

Full Length Research Paper

The attachment styles bases of loneliness and depression

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The purpose of this study was to investigate the predictive role of attachment styles on loneliness and depression. The sample consisted of 652 (313 females; 339 males) university students. Data were collected by using the relationship scales questionnaire, UCLA-R loneliness scale, and Beck depression inventory. To analyze data, Pearson product-moment correlation analysis and multiple regression analysis was employed. Attachment styles were found to be significantly correlated to loneliness and depression. A significant relationship was also found between loneliness and depression. A significant effect of attachment styles on loneliness and depression was detected.

Key-words: Attachment styles, loneliness, depression.

INTRODUCTION

A person's ability to have close relationships with other people is one of the most important features of a healthy personality. Close relationships influence the personal and social development processes of people considerably. From a perspective of attachment theory, the quality of one's closest relationships beginning in infancy set the stage for subsequent development. When these relationships are secure, they promote self-reliance, confident exploration of the environment, and resiliency in dealing with life's stresses and crises (Bowlby, 1979). On the other hand, lack of secure attachment can lead to difficulties in regulating emotions and relating to others, engendering a vulnerability to psychological distress, loneliness and depression (Ouellette and DiPlacido, 2001). Bowlby (1973) argued that the development of the attachment system is based on three propositions. First, children who are confident in their attachment figures' availability experience less chronic fear than those who are unsure. Second, such expectations about attachment figures are the product of repeated experiences during the sensitive period of childhood. After childhood, these expectations persist throughout the lifespan. Third, expectations accurately reflect the actual experiences of caregiver responsiveness and availability. Thus repeated experiences yield persistent expectations.

The attachment system, however, is more than accumulated expectations about caregivers. These

expectations are elaborated into comprehensive mental representations of both other people and the self called internal working models. The model of others and the model of the self are conceptualized as two orthogonal dimensions. The model of others ranges from believing others are either reliable and trustworthy or unwilling to commit themselves to relationships. The model of the self ranges from believing the self is either friendly, good-natured, and likable or misunderstood, unconfident, and underappreciated (Simpson, 1990).

The various types of internal working models produce predictable patterns of behavior, which are often termed attachment styles. Attachment is behavior evoked by closeness to or alienation from a selected and/or distinguished individual. Attachment behavior is not only a part of infancy but also is a part of childhood, adolescence, and adulthood. One of the main principles of the attachment theory is its continuity throughout the individual's lifelong journey (Bowlby, 1980). The early prototypical model of attachment has three categories: secure, avoidant, and anxious/ambivalent. The secure style is comfortable being close to and mutually dependent on others. The avoidant style eschews such closeness with others, while the anxious/ambivalent style desires more closeness than others are typically willing to provide (Hazan and Shaver, 1987). One of the most interesting developments in attachment theory is the widespread adoption of a four-category model (Bartholomew

and Horowitz, 1991). This conceptualization is based on two orthogonal dimensions: image of the self and image of others. The resulting four categories can be interpreted in terms of the working model's positive-negative valence of these two dimensions. The secure style tends to see others and the self positively. The dismissing style sees others negatively but the self positively, corresponding to the earlier avoidant category. Where the earlier model had anxious/ambivalent as a single category, Bartholomew and Horowitz (1991) model splits it into two. The preoccupied attachment style is characterized by viewing the self negatively and others positively. This results in a striving for self-acceptance by attempting to obtain the acceptance of others. The fearful style has negative views of both the self and others (Bartholomew and Perlman 1994).

Not having a close attachment will influence attachment style. Loneliness and depression will be common among those with high attachment anxiety about abandonment, alternatively stated as a negative model of the self. This situation means that attachment style will account for significant variance in loneliness and depression. With attachment firmly established as the basis of loneliness in Weiss (1974) theory, testable hypotheses are more easily derived. People who lose their attachment figures, regardless of the reason, should experience loneliness. Among adults, a romantic partner is the most common form of attachment, though a "best friend" may also be an attachment figure. The absence of either should predict loneliness. Finally, the prevalence of loneliness should vary according to attachment style, with the insecure styles more likely to experience loneliness. Hazan and Shaver (1987) found that securely attached people experienced the lowest amount of loneliness, and people with an insecure -anxious/ambivalent- attachment style experienced the most. Russell et al. (1984) found that attachment (measured as a social provision) to be a very strong predictor of emotional loneliness.

Given the depiction of loneliness as a rather aversive and distressing state, the often-described link between loneliness and mental health problems is not surprising. Loneliness has been closely associated with depression (Hojat 1998). Loneliness has generally been associated with negative feelings about interpersonal relationships (De-Jong Gierveld 1987). Lonely people have been judged to be less interpersonally competent than people who are not lonely (Jones et al., 1985; Spitzberg and Canary 1985), and research has consistently shown a positive correlation among insecure attachment styles, loneliness, and depression (DiTommaso et al., 2003; Riggio, 1986; Riggio et al., 1993; Segrin 1993). Several authors (Hazan and Shaver, 1990; Kobak and Sceery, 1988) have also reported that the securely attached are significantly less likely than the insecurely attached to be negatively influenced by anxiety, loneliness, and depression. Insecurely attached individuals have the tendency to develop problems, such as depression, low

self-esteem, difficulty or inability in developing and maintaining relationships with others, poor problem solving skills, and an unstable self-concept.

A significant relationship between depression and insecure attachment styles has been also revealed by several contemporary studies. These studies suggest that insecure attachment styles appear to increase one's vulnerability to depressive symptoms (Bifulco et al., 2002; Reinecke and Rogers, 2001), and to increase the likelihood that an individual will become depressed (DiFilippo and Overholser, 2002; Scott and Cordova, 2002; West and George, 2002). Haaga et al. (2002) found that attachment style affects depression and suggests that insecure attachment is a stable factor for vulnerability to depression and not an artifact of current sad mood. Studies have shown that there exists a significant relationship between attachment styles and the worth that one attributes to self and others, the level at which one may perceive and openly communicate his/her feelings with others, one's ability to cope and to adjust, and several well established risk factors -such as depression; this suggests that an individual's attachment style may affect depression levels and reasons for living.

Attachment theory (Bowlby, 1980) was developed in part to explain the origins of depression and other psychological disorders. Adopting a diathesis-stress perspective, Bowlby (1988) claimed that increases in depressive symptoms should most likely occur when vulnerable people (those with certain insecure attachment orientations) experience stressors that test and strain their relationships. Such experiences can increase depressive symptoms by enhancing negative beliefs about the self (as being someone unworthy of love and support) or by accentuating negative beliefs about others (as being unloving and unsupportive partners).

Research shows that insecurely attached people are, in fact, more prone to depression and depressive symptoms. In studies in which attachment has been assessed with the adult attachment interview (AAI) (Main and Goldwyn, 1994), unipolar depression tends to be more prevalent among psychiatric patients classified as preoccupied (a category conceptually related to the anxiety/ambivalence attachment dimension) than among patients classified as secure (Cole-Detke and Kobak, 1996; Fonagy et al., 1996; Rosenstein and Horowitz, 1996). It also is more common in persons classified as dismissive on the AAI (a category conceptually related to the avoidance attachment dimension) than in those classified as secure (Patrick et al., 1994).

Depression and depressive symptoms are also more prevalent in people who report being more insecure on self-report romantic attachment scales. Avoidant and anxious-ambivalent persons, for instance, score higher on a DSM-IV measure of major depressive episodes than do secure people (Mickelson et al., 1997). As a rule, anxious-ambivalent persons report the highest levels of depressive symptoms, secure individuals report the

lowest, and avoidant persons fall in between (Cooper et al., 1998). Viewed together, these studies indicate that people with insecure attachment orientations -particularly those who are fearful, preoccupied, and dismissing- are at increased risk for depressive symptomology. The prevalence of depressive symptoms varies across different populations. Specially, depressive symptoms are frequent among university students all over the world and their prevalence appears to be increasing (Adewuya et al., 2006). The "Turkey Mental Health Profile Project" reported that depression was among the most frequently seen mental illnesses (Erol et al., 1998), and the prevalence of depressive symptoms in Turkish university students varied between 10 and 40% (Kuey et al., 1987; Toros et al., 2005; Yavas et al., 1997). Another study in the mid 1990s specified the prevalence rate at 34.5% (Ustun and Kessler, 2002), indicating an increase in depression among young adults in Turkey in the second half of the 1990s. It can be speculated that changing environmental factors in the second half of the last decade negatively affected the psychological well-being of young people in Turkey.

Finally, attachment styles are an important factor that affects interpersonal relationships, while loneliness and depression are indicators of adaptation difficulties in such relationships. The aim in conducting this research was to determine the relationships among attachment styles, loneliness, and depression.

METHODOLOGY

Participants

This study is a survey within the context of descriptive method. The participants in the study were 652 (313 females, 339 males; from years 1 to 4; $M=22.35$ years, $SD=1.55$) randomly selected undergraduate students studying in different departments -Early Childhood Education, Primary School Education, Science Education, Social Studies Education, and Turkish Language Teaching- of the Faculty of Education at Mugla University.

Instruments

Relationship Scales Questionnaire (RSQ) The RSQ contains 30 short statements drawn from Hazan and Shaver's (1987) Attachment Measure, Bartholomew and Horowitz (1991) relationship questionnaire, and Collins and Read (1990) adult attachment scale. On a 7-point scale, participants rate the extent to which each statement best describes their characteristic style in close relationships. The RSQ was designed to measure four different attachment styles (secure, fearful, preoccupied, and dismissing). The RSQ was translated into Turkish, reliability, and validity studies of the scale were carried out with a Turkish sample of 123 students by Sumer and Gungor (1999). The result of the construct validity study, using principal component analysis with varimax rotation, showed that the instrument had two identifiable dimensions with eigenvalues over 1. The first factor explaining 42%, the second factor 27% and both factors explaining the 69% of the total variance. The secure and fearful attachment styles were

loaded in the first factor with factor loadings between 0.76 and 0.87 respectively. In the second factor, preoccupied and dismissing attachment styles were loaded with factor loadings between 0.89 and 0.56, respectively. In their study, Sumer and Gungor (1999) carried out a reliability analysis and found that the test-retest correlation coefficients ranged between 0.54 and 0.78. A cross-cultural comparison with a U.S. sample was also made by Sumer and Gungor (1999). In this study, Cronbach's alpha for the secure, fearful, preoccupied, and dismissing subdimensions were calculated 0.78, 0.76, 0.69, and 0.62.

University of California Los Angeles Loneliness Scale (UCLA-R) The UCLA-R Loneliness Scale developed by Russell et al. (1978), revised by Russell et al. (1980), and adapted to Turkish participants by Demir (1990) was used to measure the loneliness levels of students. The 20-item scale consists of self-relevant statements that respondents answer on a four-point scale, from 1 (not at all) to 4 (frequently). Half of the item measures are worded to indicate a high level of loneliness, while the other half is worded in the opposite direction, requiring these to be reverse scored. Each participant's scores are averaged across the 20 items, so scores range from 1 (low loneliness) to 4 (high loneliness). The reliability coefficient of the scale was calculated as 0.94 by the re-test method and the Cronbach's alpha reliability coefficient of the scale was found to be 0.96. The parallel form validity of the scale was tested with the Beck Depression Inventory (Beck et al., 1979) and the correlation coefficient was found to be 0.77 (Demir 1990). In this study, Cronbach's alpha for the scale was calculated 0.88.

Beck Depression Inventory (BDI) The BDI (Beck et al., 1979) measured the intensity of depressive symptoms in both the depressed and normative samples. The BDI is a 21-question multiple-choice self-report inventory that is one of the most widely used instruments for measuring the severity of depression. The inventory adapted to the Turkish culture by Hisli (1988) was used to determine the depression levels of individuals. Each of the 21 items in this inventory consists of four statements or gradations of intensity of the symptom. Items are rated on a 4-point scale and the items are summed to obtain a total depression score. The BDI has good internal consistency, test-retest reliability, convergent and discriminant validity. The reliability coefficient of the BDI was calculated as 0.85. The BDI is widely used as an assessment tool by healthcare professionals and researchers in a variety of settings. In this study, Cronbach's alpha for the scale was calculated 0.81.

RESULTS

In this study, the analysis of relationships among attachment styles, loneliness, and depression was performed by Pearson Product-Moment Correlation analysis and multiple regression analysis. The data were investigated from the point of erroneous or missing values, outlier values, and multicollinearity in data analysis. The values considered to be entered erroneously were corrected in the erroneous values analysis. In the missing values analysis, randomly remaining very few blank items were assigned values by expectation-maximization algorithm. In the outlier analysis, 14 observations, which have Mahalanobis (1936) distance value greater than the $\chi^2_{9;.001}=27.87$ table value, were excluded from the data set. The low level bivariate correlation values show that there is no multicollinearity among the independent variables. It has been seen that Variance Inflation Factor value is less than 5, the tolerance value is greater than 0.20, the

Table 1. Correlations among attachment styles, loneliness, and depression.

Parameter	Secure	Fearful	Preoccupied	Dismissing	Loneliness
Loneliness	-0.41**	0.44**	0.40**	0.23*	-
Depression	-0.37**	0.41**	0.38**	0.20*	0.49**

* $p < 0.05$; ** $p < 0.01$.

Table 2. Prediction of loneliness by attachment styles.

Model	R	R ²	F	t
Loneliness	0.42	0.176	21.093***	
Secure				-3.903***
Fearful				4.088***
Preoccupied				3.842***
Dismissing				2.786**

** $p < 0.01$; *** $p < 0.001$.

condition index is less than 30, and consequently 652 observations remain in the data set.

Correlations among attachment styles, loneliness, and depression

The relationship among attachment styles, loneliness, and depression level of university students was tested by using Pearson correlation analysis techniques and results are given in Table 1.

As shown in Table 1, there is a significant negative relationship between loneliness and secure attachment style ($r = -0.41$, $p < 0.01$). On the other hand, a significant level of positive relationship between loneliness and fearful ($r = 0.44$, $p < 0.01$), preoccupied ($r = 0.40$, $p < 0.01$), and dismissing ($r = 0.23$, $p < 0.05$), attachment styles was found. A significant negative relationship between depression and secure attachment style ($r = -0.37$, $p < 0.01$) was found. On the other hand, a significant level of positive relationship between depression and fearful ($r = 0.41$, $p < 0.01$), preoccupied ($r = 0.38$, $p < 0.01$), and dismissing ($r = 0.20$, $p < 0.05$), attachment styles was found. In addition, there is a significant positive relationship between loneliness and depression ($r = 0.49$, $p < 0.01$).

The prediction of loneliness by attachment styles

A multiple regression analysis was performed to predict loneliness by attachment styles and the results are given in Table 2.

Table 2 shows that loneliness is significantly predicted by attachment styles ($R = 0.42$, $R^2 = 0.18$, $F = 21.093$,

$p < 0.001$). Four attachment styles explained 17.6% of the total variance in loneliness. According to results of a t test that was intended to determine which attachment styles predict loneliness, it was found that secure ($t = -3.903$, $p < 0.001$), fearful ($t = 4.088$, $p < 0.001$), preoccupied ($t = 3.842$, $p < 0.001$), and dismissing ($t = 2.786$, $p < 0.01$) attachment styles were significant predictors of loneliness.

The prediction of depression by attachment styles

A multiple regression analysis was performed to predict depression by attachment styles and the results are given in Table 3.

Table 3 shows that depression is significantly predicted by attachment styles ($R = 0.39$, $R^2 = 0.15$, $F = 18.863$, $p < 0.001$). Four attachment styles significantly explained 15.2% of the total variance in depression. According to results of a t test that was intended to determine which attachment styles predict loneliness, it was found that secure ($t = -3.670$, $p < 0.001$), fearful ($t = 3.899$, $p < 0.001$), preoccupied ($t = 3.734$, $p < 0.001$), and dismissing ($t = 2.641$, $p < 0.01$) attachment styles were significant predictors of depression.

DISCUSSION

At the end of this study, it was found that there is a significant relationship among attachment styles, loneliness, and depression. According to this result, it can be said that the attachment styles are an important factor that affects interpersonal relationships and determines loneliness and depression level of individuals.

Table 3. Prediction of depression by attachment styles.

Model	<i>R</i>	<i>R</i> ²	<i>F</i>	<i>t</i>
Depression	0.39	0.152	18.863***	
Secure				-3.670***
Fearful				3.899***
Preoccupied				3.734***
Dismissing				2.641**

p* < .01; *p* < .001.

In the current study, a significant correlation between attachment styles and loneliness was detected. Loneliness was found to be positively correlated to fearful, preoccupied, and dismissing attachment styles, while it was negatively correlated to the secure attachment style. These findings mean that people who have secure attachment style are less lonely than other people. Secure individuals, who have both positive feelings about their relationships and themselves, and who possess both greater and more balanced interpersonal relationships. In addition, individuals who have a secure attachment style can easily express their emotions and give verbal or nonverbal cues. This enables them to easily establish and maintain interpersonal relationships and escape from loneliness. In contrast, insecure individuals who have mixed feelings about themselves and others appear to lack, or have an imbalance, of interpersonal relationships, which may hinder an adaptive transition to adulthood. The negative views of individuals who have fearful, preoccupied, and dismissing attachment styles reduce their communication skills in establishing and maintaining interpersonal relationships. For instance, fearful and preoccupied individuals, who have negative self and other views, may encounter the highest levels of adjustment difficulties, and display communication skills deficits characteristic of social avoidance. Insecure attachment contributes to poor peer relationships and social withdrawal which, in turn, contribute to loneliness. The maladaptive internal working models (Bowlby 1973) as operating to guide behaviour provides an explanation for the greater loneliness experienced by the insecure individuals.

Weiss (1973) stated that individuals who are unable to attach to other individuals will feel themselves lonely. Additionally, there are several studies which indicate that lonely individuals are classified as insecure. In the study carried out by Deniz, Hamarta, and Ari (2005) fearful, preoccupied and dismissing attachment styles are positively correlated to loneliness, while the secure attachment style is negatively correlated to loneliness. DiTommaso (1997) and DiTommaso et al. (2003) emphasized that the secure attachment style is negatively correlated to emotional and social loneliness, and other attachment styles are positively correlated to loneliness. The negative correlation between secure

attachment style and loneliness level can also be found in the study by Moore and Leung (2002) which supports current study's findings. The study by Nurmi et al. (1997) showed that pessimistic and avoidant emotional strategies of individuals are related to their loneliness for more than one year. Research findings of the study by Hazan and Shaver (1990) and Kobak and Sceery (1988) are also similar to current study's findings.

Research findings show that depression is negatively correlated to secure attachment style -which is a sense of self-worth and a trust that others will be available and supportive-, while it is positively correlated to the fearful, preoccupied and dismissing attachment styles. A significant relationship between depression and insecure attachment styles has been revealed by several contemporary studies. These studies suggest that insecure attachment styles appear to increase one's vulnerability to depressive symptoms (Bifulco et al., 2002; Reinecke and Rogers, 2001), and to increase the likelihood that an individual will become depressed (Difilippo and Overholser, 2002; Scott and Cordova, 2002; West and George, 2002). Haaga et al. (2002) found that attachment style affects depression and suggests that insecure attachment is a stable factor for vulnerability to depression and not an artifact of current sad mood. The insecure attachment styles are conceptually similar to the personality styles described by Blatt (1974) and Beck (1983) as vulnerability factors for the onset and maintenance of depression, one style focusing on interpersonal concerns and the other on achievement concerns. In sum, there is evidence that depressed persons have difficulties in their relationships with both intimates and nonintimates, and are generally less engaged in social activity. Undoubtedly, these patterns of problematic interpersonal functioning are complex and stem from a number of sources -for example attachment styles.

Those with a negative model of self, preoccupied and fearful individuals, have higher levels of depression than those with a positive model of self, secure and dismissing individuals. The findings that the preoccupied and fearful groups have higher levels of depression than the secure and dismissing groups are consistent with research with both university student and clinical samples. The findings of the current study support the idea that specific

manifestations of psychological disorders are more likely to occur in some attachment styles than in others. Specifically, those with a negative image of self, the preoccupied and fearful, are more vulnerable to psychological distress and depression. Kenny et al. (1993) have demonstrated that attachment has a direct effect on depression through its association with "view of self". Self-perceptions were shown to mediate the association between attachment and depression. Mikulincer (1995) found that secure people besides describing themselves in positive terms, also admitted negative self-attributes, exhibited a highly differentiated and integrated self-schema, and revealed relatively low discrepancies among the three domains of the self that is, actual, ideal and ought selves. The positive and balanced self-view allows secure people to explore both strong and weak points of the self and the coherent self-structure prevents them from being overwhelmed by distress because of failing to meet their ideal-ought standards.

Research findings also show that loneliness is positively correlated to depression. Loneliness is a factor in the development of depression. There is also an interaction effect between loneliness and depression. That is, loneliness can cause depression and depression can cause more loneliness. Previous studies have demonstrated positive correlations between depression and loneliness. Loneliness, described by Weiss (1973) as a gnawing chronic disease without redeeming features, has long been recognized as a strong correlate of depressive symptoms. Joiner and Rudd (1996) found that loneliness could be identified as both a risk factor for and a feature of depression and hypothesized that loneliness affects hopelessness. According to Rook (1984), "loneliness is defined as an enduring condition of emotional distress that arises when a person feels estranged from, misunderstood, or rejected by others and/or lacks appropriate social partners for desired activities, particularly activities that provide a sense of social integration and opportunities for emotional intimacy". In this manner, it can be said that, loneliness is an important predictor of depression. Empirical data suggests that loneliness is significantly correlated to depressive symptoms and numerous other negative outcomes. Lonely people have indicated that they are less happy, less satisfied, more pessimistic, and suffer from more depressive symptoms (Peplau and Perlman, 1982) than people who are not lonely.

In the study carried out by Pielage et al. (2005) individuals reported less intimacy in their relationship, they experienced more loneliness and depression, and they were less satisfied with their life in general. Copel (1988) suggests that loneliness can threaten feelings of personal worth and undermine confidence in the ability to develop and maintain interpersonal relationships. Thus, loneliness is being an important factor for depression. According to Lau et al. (1999) loneliness is a major

precursor depression, particularly and loneliness and depression may become more concrete and prevalent in late adolescence. Feelings of loneliness in late adolescents are typically associated with emotional distress and often predict later internalizing disorders such as depression. Research findings of the previous studies are similar to current study's findings.

The present results expand the attachment literature by providing empirical evidence that individuals who have an insecure attachment style -with high levels of attachment anxiety and attachment avoidance- not only have different deficits in their interpersonal relationships but also experience loneliness and depression through these different deficits. As a consequence, such individuals tend to use deactivating strategies to keep distant from others and are less likely to feel comfort in disclosing their feelings. They were also more depressed and more likely to use destructive behaviors in conflict situations. The present results suggest that attachment styles have a profound impact on the loneliness and depression of individuals and on their psychological state.

Several limitations of this study need to be considered when interpreting the results. First, attachment styles, loneliness, and depression, were assessed using self-report methods, which could lead to inflated relationships due to common source variance. A second limitation of this study is the use of a cross-sectional correlational design, which does not allow definite conclusions regarding the direction of the cause-effect relationships among attachment styles, loneliness, and depression. Namely, the cross-sectional nature of the study precludes drawing conclusions about the direction of relations among attachment experiences and the development of loneliness and depression. A final limitation is concerned with the generalizability of the findings to a more heterogeneous population of university students.

For further research, prospective longitudinal research is required to determine whether insecure attachment is predictive of loneliness and depression or instead that elevated levels of loneliness and depression foster insecure attachment beliefs. Prospective studies investigating the development of attachment patterns, loneliness, and depression may contribute more to our understanding of the interactions of the developmental factors from early childhood to adolescence. According to Cuhadaroglu et al. (2010) the decrease in the ratio of secure attachment styles in favor of insecure ones in time is a risk for future generations and constitutes an important point in preventive mental health planning for children and adolescents in Turkey. Developing programs for promoting the intact family structure and closer relationships between individuals may be one way of preventing this shift of attachment styles. Taking into account the findings of this study, in psychological counseling and guidance studies, it would be appropriate to include effective intervention programs that aim to improve university students' interpersonal problem

solving skills to decrease the level of loneliness and depression based on insecure attachment.

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