one is more detrimental for humankind? Ostracism or social exclusion? Their effects on depression, anxiety, stress. *Journal of Cognitive-Behavioral Psychotherapy and Research*, 10(1), 12–18. <https://doi.org/10.5455/JCBPR.63389>
- Keenan-Miller, D., Hammen, C. L., & Brennan, P. A. (2007). Health outcomes related to early adolescent depression. *Journal of Adolescent Health*, 41(3), 256–262. <https://doi.org/10.1016/j.jadohealth.2007.03.015>
- Kemeny, M. E. (2009). Psychobiological responses to social threat: Evolution of a psychological model in psychoneuroimmunology. *Brain, Behavior, and Immunity*, 23(1), 1–9. <https://doi.org/10.1016/j.bbi.2008.08.008>
- Klengel, T., & Binder, E. B. (2013). Gene-environment interactions in major depressive disorder. *The Canadian Journal of Psychiatry*, 58(2), 76–83. <https://doi.org/10.1177/070674371305800203>
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th Ed.). The Guilford Press.
- Koepke, S., & Denissen, J. J. A. (2012). Dynamics of identity development and separation individuation in parent–Child relationships during adolescence and emerging adulthood – A conceptual integration. *Developmental Review*, 32(1), 67–88. <https://doi.org/10.1016/j.dr.2012.01.001>
- Larson, R., & Richards, M. H. (1991). Daily companionship in late childhood and early adolescence: Changing developmental contexts. *Child Development*, 62(2), 284–300. <https://doi.org/10.1111/j.1467-8624.1991.tb01531.x>
- Lee, A., & Hankin, B. L. (2009). Insecure attachment, dysfunctional attitudes, and low self-esteem predicting prospective symptoms of depression and anxiety during adolescence. *Journal of Clinical Child & Adolescent Psychology*, 38(2), 219–231. <https://doi.org/10.1080/15374410802698396>
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335–343. [https://doi.org/10.1016/0005-7967\(94\)00075-u](https://doi.org/10.1016/0005-7967(94)00075-u)
- Madigan, S., Atkinson, L., Laurin, K., & Benoit, D. (2013). Attachment and internalizing behavior in early childhood: a meta-analysis. *Developmental Psychology*, 49(4), 672. <https://psycnet.apa.org/doi/10.1037/a0028793>
- Niu, G. F., Sun, X. J., Tian, Y., Fan, C. Y., & Zhou, Z. K. (2016). Resilience moderates the relationship between ostracism and depression among Chinese adolescents. *Personality and Individual Differences*, 99, 77–80. <https://doi.org/10.1016/j.paid.2016.04.059>
- Nolan, S. A., Flynn, C., & Garber, J. (2003). Prospective relations between rejection and depression in young adolescents. *Journal of Personality and Social Psychology*, 85(4), 745. <https://psycnet.apa.org/doi/10.1037/0022-3514.85.4.745>
- Omidvar, B., Bahrami, F., Fatehizade, M., Etemadi, O., & Ghanizadeh, A. (2014). Attachment quality and depression in Iranian adolescents. *Psychological Studies*, 59(3), 309–315.
- Overbeek, G., Vollebergh, W., Engels, R. C., & Meeus, W. (2003). Parental attachment and romantic relationships: Associations with emotional disturbance during late adolescence. *Journal of Counseling Psychology*, 50(1), 28.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/brm.40.3.879>
- Rawatlal, N., Kliewer, W., & Pillay, B. J. (2015). Adolescent attachment, family functioning and depressive symptoms. *South African Journal of Psychiatry*, 21(3), 80–85.
- Rudolph, K. D., Flynn, M., & Abaied, J. L. (2008). A developmental perspective on interpersonal theories of youth depression. In J. R. Z. Abela & B. L. Hankin (Eds.), *Handbook of depression in children and adolescents* (pp. 79–102). Guilford Press.
- Santrock, J. W. (2012). *Ergenlik*. Nobel Akademik Yayıncılık.
- Sarıçam, H. (2018). The psychometric properties of Turkish version of depression, anxiety stress scale-21 (DASS-21) in health control and clinical samples. *Journal of Cognitive-Behavioral Psychotherapy and Research*, 7(1), 19–30. <https://doi.org/10.5455/JCBPR.274847>
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Method of Psychological Research*, 8(2), 23–74.
- Schumacker, R. E., & Lomax, R. G. (2010). *A beginner's guide to structural equation modeling*. Taylor & Francis Group.
- Schwartz, O. S., Dudgeon, P., Sheeber, L. B., Yap, M. B., Simmons, J. G., & Allen, N. B. (2012). Parental behaviors during family interactions predict changes in depression and anxiety symptoms during adolescence. *Journal of Abnormal Child Psychology*, 40(1), 59–71. <https://doi.org/10.1007/s10802-011-9542-2>

- Shaver, P. R., Mikulincer, M., Sahdra, B. K., & Gross, J. T. (2017). Attachment security as a foundation for kindness toward self and others. In K. W. Brown, & M. R. Leary (Eds.), *The Oxford handbook of hypo-egoic phenomena* (pp. 223–242). Oxford University Press.
- Simon, E.P., & Baxter, L.A. (1993) Attachment-style differences in relationship maintenance strategies. *Western Journal of Communication*, 57(4), 416–430. <https://doi.org/10.1080/10570319309374465>
- Slavich, G. M., O'Donovan, A., Epel, E. S., & Kemeny, M. E. (2010). Black sheep get the blues: A psychobiological model of social rejection and depression. *Neuroscience & Biobehavioral Reviews*, 35(1), 39–45. <https://doi.org/10.1016/j.neubiorev.2010.01.003>
- Sund, A. M., & Wichstrøm, L. (2002). Insecure attachment as a risk factor for future depressive symptoms in early adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41(12), 1478–1485. <https://doi.org/10.1097/00004583-200212000-00020>
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. Pearson.
- Van Zalk, N., & Smith, R. (2019). Internalizing profiles of homeless adults: Investigating links between perceived ostracism and need-threat. *Frontiers in Psychology*, 10, 350. <https://doi.org/10.3389/fpsyg.2019.00350>
- Wang, J., & Wang, X. (2012). *Structural equation modeling: Applications using Mplus*. John Wiley & Sons.
- Wesselhoeft, R., Sørensen, M. J., Heiervang, E. R., & Bilenberg, N. (2013). Subthreshold depression in children and adolescents—a systematic review. *Journal of Affective Disorders*, 151(1), 7–22. <https://doi.org/10.1016/j.jad.2013.06.010>
- Williams, K. D. (2001). *Ostracism: The power of silence*. Guilford Press.
- Williams, K. D. (2007). Ostracism. *Annual Review Psychology*, 58, 425–452. <https://doi.org/10.1146/annurev.psych.58.110405.085641>
- Williams, K. D. (2009). Ostracism: A temporal need-threat model. *Advances in Experimental Social Psychology*, 41, 275–314. [https://doi.org/10.1016/S0065-2601\(08\)00406-1](https://doi.org/10.1016/S0065-2601(08)00406-1)
- World Health Organization. (2012). *Adolescent mental health*. Mapping actions of nongovernmental organizations and other international development organizations. Geneva: World Health Organization, http://apps.who.int/iris/bitstream/handle/10665/44875/9789241503648_eng.pdf;jsessionid=8D6289F124098DDA143418EF607342CC?sequence=1
- Yabko, B. A., Hokoda, A., & Ulloa, E. C. (2008). Depression as a mediator between family factors and peer-bullying victimization in Latino adolescents. *Violence and Victims*, 23(6), 727–742. <https://doi.org/10.1891/0886-6708.23.6.727>
- Yılmaz, V., & Çelik, E. (2005, 26-27 Mayıs). *Bankacılık sektöründe müşteri memnuniyeti ve bankaya bağlılık arasındaki ilişkinin yapısal eşitlik modelleriyle araştırılması* [Investigating the relation between customer loyalty to bank and customer satisfaction in banking sector with structural equality models]. II. Ulusal Ekonometri ve İstatistik Sempozyumu, İstanbul, Türkiye.
- Yolalan, H. (2013). *Ergenlerde depresyon ve bağlanma stilleri arasındaki ilişkinin incelenmesi* [Examining the relationship between depression and attachment styles in adolescents] [Yayınlanmamış yüksek lisans tezi]. Arel Üniversitesi, İstanbul.