



Investigating the influence of attachment styles on anxiety sensitivity

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Abstract

The purpose of this study is to examine if there are significant relationships between anxiety sensitivity and attachment styles and to determine the predictability of anxiety sensitivity by attachment styles.

Descriptive method was used in this study. The study group is composed by 781 (379 females; 402 males) students studying in different departments of the Faculties of Education and Technical Education, and Department of Physical Education and Sports Teaching of School of Physical Education and Sports at Mugla University.

The data were collected using the Relationship Scales Questionnaire and Anxiety Sensitivity Index-R. Pearson Product-Moment Correlation analysis and multiple regression analysis was employed.

Attachment styles were found to be significantly correlated to anxiety sensitivity. A significant effect of attachment styles on anxiety sensitivity was detected.

Keywords: Anxiety sensitivity, attachment styles, university students

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Introduction

The construct of anxiety sensitivity was originally proposed by Reiss & McNally (1985) to explain data pertaining to the treatment of anxiety disorders (Reiss, 1999). It was presented as part of an expectancy theory of anxiety that endeavors to explain the psychological factors involved in human motivation to avoid a feared stimulus. Anxiety sensitivity, specifically, refers to a fear of experiencing anxiety and is considered by Reiss to be one of the “fundamental fears”, or main intrinsic motivators that guide human avoidance behavior. Anxiety sensitivity has been more specifically defined as the fear of anxiety-related bodily sensations, which is thought to arise from beliefs that these sensations have harmful somatic, social, or psychological consequences (Reiss, 1987, 1991; Reiss & McNally, 1985; Reiss, Peterson, Gursky, & McNally, 1986).

Research suggests that there are at least three basic dimensions of anxiety sensitivity: (a) fear of publicly observable anxiety reactions (e.g., fear of trembling, arising from beliefs that trembling will attract ridicule or rejection), (b) fear of cognitive dyscontrol (e.g., fear of concentration difficulties arising from beliefs that such difficulties are the harbingers of insanity), and (c) fear of somatic sensations (e.g., fear of palpitations arising from beliefs that cardiac sensations lead to heart attacks) (Taylor, 1999). Anxiety sensitivity refers to a person’s tendency to fear anxiety-related symptoms (for example, increased heart rate, sweating, muscle tension, headaches) due to the belief that there will be some negative outcome as a result of having those symptoms. For example, a person may fear being anxious because they think that others will view them in a negative light. Another person may fear having the anxiety symptom of having a headache or difficulties concentrating because they think this are a sign that they are “going crazy”. Finally, someone might fear having an increased heart rate because they believe that it will increase their risk for a heart attack (Taylor, 1999, 2000).

The expectancy model of fear (Reiss, 1987, 1991; Reiss & McNally, 1985) posits that anxiety sensitivity is one of three fundamental trait sensitivities (the others being sensitivities to illness/injury and to negative evaluation) that amplify an array of fear reactions and phobias. Accordingly, if one has a dispositional tendency to fear symptoms of anxiety, then there is an increased probability that the individual will fear and/or avoid a multitude of other stimuli (e.g., animals, hospitals, blood) and/or situations (e.g., social-evaluative situations, agoraphobic situations) (McNally & Lorenz, 1987; Reiss, Peterson, Gursky, & McNally, 1986). Several empirical investigations have provided support to this proposition (Taylor,

1993; Taylor & Rachman, 1992), indicating that individuals with high anxiety sensitivity, compared to those with lower levels, do have a greater tendency to fear numerous stimuli and/or situations.

It is thought that anxiety sensitivity develops early on in a person's life. There is even some evidence that anxiety sensitivity may be partly inherited from parents (Stein, Jang, & Livesley, 1999). However, it is generally thought that anxiety sensitivity largely develops from early experiences in life. For example, a child who sees his or her parents overreact with fear to sickness may begin to believe that certain normal bodily feelings (such as those connected with anxiety) are dangerous and threatening (Watt, Stewart, & Cox, 1998). In addition to genetic factors, and specific types of learning experiences, interpersonal factors may also play a role in the development of elevated anxiety sensitivity. In this context, attachment theory ensured the background for the study.

Attachment theory (Bowlby, 1969, 1973, 1980) argues that, from infancy, human beings strive to establish longlasting, meaningful connections to other significant humans. During the early years, primary caretakers -and their behavior towards the child (i.e., the caregiver environment)- assume a prominent role in the development of healthy attachments. Parental displays of sensitive and responsive behavior to the child's needs foster the development of a secure attachment (i.e., a model of self as valued and self-sufficient as well as a model of others as caring and trustworthy) and of perceptions of the parent as a safe haven in the ongoing exploration of the world and others. Thus, attachment theory argues that the quality of early attachments influences how an individual will later perceive others in interpersonal interactions. Parents who are not responsive and/or attuned to their child's needs put their child at risk for becoming insecurely attached (i.e., negative internalized models of self and others).

Both of these dimensions -models of self and others- have been primarily assessed through self-report questions regarding the individual's perception of interpersonal relationships (Brennan, Clark, & Shaver, 1998). By assessing the two dimensions, individuals can thus be classified into four different attachment styles. Specifically, the secure style indicates a positive model of self and positive model of others. These individuals thus rate themselves low in anxiety about rejection because of personal unworthiness and low in interpersonal distrust. The preoccupied style indicates a negative model of self but a positive model of others (i.e., high in anxiety about rejection by others because of personal unworthiness but low in interpersonal distrust and avoidance of others). The fearful style is

characterized by a negative model of self and a negative model of others (i.e., high in anxiety about rejection and personal unworthiness, high in interpersonal distrust and avoidance). The dismissive style indicates a positive model of self but a negative model of others (i.e., low in anxiety about rejection because of personal unworthiness, high in distrust and avoidance of others). Although secure attachment is considered to be a protective factor, insecure attachment has been found to be associated with psychopathology (Bartholomew & Horowitz, 1991; Bartholomew & Perlman, 1994; Mickelson, Kessler, & Shaver, 1997; Rutter, 1997).

In terms of the development of anxiety sensitivity, Weems, Berman, Silverman, and Rodriguez (2002) suggested that insecurely attached individuals may distort, selectively encode, and be more fearful of anxiety-related sensations because they think they are unable to help themselves or obtain help from others. Feelings of personal unworthiness and/or the interpersonal distrust of insecurely attached individuals may exacerbate feelings that anxiety sensations have severe negative consequences. For example, expectations that other people will be untrustworthy and rejecting could foster a sense that symptoms of anxiety will result in social censure. Moreover, if an individual feels that their symptoms of anxiety forebode negative psychological and physical consequences a sense of personal unworthiness or interpersonal distrust may heighten distress because they may feel they cannot help themselves or will not get help from others.

Researchers have also explored the relation between attachment and anxiety sensitivity, in part because of findings showing that insecure attachment predicts the development of anxiety disorders (Kobak, Cassidy, Lyons-Roth, & Ziv, 2006; Shaw, Keenan, Vondra, Delliquadri, & Giovannelli, 1997; Warren, Huston, Egeland, & Sroufe, 1997). Bowlby (1980) argued that parents who display threatening behaviors towards their child might put their child at risk for becoming an anxious adult. On the other hand, parents who display rejecting or hostile behaviors might put their child at risk for depression as adults. Based specifically on this theoretical framework, Scher and Stein (2003) examined the role of anxiety sensitivity in mediating the relation between experiences of parental threatening, rejecting, and hostile behaviors and current anxiety symptoms. Using retrospective reports in a sample of undergraduate students, the authors found that (1) perceived parental threatening behaviors emerged as the best predictor of overall anxiety sensitivity, (2) anxiety sensitivity mediated the relation between perceived parental threatening behaviors and both past and current anxious symptoms, and (3) fear of publicly observable symptoms mediated the relation between perceived parental threatening behaviors and current, not past, anxiety

symptoms. This study provides evidence that perceptions of negative parental behaviors during childhood, hypothesized to have a role in the development of insecure attachments, are related to anxiety sensitivity and anxious symptomatology in adulthood. Watt, McWilliams, and Campbell (2005) examined the relation between attachment styles and anxiety sensitivity in a non-referred sample of 226 undergraduate students and found that insecurely attached individuals reported significantly higher anxiety sensitivity levels than those with secure and dismissing attachment styles, and that the model of self-dimension was significantly related to the ASI (Anxiety Sensitivity Index) after controlling for trait anxiety. These studies are important in that they provide evidence for a significant relation between anxiety sensitivity and attachment styles in populations of adolescents and young adults.

Thus, the purpose of this study is to examine if there are significant relationships between anxiety sensitivity and attachment styles and to determine the predictability of anxiety sensitivity by attachment styles. The study attempts to give information about the relationships between anxiety sensitivity and attachment styles.

Methodology

Participants

This study is a survey within the context of descriptive method. The participants in the study were 781 (379 females, 402 males; from years 1 to 4; $M= 22.05$ years, $SD= 2.15$) randomly selected undergraduate students studying in different departments of the Faculties of Education and Technical Education, and Department of Physical Education and Sports Teaching of School of Physical Education and Sports at Mugla University in the 2009-2010 academic year.

Instruments

Anxiety Sensitivity Index-Revised (ASI-R) The ASI-R is a 36-item self-report questionnaire that assesses fear of anxiety-related sensations. Constituting an expansion of the ASI (Reiss, Peterson, Gursky, & McNally, 1986), participants are asked to respond on a 5-point Likert scale ranging from 0 to 4 the extent to which they agree with statements assessing their fears about normal anxiety reactions, such as the inability to concentrate, blushing, sweating, and increased heart rate. Scores range from 0 to 144 and are calculated by adding all the items. A factor analysis by Taylor and Cox (1998) suggested a Total Score and four subscales for the ASI-R, namely: (1) fear of cardiovascular symptoms (11 items; e.g., “It scares me when my heart beats rapidly”; $\alpha= .90$); (2) fear of respiratory symptoms (12

items; e.g., “It scares me when I become short of breath”; $\alpha = .92$); (3) fear of publicly observable anxiety reactions (7 items; e.g., “It is important for me not to appear nervous”; $\alpha = .78$); and (4) fear of cognitive dyscontrol (6 items; e.g., “When my thoughts seem to speed up, I worry that I might be going crazy”; $\alpha = .88$). Deacon, Abramowitz, Woods, and Tolin (2003) reported excellent internal consistency for the ASI-R in two college samples ($\alpha = .95$ and $.94$); Kim et al. (2004) reported test-retest reliability ($r = .82$) is for a 3-week period. The Turkish version of the ASI-R was adapted by Cakmak (2006) who reported an internal consistency coefficient of $.93$, and a test-retest reliability coefficient of $.83$. The parallel form validity of the ASI-R was tested with the Beck Depression Inventory (Beck, Rush, Shaw, & Emery, 1979) and State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970); $r = .49$ and $r = .62$. In this study, Cronbach’s alpha for the scale was calculated $.88$.

Relationship Scales Questionnaire (RSQ) The RSQ contains 30 short statements drawn from Hazan and Shaver’s (1987) Attachment Measure, Bartholomew and Horowitz’s (1991) Relationship Questionnaire, and Collins and Read’s (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 $-.76$ and $.87$ respectively. In the second factor, preoccupied and dismissing attachment styles were loaded with factor loadings between $.89$ and $.56$, respectively. In their study, Sumer and Gungor (1999) carried out a reliability analysis and found that the test-retest correlation coefficients ranged between $.54$ and $.78$. The parallel form validity of this scale was tested with the Relationship Questionnaire (Bartholomew & Horowitz, 1991) and the correlation coefficients varied between $.49$ and $.61$. In this study, Cronbach’s alpha for the secure, fearful, preoccupied, and dismissing subdimensions were calculated $.81$, $.77$, $.71$, $.62$.

Results

In this study, the analysis of relationships between anxiety sensitivity and attachment styles 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 few blank items were assigned values by Expectation-Maximization algorithm. In the outlier analysis, 17 observations, which have Mahalanobis (1936) distance value greater than the $\chi^2_{13;.001}=34.52$ 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 .20, the condition index is less than 30, and consequently 781 observations remain in the data set. Results are given below.

The Relationship Between Anxiety Sensitivity and Attachment Styles

The relationship between anxiety sensitivity and attachment styles was tested by using Pearson correlation analysis and results are presented in Table 1.

Table 1. The Correlations between Anxiety Sensitivity And Attachment Styles

	Secure	Fearful	Preoccupied	Dismissing
Anxiety Sensitivity	-.35**	.38**	.30**	.19*

*p< .05 **p< .01

Table 1 shows that anxiety sensitivity is positively related to fearful, preoccupied, and dismissing attachment styles, and negatively related to secure attachment style.

The Prediction of Anxiety Sensitivity by Attachment Styles

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

Table 2. The Prediction of Anxiety Sensitivity by Attachment Styles

	<i>R</i>	<i>R</i> ²	<i>F</i>	<i>t</i>
Anxiety sensitivity	.44	0.193	26.883***	
Secure				-3.302***
Fearful				3.483***
Preoccupied				3.008**
Dismissing				2.419*

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 2 shows that anxiety sensitivity is significantly explained by the attachment styles ($R=.44$, $R^2=.19$, $F=26.883$, $p<.001$). Four attachment styles significantly explained 19.3% of the total variance in anxiety sensitivity. According to results of a *t* test that was intended to determine which attachment styles predict anxiety sensitivity, it was found that secure attachment style ($t=-3.302$, $p<.001$), fearful attachment style ($t=3.483$, $p<.001$), preoccupied attachment style ($t=3.008$, $p<.01$), and dismissing attachment style ($t=2.419$, $p<.05$), were significant predictors of anxiety sensitivity.

Discussion

At the end of this study, it was found that there is a significant relationship between anxiety sensitivity and attachment styles. According to this result, it can be said that the attachment styles are an important factor that affects anxiety sensitivity level of individuals.

In this study, a significant correlation between attachment styles and anxiety sensitivity was detected. Anxiety sensitivity was found to be positively correlated to fearful, preoccupied, and dismissing attachment styles, while it was negatively correlated to the secure attachment style. Relatedly, Weems, Berman, Silverman, and Rodriguez (2002) found that insecurely attached individuals classified as preoccupied and fearful had significantly higher anxiety sensitivity scores than securely attached individuals. The authors also found that higher scores on the model of self-dimension (higher scores are indicative of a fearful and/or preoccupied attachment style) of the Experiences in Close Relationships (ECR; Brennan, Clark, & Shaver, 1998) questionnaire predicted ASI (Anxiety Sensitivity Index) scores even after controlling for anxiety symptoms as measured by the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1983). According to the two dimensional model of attachment, a fearful style indicates a negative model of self and a negative model of others

which is consistent with the idea that when an individual expects others to be rejecting and untrustworthy, it could lead them to feel as if their anxiety symptoms would lead to social disapproval. Fearful individuals' chronic sense of insecurity and distress, makes them more prone to perceive and interpret events as stressful which, in turn, seems to increase their vulnerability to experience psychological symptoms. And, when one has a negative view of themselves, they may feel they will not receive help from others when they show signs of anxiety, a worry which may heighten attention to bodily sensations.

Insecure attachment is characterized by a lack of trust of self and others. It would be reasonable to assume that their sense of unworthiness, intense fear of rejection and their longing for social contact can cause an attentional bias in insecure persons that keeps them highly alert for signs of disapproval by others. They are likely to interpret and evaluate events in ways that confirm their fears; information that is inconsistent with their negative beliefs and expectations about the helpfulness and supportiveness of others and their own resourcefulness is likely to be disregarded (Bartholomew & Horowitz, 1991; Collins & Read, 1994; Simpson & Rholes, 1994).

Insecure attachment can be seen as a risk factor leading to poor coping and maladjustment. The early attachment experiences of insecure persons are characterized by rejecting or inconsistent parenting which may hamper the development of inner resources necessary for successful coping with life-stressors (Bartholomew & Horowitz, 1991; Collins & Read, 1990; Mikulincer & Florian, 1998). Hence, it can be assumed that stressful events activate the attachment system and that attachment mediates the effects of the experienced stress on mental health. Secure attachment is thought to buffer the harmful effects of stressful circumstances on mental health, whereas insecure attachment can be seen as a risk factor for psychopathology. The role of stressful events factor that increases vulnerability to the development of psychological complaints as a consequence of stressful events.

Insecure attachments may be a risk factor for the development of later anxiety disorders (Bernstein, Borchardt, & Perwien, 1996; Manassis & Bradley, 1994). Within a developmental psychopathology framework, attachment theory has the potential to explain the development of psychopathology (Davila, Ramsay, Stroud, & Steinberg, 2005; Sroufe, Carlson, Levy, & Egeland, 1999). Insecure attachment does not cause psychopathology directly, but early childhood attachment, family context, and other social experiences may shape a person in such a way that certain developmental pathways are more likely to be

followed than others. Data show that insecure attachment is associated with anxiety symptoms in adolescents (Muris & Meesters, 2002; Muris, Meesters, van Melick, & Zwambag, 2001) and adults (Hankin, Kassel, & Abela, 2005; Safford, Alloy, Crossfield, Morocco, & Wang, 2004). Thus, insecure attachment dimensions may be a vulnerability for later anxiety and depressive symptoms (Davila, Ramsay, Stroud, & Steinberg, 2005). Regarding anxiety, anxious and avoidant attachment also predicted prospective changes in anxiety symptoms. These results are consistent with Hankin, Kassel, and Abela (2005) who found that insecure attachment predicted prospective changes in anxiety symptoms over two years. These findings suggest that insecure attachment may in fact act as a risk factor for anxiety symptoms.

Attachment theory proposes that children's level of anxiety is associated with the way in which they are attached to their caregivers (Bowlby, 1973). Research has, indeed, shown that early attachment relationships are predictors of fear and anxiety in later childhood. An exemplary study in this regard is that by Warren, Huston, Egeland, and Sroufe (1997) who examined whether insecurely attached infants develop more anxiety disorders during childhood and adolescence than infants who were securely attached. At 12 months of age, infants were classified as either securely, avoidantly, or ambivalently attached. When children reached 17.5 years of age, current and past anxiety disorders were assessed by means of an interview schedule. Results showed that insecurely attached children, in particular those who were ambivalently attached, more frequently displayed anxiety disorders than children who were securely attached.

In a sample of 280 young adolescents insecure attachment in adolescence was found to be related to higher levels of anxiety disorder symptoms as measured by adolescents' self-report as well as parental self-report (Muris & Meesters, 2002). Depression and anxiety are important outcomes of self and relationship schemata characterized by low trust in the responsibility and availability of primary attachment figures (i.e., insecure attachment styles) (Bowlby, 1969; 1980; Mickelson, Kessler, & Shaver, 1997; Murphy & Bates, 1997; Sato & McCann, 2000). For example, Murphy and Bates (1997) reported that depressed and non-depressed individuals differed dramatically in the distributions of attachment styles. Moreover, Muris, Meesters, van Melick, & Zwambag (2001) found securely attached adolescents reported lower anxiety and depression than insecurely attached adolescents.

These findings mean that 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.

Despite the contribution this investigation makes toward understanding the relationship between attachment and anxiety sensitivity, the study has several limitations. An important one is that the cross-sectional nature of this investigation precludes any causal inferences to be made about the pattern of relations found; thus, insecurely attached individuals may be a precursor to elevated anxiety sensitivity, the direction of the relation cannot be determined from the present methodology. It would be important to replicate these findings with larger samples, specifically to further elucidate the role of attachment and its relation to anxiety sensitivity. Longitudinal studies are needed to examine the role of insecure attachment and its influence on the development of the anxiety related sensations and the processes that lead to the elevation of anxiety sensitivity. In addition, the attachment framework may help extend understanding the development of anxiety sensitivity into other samples. Taking into account these important limitations, this study adds to the knowledge based on the origins of anxiety sensitivity and its suggested relation to attachment, results clearly show that insecure attachment is particularly important factor in anxiety sensitivity. In psychological counseling and guidance studies, it would be appropriate to include effective intervention programs that aim to increase university students' assertiveness and interpersonal functioning, and to reduce the level of anxiety sensitivity based on insecure attachment. For treating insecure attachment, schema therapy might be helpful as well (Young, Klosko, & Weishaar, 2003).

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