

Do Attachment Styles and Co-rumination Predict Marital and Emotional Distress?

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Abstract

Depression is a debilitating disorder, associated with a wide range of symptomatology and impairments in functioning, including in relationships. Marriage is a primary source of support for most adults and thus any stress within this relationship can exacerbate risk for depression. Although attachment styles and communication have been implicated as important risk factors for depression and marital distress, limited research to date has explored interactions. The current study investigated whether attachment styles and the communication style of co-rumination predicted emotional and relationship distress. Married individuals ($N = 198$) were recruited from Amazon's Mechanical Turk and completed questionnaires about attachment style, co-rumination, depression, anxiety, and relationship adjustment with their spouse. The hypothesized pathways between these variables were analyzed using structural equation modeling. Results indicated that specific attachment styles, but not co-rumination, significantly predicted emotional distress (i.e., depression and anxiety) and marital distress; however, not in the hypothesized direction. There was no evidence of gender moderation. As part of an exploratory analysis, content of co-rumination was also analyzed. Theoretical and clinical implications of these results are discussed as well as directions for future research.

Keywords: attachment style; co-rumination; gender; depression; marriage; relationship distress

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Do Attachment Styles and Co-rumination Predict Marital and Emotional Distress?

Depression is one of the most common forms of psychopathology worldwide and a major contributor to physical disease, mortality, and disability (Ferrari et al., 2013). Approximately 7.6% of Americans aged 12 and over experience clinically significant symptoms of depression (Pratt & Brody, 2014). Major depressive disorder (MDD) is characterized by symptoms of sadness, loss of pleasure or interest, changes to sleep and appetite, lack of energy and concentration, excessive feelings of guilt or worthlessness, and suicidal ideation for at least a two-week period (American Psychiatric Association, 2013). Rates of experiencing a subsequent depressive episode are estimated to be 50 to 60% after a first episode, and reach 90% after an individual has experienced a third episode (Liu & Alloy, 2010).

Depressed individuals experience significant functional impairments, with nearly 90% of people with severe depressive symptoms reporting difficulty with work, home, and/or social activities (Pratt & Brody, 2014). Depression is one of the leading causes of work-related disability and is one of the top contributors to employee absenteeism and loss of productivity (Greenberg, Fournier, Sisitsky, Pike, & Kessler, 2015). In terms of home life, parents who are depressed impact their children by increasing their risk for adjustment difficulties, namely depression, and spouses who are depressed report high levels of marital conflict (Downey & Coyne, 1990). Interpersonal relationships can suffer as individuals lose interest in social activities and interaction with others, withdraw or isolate from others, and seek reassurance from others due to feelings of guilt or worthlessness (American Psychiatric Association, 2013).

Depression is a multifactorial disorder, attributable to causes across cognitive, interpersonal, affective, behavioral, genetic, and biological domains (Kendler, Gardner, & Prescott, 2002). The etiological heterogeneity of depression makes it necessary to consider

multiple and cross-level mechanisms that contribute to the onset, maintenance, and recurrence of this disorder (Hankin, 2012). Among these risk mechanisms, stress—and interpersonal stress in particular—has been implicated as a major factor in this illness (Friedman, Clark, & Gershon, 1992; Hammen, 1991). One major interpersonal stressor that adults experience is marital distress (e.g. Whisman, 2007). Compared to those in happy marriages, adults who are experiencing distress with their spouse are significantly more likely to experience depressive symptoms. Some mediating factors that have been suggested to explain the association between marital distress and depression include attachment and communication styles (Feeney, 1994). In terms of communication, specific patterns of interaction have been demonstrated to predict depression. A recently proposed risk process, co-rumination, has been found to generate depressive and anxiety symptoms within a dyadic relationship (Rose, 2002). Despite this knowledge, co-rumination has not been explored in adult romantic relationships. Therefore, the present study aims to expand on current findings to investigate how attachment styles and the depressogenic communication style of co-rumination together impact marital distress and emotional distress.

To address this aim, I first review the literature on depression and stress, followed by a review of interpersonal theories of depression which specifically highlights marital distress. Next, I introduce attachment theory and explain relationship communication patterns that have been associated with relationship and emotional distress, including co-rumination. Finally, I review the connections among attachment, communication, marital and emotional distress and introduce study hypotheses.

Depression and Stress

The stress response has been inextricably linked to the onset and maintenance of depressive episodes (Friedman et al., 1992). There has been substantial evidence documenting

the bidirectional association between stress and depression: Diathesis-stress models posit that risk factors in the presence of stress produce psychopathology (Ingram & Luxton, 2005). In this way, stressful life events can predict the onset of initial and subsequent depressive episodes (Liu & Alloy, 2010; Michl, McLaughlin, Shepherd, & Nolen-Hoeksema, 2013). However, depressed individuals are not only passive respondents to their environment; they also take part in creating stressors. Stress generation models explain how depressed individuals create stress in their environment through depressogenic predispositions (Hammen, 1991). In these ways, depression is associated with higher levels of acute and chronic stress (e.g. Hammen, 2003) and is predictive of future stressful events (e.g. Liu & Alloy, 2010). Many prominent models of depression vulnerability are essentially diathesis-stress models, assuming that a stressor must be present to trigger a diathesis (Hammen, 2003). For example, the response styles theory (RST; Nolen-Hoeksema, 1991a) postulates that way an individual responds to his or her symptoms of depression influences the severity and duration of symptoms. According to the RST, rumination is one of the mechanisms that can prolong and exacerbate symptoms of depression. Rumination is defined as the passive and repetitive focus on the symptoms, causes, consequences, and meanings of one's depression (Nolen-Hoeksema, 1991a). Research has demonstrated that there are a multitude diatheses, including rumination, that are influential in the association between stress and depression.

From research on stress generation, a distinct pattern of stressors has been found for depression-vulnerable individuals: Stressors that are at least in part individually-generated events are referred to as *dependent*, while those that are randomly-occurring events which are out of an individual's control are called *independent* (Hammen, 1991). This literature also distinguishes *interpersonal* stress, which involves relationships and communication with others, and

noninterpersonal stress, which includes a wide range of stressors such as academic, occupational, or health stressors. Consistent with the stress generation perspective, the stressors most salient to depression risk are dependent stressors, in comparison with independent stressors, and interpersonal stress, in comparison with noninterpersonal stress (Hammen, 1991, 2003; Liu & Alloy, 2010). This difference has been emphasized in explaining the gender difference in depression—i.e., the higher prevalence of depression in women than men (Pratt & Brody, 2014)—as women tend to experience more interpersonal and dependent events than men (Hammen, 1991). It is noteworthy that females begin to have higher rates of depression than males starting at the age of 12. From that age, females continue to have significantly higher prevalence rates of depression at any point in the lifespan (Pratt & Brody, 2014). Thus, interpersonal and dependent stressors may be key to understanding both nonspecific and specific risk factors for this vulnerable population. Because of the salience of the interpersonal context in understanding depression risk, several theories have been developed to explain how individuals are impacted by and interact with their social environment in ways that make them susceptible to depression.

Interpersonal Theories of Depression

People are inherently social animals who use their emotions to help them navigate and maintain relationships (Diener & Seligman, 2002). When people are not able to effectively navigate their interpersonal relationships, they become at risk for developing emotional disorders, including depression. Interpersonal theories of depression have been developed in an attempt to explain the way in which depressed individuals or those at risk for developing depression interact with their social environment to exacerbate their symptomology (Coyne, 1976; Joiner & Coyne, 1999). An assumption of these theories is that depression is

fundamentally interpersonal in nature, and there is a substantial body of literature that implicates the role of interpersonal processes in the risk, maintenance, and treatment of depression (e.g. Hames, Hagan, & Joiner, 2013; Joiner & Coyne, 1999, p. 8).

There are numerous theories that describe the role of interpersonal processes have in eliciting other depressogenic risk factors. Several theories describe the stress-generating interpersonal processes, from the perspective of the stress-generation model (Hammen, 1991); for example, individuals who excessively seek reassurance from others about their decisions or self-worth may gain short-term support and comfort from others, but eventually elicit rejection, leaving them lonely and depressed (Coyne, 1976; Joiner & Coyne, 1999). The psychobiological theory of depression postulates that interpersonal stress imposed by social rejection elicits particular cognitive, emotional, and neurobiological responses that pose risk for depression (Slavich, O'Donovan, Epel, & Kemeny, 2010). In this way, being rejected by one's peers activates brain regions associated with emotional awareness, emotion regulation, and self-reflection. The cognitive vulnerability-transactional stress theory (Hankin & Abramson, 2001) attempts to integrate across findings from disparate areas of research, including cognitive, interpersonal, and genetic risk factors, to explain the emergence of gender differences in depression. This theory posits that the influences of stressors and cognitive and interpersonal vulnerability factors accumulate over time to enhance risk for depression, and there are multiple pathways which connect vulnerability factors, stress, and symptoms.

Marital discord and depression. Some interpersonal theories have focused specific relationships, including marriage. One of the foremost priorities for most adults is to have a satisfying marriage or long-term partnership (B. W. Roberts & Robins, 2000). Hence, when the stability of a partnership becomes threatened, the relationship can become a source of extreme

distress. Marital distress, or discord, is defined as a couple's experience of difficulties with communication, problem-solving, working together, and accepting one another (Jacobson & Christensen, 1996). There is a large body of literature that links a wide range of psychiatric disorders, including anxiety, mood, and substance use disorders, to marital distress (Whisman, 2007). Of these disorders, depression has been found to be one of the most common and potent emotional consequences of marital distress for both women and men (Hammen, 2003; Whisman, 2007). Marital distress has been found to have a profound impact on depression vulnerability: Spouses in unhappy marriages have up to a 25-fold increase in risk for clinical depression compared to spouses in happy marriages (O'Leary, Christian, & Mendell, 1993; Weissman, 1987). Poor marital quality and negative marital events have been identified as one of the primary predictors of depression onset and have been linked to depression causally (Christian-Herman, O'Leary, & Avery-Leaf, 2001; Coryell, Endicott, & Keller, 1992; Najman et al., 2014). Further, depressed spouses also have an increased risk for relationship distress (Davila, Bradbury, Cohan, & Tochluk, 1997; Najman et al., 2014). Thus, these findings highlight the interconnectedness between marital discord and depression and demonstrate their bidirectional effects.

Beach, Sandeen, and O'Leary (1990) proposed a marital discord model of depression to integrate the preponderance of social and clinical empirical evidence demonstrating the link between troubled spousal relationships and depression. This model highlights the importance of interpersonal stress processes and erosion of support. According to the model (Beach, Sandeen, & O'Leary, 1990), relationship issues are associated with *increases* in verbal and physical aggression, criticism and blame, and idiosyncratic marital stressors, as well as *decreases* in intimacy, support, and acceptance of emotional expression over time. One final assumption is

that changing the social context has an impact on depressive symptoms (Beach, 2014). Many interventions targeting the social context, such as couples-based cognitive therapy, integrative couples' treatment and behavioral marital therapy, are considered efficacious for the treatment of couple and family issues (Beach, 2014).

Interpersonal risk processes. In terms of specific factors that contribute to depression risk, several interpersonal processes have been implicated including social skill deficits, feedback seeking, and interpersonal styles (Hames et al., 2013). People who are depressed often exhibit a number of social skills deficits, including having poor eye contact, speaking less frequently and focusing on negative content. Individuals with these deficits have difficulty forming and maintaining friendships, which can lead to loneliness, social anxiety, and depression (Segrin & Flora, 2000). Another behavior that can lead to difficulty within relationships is when individuals engage in feedback seeking, or when individuals repeatedly seek information from others that confirms their self-concept whether that be positive or negative (Hames et al., 2013). Some individuals seek assurance that they are worthy and loved (i.e. excessive reassurance seeking; Coyne, 1976), and others solicit negative feedback about themselves to have a sense of control over their state (i.e. negative feedback seeking, or self-verification; Swann, Griffin, Predmore, Gaines, & Sherman, 1987). Finally, interpersonal styles that predict the whether an individual will develop depressive symptoms include: *interpersonal inhibition*, which is characterized by avoidance, withdrawal, and shyness; *dependency*, or sociotropy, which is defined as an excessive need to be in a relationship and please others, despite feeling perpetual doubt about the state of a relationship (Blatt, Quinlan, McDonald, & Zuroff, 1982); and *attachment styles*, which refers to the way an individual relates to others (Bowlby, 1969/1982).

In explaining the linkage between marital distress and depression, several mediating pathways have been suggested. Among them, interpersonal styles have been highlighted, namely attachment and communication styles (e.g. Gottman & Silver, 1999; Heene, Buysse, & Van Oost, 2005; Joiner & Coyne, 1999). In terms of attachment, spouses' insecure attachment styles, i.e., avoidant, anxious, and ambivalent, have been demonstrated to be risk factors for marital discordance and depression, while a secure attachment style has been demonstrated to be a protective factor (DeVito, 2014; Heene et al., 2005). The following sections will review these two influential factors, describing more broadly attachment theory and relationship communication styles, as well as their roles in emotional and relationship adjustment.

Attachment Theory

Attachment theory (Bowlby, 1969/1982) has been demonstrated to be a useful framework for understanding adult romantic relationships and emotional distress. This theory postulates that in early childhood, infants are hard-wired to display behaviors that elicit a protective response from caregivers. These behaviors are activated during times of stress or discomfort, especially when the infant is separated from a caregiver, and are dependent upon the caregiver's emotional availability and responsiveness to the child's needs. These behaviors, along with caregiver responses, form internal representations about the self, others, and the world, and are carried over into adulthood. Bowlby (1969/1982) described these internal representations as *internal working models*, or sets of expectations and beliefs of others' dependability and supportiveness. These beliefs serve as a guide for predicting and interpreting the behavior of others and for determining how to act in new situations (Main, Kaplan, & Cassidy, 1985). Although representations of the self and others may continue to evolve throughout the lifespan, attachment theory suggests that attachment styles formed in childhood through internal working models are relatively stable

(Bowlby, 1969/1982; Collins, 1996). Attachment measures have provided support for this stability (Fraley & Shaver, 2000).

Ainsworth and colleagues (Ainsworth, Blehar, Waters, & Wall, 1978) further examined this theory using an experimental procedure during which infants were separated from their mothers and left with a stranger. Upon the mother's return, the infants tended to show three specific patterns of responses: some infants were anxious upon separating from their mother but were happy when she returned; other infants were intensely distressed when upon their mother leaving and resisted contact with her when she returned; and others did not show any signs of distress as well as no interest in their mother when she returned. These responses were posited to correspond to three distinct styles of attachment: *secure*, *anxious-ambivalent*, and *avoidant*, respectively. Children with secure attachment use the caregiver as a source of support while stressed; children with anxious-ambivalent attachment make inconsistent attempts to gain support from the caregiver; and children with avoidant attachment do not make attempts to get support from the caregiver (Ainsworth et al., 1978).

Attachment theorists typically take a two-dimensional approach to understanding and measuring attachment styles (Bartholomew & Horowitz, 1991; Mikulincer & Shaver, 2003; Mikulincer & Shaver, 2007). Individuals who score low on these dimensions are considered to be securely attached. Someone who is securely attached is comfortable with intimacy, believes that they are lovable, and believe that others are generally accepting and responsive. An individual can be insecurely attached in a number ways, either by scoring high on the anxious dimension (preoccupied), avoidant dimension (dismissive-avoidant), or both the anxious and avoidant dimension (fearful-avoidant; Bartholomew & Horowitz, 1991). Avoidantly attached individuals are generally dismissive of intimacy because they want to protect themselves from

disappointment. They are uncomfortable becoming close to others, desire to keep an emotional distance, and cope through such strategies as denying help from others and maintaining independence (Cameron, Finnegan, & Morry, 2012; Mikulincer & Shaver, 2007). Anxiously attached individuals have a sense that they are unworthy or unlovable. While they have a strong desire to be close with others, they worry about their partner's availability. Their self-concept resides on the approval of others and they may cope with this through acceptance-seeking behaviors such as asking for reassurance. Fearful-avoidant individuals have both a sense that they are unlovable and a distrust of others. They have a desire for closeness but are hesitant to become attached because they are fearful of rejection, and thus their coping styles may vacillate between seeking approval and maintaining a distance with others (Bartholomew & Horowitz, 1991; Mikulincer & Shaver, 2007).

Attachment theory has been used as a framework to understand emotional and social functioning, especially within the context of adult romantic relationships (Fraley & Shaver, 2000). Secure attachment has been found to predict adaptive psychological and social adjustment, while insecure attachment predicts poorer psychological and social adjustment (for a review, see Cassidy & Shaver, 2006). Attachment style has been found to be a major contributor to symptomatology (Mikulincer & Shaver, 2012). Insecure attachment has been found to be predictive of both depressive symptoms and clinical depression (e.g. Cooper, Shaver, & Collins, 1998; Lee & Hankin, 2009). There is some evidence that this association can be considered within a diathesis-stress framework, wherein insecure attachment only relates to depression in the context of stressful life events (Hammen et al., 1995). For example, romantic conflict has been demonstrated to be a unique mediator of anxious attachment and depression, and daily

stress a mediator of anxious and avoidant attachment and depression (Eberhart & Hammen, 2010).

Recent research has suggested that the way attachment style influences depression risk is through its interaction with interpersonal behaviors, such as feedback-seeking (Hames et al., 2013). Attachment has been associated with many interpersonal indicators of adjustment, including the formation and maintenance of relationships, relationship and sexual satisfaction, and communication within relationships (Cozzarelli, Hoekstra, & Bylsma, 2000; Mikulincer & Shaver, 2007). Interpersonal variables that have been found to mediate the relation between attachment and depression include sociotropy, propensity to forgive, dysfunctional attitudes, and low self-esteem (Burnette, Davis, Greene, & Worthington Jr., 2009; Cantazaro & Wei, 2010; Lee & Hankin, 2009; Permuy, Merino, & Fernandez-Rey, 2010). Nevertheless, the conditions under which attachment is a risk factor for depression are still not fully understood, and research suggests their association might be more indirect than initially thought (Hames et al., 2013).

Relationship Communication

Along with attachment, relationship and emotional distress have been linked to partner communication. Overall, distressed couples have been found to communicate more negatively than nondistressed couples (Markman, Rhoades, Stanley, Ragan, & Whitton, 2010). Negative premarital communication is predictive of a number of negative relationship indicators, including adjustment issues within the first five years of marriage; steeper declines in relationship satisfaction over time; and divorce (Huston, Caughlin, Houts, Smith, & George, 2001; Markman et al., 2010). Based on the first five minutes of a couples' interaction alone, Gottman and Silver (1999) have been able to predict whether a couple will separate with 91% accuracy.

Gender-distinct patterns of communication styles have emerged for men and women (Beach, 2014; Gabriel & Beach, 2010; Heene et al., 2005). While communication patterns have been demonstrated to largely mediate the association between marital distress and depression for wives, findings suggest that they may only partially mediate this association for husbands (Feeney, 1994). Despite these promising findings, there is still uncertainty about whether there are gender differences in the way communication impacts marital distress (Gabriel & Beach, 2010). Research in the areas of depression and coping strongly suggests that there may be differences in the way that maritally-distressed couples communicate their negative feelings: Men tend to minimize, avoid conversation, and disengage; on the other hand, women tend to ruminate, confront, and display negative emotion (Gabriel & Beach, 2010; Nolen-Hoeksema, 1991a). These patterns of interaction likely permeate into conflict discussions within the relationship.

A number of negative interaction styles have been implicated in depression risk, including demand-withdrawal, hostility, avoidance, complaints, and lack of reciprocity (Du Rocher Schudlich, Papp, & Cummings, 2011; Heene et al., 2005). Also, depressed individuals tend to have a higher frequency of interruption, expression of negative feelings, criticism, and defensiveness, whereas their partners tend to be critical and negative toward the partner and the relationship (Benazon & Coyne, 2000). On the other hand, constructive communication (e.g., support, affection, resolution) has been found to be protective against marital distress and depression in spouses (Du Rocher Schudlich et al., 2011; Heene et al., 2005).

Co-rumination. One communication style implicated in depression risk that has not yet been explored in married couples is co-rumination. This risk factor crosses both cognitive and interpersonal realms due to its perseverative focus on problems and negative affect between two individuals. Co-rumination is a dyadic process during which both partners deal with stress by

excessively discussing, speculating, and rehashing problems, encouraging one another to talk about these problems, and dwelling on negative emotions (Rose, 2002). Co-rumination is conceptualized as a social manifestation of rumination as it entails dwelling and rehashing problems, and also has been purported to interfere with effective problem solving. While similar to emotional processing, this type of support seeking is different in its disproportional focus on negative affect and implicit social nature. This construct is composed of different domains, including: “frequency of discussing problems, focus on negative feelings, discussion of problems instead of engaging in other activities, encouragement of problem discussion by oneself or friend, discussing the same problem repeatedly, and talking about causes and consequences of problems as well as parts of the problem that are not understood” (Rose, 2002, p. 18332).

Rose (2002) postulated that co-rumination has two significant relationships: positive associations with both depressive symptoms and friendship adjustment. Dwelling on negative aspects of a situation has been demonstrated to relate to psychological maladjustment, e.g., rumination is a strong predictor of depressive symptoms (Nolen-Hoeksema, 1991a). Research has found that a ruminative focus on problems in conversation can lead to internalizing symptoms in either discussant, regardless who has initiated the dialogue (Rose, 2002). As such, co-rumination has been found to correlate both concurrently and prospectively with self-reports of depression and anxiety (Balsamo, Carlucci, Sergi, Klein Murdock, & Saggino, 2015; Calmes & Roberts, 2008; Hankin, Stone, & Wright, 2010; Rose, Carlson, & Waller, 2007; Starr & Davila, 2009; Stone, Hankin, Gibb, & Abela, 2011; White & Shih, 2012). Because of its overlap with self-disclosure, co-rumination has also been linked to positive friendship qualities and feelings of closeness (Calmes & Roberts, 2008; Rose, 2002; Rose et al., 2007; Starr & Davila, 2009). While co-rumination has been linked to higher reported friendship quality, some

maladaptive social consequences have been suggested such as depression and anxiety contagion effects (Schwartz-Mette & Rose, 2012).

Considering its important relationship with depression, co-rumination is proposed as one possible contributor to the gender difference in rates of depression because females tend to have higher rates of both co-rumination and depression than males (Nolen-Hoeksema, 1991a; Nolen-Hoeksema & Girgus, 1994; Rose, 2002). There has been some evidence to suggest that co-rumination may be more likely to lead to depressive symptoms in girls than boys (Calmes & Roberts, 2008; Rose, 2002; Stone et al., 2011). However, the majority of evidence suggests that co-rumination has a similar impact on emotional distress across gender (Dam, Roelofs, & Muris, 2014; Hankin et al., 2010; Nicolai, Laney, & Mezulis, 2013; Stone, Uhrlass, & Gibb, 2010).

Co-rumination has also been linked to stress (Boren, 2013; Bouchard & Shih, 2013; Byrd-Craven, Geary, Rose, & Ponzi, 2008; Byrd-Craven, Granger, & Auer, 2010; Murdock, Gorman, & Robbins, 2015; White & Shih, 2012). Discussing a problem by co-ruminating, particularly with a focus on negative affect, has even been associated with increased cortisol levels within 15 minutes (Byrd-Craven et al., 2008; Byrd-Craven et al., 2010). Research has suggested that co-rumination, stress, and psychopathology have transactional and accumulating influences (Hankin et al., 2010; Shapero, Hankin, & Barrocas, 2013). In this way, stress leads individuals to co-ruminate, co-rumination increases stress, and the product of these effects increases risk for psychopathology, specifically internalizing symptoms. Co-rumination had been found to particularly relevant in the context of interpersonal stressors, e.g., peer victimization or romantic stress, but not in the context of noninterpersonal stressors, e.g., academic or occupational stress (Bouchard & Shih, 2013; Hankin et al., 2010; Murdock et al., 2015; Nicolai et al., 2013; Shapero et al., 2013).

Only two studies have assessed co-rumination within a dating population. First, Calmes and Roberts (2008) assessed young adults' co-rumination within several relationships beyond same-sex peers (which is stipulated by the original measure; Rose, 2002), including co-rumination with a romantic partner. They found that women who co-ruminated with their closest friend were more likely to report depression, but co-rumination in relationships did not relate to psychopathology. Second, Starr and Davila (2009) examined how romantic experiences related to adolescent girls' self-reported co-rumination, depression, and social anxiety. Girls' co-rumination was positively associated with their level of romantic experiences, depressive symptoms, and positive ratings of friendship. Co-rumination and later depressive symptoms were positively related at high levels of romantic experiences and negatively related at low levels of romantic experiences. These findings allude to a negative impact of co-rumination for adolescent girls involved in romantic relationships, and a positive impact for those not involved. Being in a romantic relationship can be a stressful, emotional experience during this developmental period, and therefore places girls at higher risk of perseverating on problems in an attempt to cope. On the other hand, girls dealing with lower levels of stress may experience fewer consequences and achieve more benefits from co-ruminating (Starr & Davila, 2009).

Despite knowledge of the important association between co-rumination and relationships, little is known about how co-rumination relates to romantic relationships. Most research to date has focused exclusively on co-rumination in friendships. This may be attributable to the fact that the population most studied in the co-rumination literature is children/adolescents, when the primary attachment figure is likely to be friends, not romantic partners. The limited studies of co-rumination in adults have focused on relationships with roommates (Calmes & Roberts, 2008; Guassi Moreira, Miernicki, & Telzer, 2016) and co-workers (Boren, 2013). The relative

importance of certain types of relationships may differentially impact behavior changes over time, so relationships should be understood within the appropriate developmental context (Reis, Collins, & Berscheid, 2000). Because adults' primary attachment figures are generally their romantic partners, more research is needed to understand how co-rumination impacts depression within this relationship.

Attachment and Relationship Communication

Attachment has been postulated to manifest itself in different interpersonal processes. More specifically, attachment and communication have been found to have some intrinsic connections. In attachment theory, Bowlby (1988) described differences in the way that infants communicate depending on their style of attachment. Infants with secure attachment were more likely to communicate openly and directly with their mother, be emotionally expressive, make eye contact, and use more facial expressions than those with insecure attachment. The securely-attached infant maintained this style of communication whether content or distressed, while the insecurely-attached infants engaged in more restricted communication. For example, infants with avoidant attachment will communicate directly when content but not when distressed (Bowlby, 1988).

Consistent with the theorized stability of attachment throughout life, attachment dimensions have been found to have an impact on communication with important attachment figures in adulthood. Overall, compared to those with secure attachment styles, individuals with insecure attachment, i.e., avoidant and anxious styles, are less likely to provide support to their partners and seek support from them, are less expressive, are worse at resolving conflict, and are less socially skilled (Anders & Tucker, 2000; Mikulincer & Shaver, 2007). Insecure partners also perceive their partners' attempts at supportive communication more negatively than secure

partners (Collins & Feeney, 2004). In marital relationships specifically, attachment anxiety has been associated with increasingly negative patterns of communication, including argumentativeness and verbal aggression, for both men and women (Feeney, 1994; Weger Jr., 2006). On the other hand, partners who are high in avoidant attachment tend to readily withdraw from conflict (Creasey, Kershaw, & Boston, 1999), compromise less during conflict (Levy & Davis, 1988), and use tactics that escalate conflict (Creasey & Hesson-McInnis, 2001). Several partner interaction effects have also been demonstrated between attachment styles and communication. For example, in one study of heterosexual couples, husbands' and wives' anxiety and comfort with closeness predicted both husbands' and wives' negative conflict communication (Marchand-Reilly & Reese-Weber, 2005). Despite these findings, how attachment influences communication within close relationships is still not fully understood (Hames et al., 2013).

Attachment, Co-rumination, and Distress

Very few theorists have attempted to integrate the literature on cognitive and interpersonal vulnerability factors to describe the etiology of depression. Literature in this domain has emphasized the role of early attachment processes in the development of cognitive and interpersonal vulnerability (e.g., Hames et al., 2013; Hankin, Kassel, & Abela, 2005; Joiner & Coyne, 1999). These theories postulate that individuals who exhibit insecure attachment styles are more likely than those who exhibit secure attachment to have other risk factors that together increase one's risk of becoming depressed. Cognitive mechanisms that have been implicated as mediating the relation between attachment and depressive symptoms include dysfunctional attitudes and self-esteem (Hankin et al., 2005; J. E. Roberts, Gotlib, & Kassel, 1996). Some

interpersonal mechanisms that have been implicated are excessive reassurance seeking (Abela et al., 2005) and spousal support (Simpson, Rholes, Campbell, Tran, & Wilson, 2003).

Only two studies to date have explored the link between attachment, co-rumination, and distress: Dam et al. (2014) explored the extent to which adolescents' attachment security moderated the association between co-rumination and depression. They investigated three dimensions of attachment, including trust, communication, and alienation. The attachment dimension of communication had a moderating effect in that co-rumination and depressive symptoms were positively related when communication with others was low but not high. Therefore, adolescents who do not communicate often with peers may rely on their friends during times when they need to better understand their problems, but in a way that poses risk for psychopathology. Co-rumination was not associated with depressive symptoms when communication with peers was high, except for when controlling for trust. Thus, adolescents who do not have trustworthy peers (e.g., who respect their feelings) with whom they can communicate about problems are more likely to be depressed. It is noteworthy that there were no gender differences in this moderation, suggesting that attachment may have the same impact on co-rumination for girls and boys (Dam et al., 2014). Shapero et al. (2013) found that that insecure attachment styles—i.e., both anxious and avoidant attachment—and co-rumination had a role in generating stress. Namely, attachment and co-rumination proximally predicted increases in interpersonal stress. Over time, high levels of interpersonal stress contributed to elevations in depressive symptoms. Thus, these results suggest the utility of examining these risk processes together to better understand the development of depression.

Summary

Depression is a debilitating disorder, associated with a wide range of symptomatology and impairments in functioning (Pratt & Brody, 2014). Multiple risk factors have been implicated in the development of depression, which span the biopsychosocial model of disease causation and likely occur across a complex causal chain of events, with both proximal and distal causes (Kendler et al., 2002). Interpersonal stress has been implicated as a significant risk factor for depression. As such, interpersonal theories of depression, such as the marital discord model (Beach et al., 1990), have been developed in order to partially explain the etiology of depression (Joiner & Coyne, 1999). The marital discord model implicates two risk factors as being significant in the association between relationship distress and depression: attachment style and communication (e.g. Feeney, 1994). Attachment styles are stable expectations and beliefs which can manifest in how individuals behave in interpersonal relationships, including the way they communicate (Bowlby, 1988). There are a wide range of interpersonal communication styles linked to psychopathology. One style recently linked to the development of emotional distress is co-rumination, or excessively dwelling on problems and negative emotions within a dyadic context (Rose, 2002). Despite the significance of marital distress in depression, co-rumination has never been studied in the context of adult romantic relationships. Although there have been many studies documenting the relation between attachment and communication styles, only one study (i.e. Dam et al., 2014) has explored how attachment impacts co-rumination. Further, there is still uncertainty about whether and how gender differences are important to marital distress, communication, and specifically co-rumination (Beach, 2014; Dam et al., 2014; Gabriel & Beach, 2010; Rose, 2002).

Current Study

The present study investigated whether attachment style (a distal risk factor) and co-rumination (a proximal risk factor) were predictors of both marital distress and emotional distress, namely depression and anxiety. The study aimed to: (a) examine whether insecure attachment styles related to relationship communication, i.e., co-rumination; (b) determine whether insecure attachment styles predicted emotional and relationship distress; (c) explore whether co-rumination partially explained the relation between insecure attachment and distress; and (d) investigate the extent to which gender influenced these variables. More specifically, the current investigation tested the following hypotheses:

1. Insecure attachment (i.e., anxious and avoidant attachment), emotional (i.e., depression and anxiety) and relationship distress would be positively associated with one another.
2. Given the previous findings on co-rumination and relationship adjustment (e.g. Rose, 2002), co-rumination would be negatively associated with relationship distress. Further, co-rumination would be negatively associated with depression and anxiety. Finally, given this association with emotional distress, co-rumination will be positively related to both insecure attachment dimensions.
3. Consistent with previous research, there would be a gender difference in co-rumination (Rose, 2002) and emotional distress (McLean, Asnaani, Litz, & Hofmann, 2011; Pratt & Brody, 2014), with women reporting higher levels than men.
4. Both insecure attachment and co-rumination have been suggested as risk factors for both depression and anxiety (Hammen et al., 1995; Rose, 2002) and relationship adjustment (Mikulincer & Shaver, 2003; Rose, 2002). Co-rumination with a romantic partner would partially mediate the relation between insecure attachment styles (i.e., avoidant and

anxious attachment) and both emotional and relationship distress (see Figure 1 for a depiction of this hypothesized relationship). In this way, I believed that attachment style would be a distal factor and co-rumination would be a proximal factor to distress.

- I also predicted that there would be a gender moderating effect for the associations between co-rumination and distress (see Figure 2). As has been demonstrated in previous research (Feeney, 1994), I hypothesized that the negative effects of maladaptive relationship communication (i.e., co-rumination) on emotional/relationship distress would be more pronounced for women than for men. That is, there would be a stronger positive association between these variables for women than men.

5. This study also attempted to clarify the content of co-rumination. While Rose and colleagues (2014) used an observational study to investigate the specific microsocial processes involved in co-rumination, no research to date has examined the *content* of a dyadic problem discussion. The present study attempted to capture the nature of this type of problem discussion using both quantitative and qualitative methods.

In order to address these research questions, individuals who identified as being currently married were recruited and consented through an online data collection service. In order to measure each of the variables of interest, participants responded to a series of self-report questionnaires to assess current levels of depressive symptoms, anxiety symptoms, romantic relationship distress, co-rumination, and attachment. Data were analyzed using regression analyses for the first two study hypotheses, Analysis of Variance (ANOVA) for the third hypothesis, Structural Equation Modeling (SEM) for study's fourth and main hypothesis, and both frequencies and a content analysis for fifth, exploratory analysis.

Method

Participants

Participants were recruited from the popular online data collection service, Amazon's Mechanical Turk (MTurk). In SEM, samples of less than 200 observations are not recommended for models such as this which incorporate latent variables and are of moderate complexity because parameter estimates may be inaccurate (Boomsma, 1983; Marsh, Balla, & McDonald, 1988). Therefore, to ensure a satisfactory model structure of the study's principal SEM analysis, the aim was to recruit at least 200 participants. Participants were paid 50 cents for their participation. Individuals who indicated they were from the United States, over the age of 18, and currently married were invited to participate in this study. Further, other MTurk requirements were used to increase the likelihood of valid responses: participants were required to have an overall acceptance rating of 95 percent across all completed studies and have completed a minimum of 50 other tasks.

Two-hundred and twenty-six participants consented to take part in the study (25 individuals did not consent). Despite that the MTurk criteria was set to capture specific demographic characteristics, some participant data were excluded from the analysis for not meeting study criteria, including endorsing a relationship status other than currently married, $n = 7$, and being under the age of 18, $n = 1$. Further, there was a question included in order to target random responders. Several participants responded to this question in a way that indicated random responding, $n = 20$, and thus the final sample consisted of $N = 198$ individuals. Participants represented a wide range of demographic characteristics: Ages ranged from 22 to 70, $M = 39.60$, $SD = 10.67$. The sample was composed of 55.1% women, 44.4% men, and 0.5% transgender. The majority of the sample described themselves as heterosexual (93.9%) but all

other sexual orientations were represented. Participants reported that they have been married from 1 to 43 years and most indicated that they were currently living with their partner (97.5%). In terms of education, 45.5% said that they had Bachelor's degree. More than half of the sample reported that their household income was \$50,000 or less, but participants represented a range of socioeconomic backgrounds, with 12.6% reporting income over \$100,000. See Table 1 for a full description of sample demographic characteristics.

On average, participants reported minimal depressive symptoms, $M = 8.90$, $SD = 9.79$, and mild anxiety symptoms, $M = 11.21$, $SD = 13.24$. Participants indicated that overall they were not distressed in their marital relationship, but this average was just above threshold to discriminate between distress and nondistress, $M = 50.45$, $SD = 9.92$; *R-DAS Cutoff score* = 48. The same was true for participants' reports of consensus, satisfaction, and cohesion with their partner. The sample reported high levels of both avoidant attachment, $M = 3.28$, $SD = 1.04$, and anxious attachment, $M = 3.23$, $SD = 1.25$. The current sample had higher levels of avoidant attachment, $M = 2.87$, $SD = 1.27$, and lower levels of anxious attachment, $M = 3.64$, $SD = 1.33$, than a normative sample of married individuals (Fraley, 2013). Participants varied in their reports of co-rumination, but endorsed an average amount overall, $M = 81.13$, $SD = 21.79$. Men and women only differed on levels of co-rumination. A full description of the means, standard deviations, and ranges of study variables across participants can be found in Table 2. More information about gender differences is included in Table 3.

Mechanical Turk. The service coordinates the supply and demand of tasks that are referred to as human intelligence tasks (HIT; Paolacci, Chandler, & Ipeirotis, 2010). Individuals who complete these tasks are referred to as “workers” and those who post tasks are referred to as “requesters.” MTurk workers are compensated for their participation in tasks, with payment

beginning at \$0.01 and not exceeding \$1.00. There are several practical and technical advantages to using this data collection service, including making it simpler to run experiments by enhancing the speed of recruitment and by maintaining participant anonymity. While there may be some sample biases involved in obtaining participants through this service, MTurk provides a more diverse, heterogeneous participant pool than those normally obtained from a college or laboratory setting (Paolacci & Chandler, 2014). Further, tools exist to recruit desirable workers, such as only allowing participants to take part in the study if they have a high completion rate. Current estimates are that the majority of the MTurk sample is comprised of the following demographic characteristics: White (71.8%); male (53.9%); young ($M = 31.6$ years); currently employed (57.4% vs. 13.9%); and never married (60.3% vs. 31.2%) (Levay, Freese, & Druckman, 2016).

Measures

Demographics. A measure was created to assess basic demographic characteristics of the sample (see Appendix A). Items include asking about participants' gender, age, level of education, current relationship status and length, living situation with partner, number of children, sexual orientation, employment status, ethnicity, annual household income, and religious affiliation.

Attachment. The Experiences in Close Relationships Scale-Revised (ECR-R; Fraley & Shaver, 2000, see Appendix B) is an updated version of the Experiences in Close Relationships Scale (Brennan, Clark, & Shaver, 1998). The ECR-R is a widely-used measure which assesses individual differences in avoidant and anxious attachment styles. The ECR-R is a 36-item self-report that is rated on a 7-point scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). Some example items are: "I'm afraid that I will lose others' love," "My desire to be very close

sometimes scares people away,” “I prefer not to be too close to others,” and “I talk things over with others.” For the purposes of this study, the scale was used to assess how participants felt in emotionally intimate relationships in general, rather than only in their current marital relationship. Each participant receives scores on both avoidant- and anxious- attachment subscales. The ECR-R demonstrated excellent reliability in the current sample, $\alpha = .94$. Consistent with previous studies (Fraley & Shaver, 2000), the attachment-related anxiety and avoidance scales were strongly correlated, $r = .51, p < .01$.

Co-rumination. The Co-Rumination Questionnaire (CRQ; Rose, 2002, see Appendix C) is a 27-item self-report measure which assesses tendency to co-ruminate with close friends. Nine content areas are assessed: (a) frequency of discussing problems, (b) discussion of problems instead of engaging in other activities, (c) encouragement of problem discussion, (d) encouragement by a friend discussing problems, (e) discussing the same problem repeatedly, (f) speculation about causes of problems, (g) speculation about consequences of problems, (h) speculation about parts of the problem that are not understood, and (i) focusing on negative feelings. Participants rate these items on a 5-point Likert scale, which ranges from 1 (*Not At All True*) to 5 (*Really True*). Total possible scores range from 27 to 135, with higher scores indicating higher levels of co-rumination. Some sample items include “When we talk about a problem that one of us has, we try to figure out everything about the problem, even if there are parts that’s we may never understand;” and “When we see each other, if one of us has a problem, we will talk about the problem even if we had planned to do something else together.” The measure has demonstrated excellent internal reliability ($\alpha = .96$; Rose, 2002), which was consistent with the current sample, $\alpha = .95$. While the original measure was designed to assess co-rumination with close same-sex friends, the directions in this study were adjusted to ask about

co-rumination with a romantic partner. In the instructions, several examples of problems that couples may encounter were also added.

Relationship adjustment. The Revised Dyadic Adjustment Scale (RDAS; Busby, Christensen, Crane, & Larson, 1995, see Appendix D), derived from the original measure created by Spanier (1976), is a commonly-accepted measure of relationship adjustment used by researchers and clinicians. The RDAS is a 14-item scale and items are rated on a 0 to 5 scale in four separate sections (items 1-6: *Always Disagree* to *Always Agree*; 7-10: *Never* to *All the time*; 11: *Never* to *Every Day*; and 12-14: *Never* to *More Often*). This measure yields a total scale and three subscales: *dyadic consensus*—the degree to which individuals agree with their partner; *dyadic satisfaction*—the degree to which individuals feel satisfied with their partner; and *dyadic cohesion*—the degree to which individuals and their partner participate in activities together. The consensus subscale consists of six items (1-6), the satisfaction scale of four items (7-10) and the cohesion scale of four items (11-14). Higher scores on each of these scales indicate higher levels of relationship adjustment or nondistress, whereas lower scores indicate higher levels of relationship distress. Total scores can range from 0 to 70, with 48 being considered the cutoff score for differentiating between stress and nondistress. Some examples of items are, “How often do you and your partner quarrel?” and “Do you and your mate engage in outside interests together?” This measure has demonstrated sound psychometric properties, including internal consistency, split-half reliability, and criterion and construct validity (e.g. Busby et al., 1995; Crane, Middleton, & Bean, 2000). Further, reliability estimates have not differed by sexual orientation, gender, marital status, or ethnicity (Graham, Liu, & Jerzierski, 2006). In the current sample, all of the scales demonstrated good or acceptable reliability: total scale, $\alpha = .86$; consensus scale, $\alpha = .84$; satisfaction scale, $\alpha = .86$; and cohesion scale, $\alpha = .76$.

Emotional distress. The Beck Depression Inventory-I (BDI-I; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961, see Appendix E) and Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988, see Appendix F) were combined to create a measure of emotional distress. The BDI-I is one of the most widely used self-report instruments used for measuring depression. This measure consists of 21 items which assess participants' experiences of depressive symptoms, such as sadness, pessimism, sleep disturbances, and changes in appetite, in the past week. These items are rated on a 4-point Likert scale ranging from 0 to 3. Some examples include 0 (*I do not feel sad*) to 3 (*I'm so sad and unhappy that I can't stand it*) and 0 (*I don't get more tired than usual*) to 3 (*I am too tired to do anything*). A total score between 0-9 indicates normal range; 10-18 mild to moderate depression; 19-29 moderate to severe depression; and 30-63 severe depression (Beck, Steer, & Garbin, 1988). Numerous studies have demonstrated that the BDI-I has excellent psychometric properties, including internal consistency and construct and concurrent validity (e.g. Beck, Steer, et al., 1988). In the current sample, this scale demonstrated excellent reliability, $\alpha = .94$.

The BAI (Beck, Epstein, et al., 1988) was used to assess the cognitive and behavioral symptoms of anxiety experienced in the past month. Some sample items include "numbness or tingling," "feeling hot," and "fear of the worst happening." Participants rated each of 21 items on a Likert scale ranging from 0 (*Not at all*) to 3 (*Severely: I could barely stand it*). A total score between 0-7 indicates minimal anxiety; 8-15 mild anxiety; 16-25 moderate anxiety; and 26-63 severe anxiety. The BAI has demonstrated good psychometric properties, including high internal consistency, test-retest reliability, and concurrent validity (Beck, Epstein, et al., 1988). The BAI demonstrated excellent reliability in the current sample, $\alpha = .95$.

Content of co-rumination. As part of the exploratory analyses, both quantitative and qualitative methods were implemented to capture the content of couples' co-rumination. The Hassles Scale (Kanner, Coyne, Schaefer, & Lazarus, 1981; see Appendix G) contains a list of 119 hassles which include work, health, interpersonal, environmental, and practical issues. Some example items include, “troubling thoughts about your future”; “concerns about owing money”; “trouble making decisions”; and “concerns about health in general.” The measure also allows for participants to write in their own hassles. These items are typically rated according to their severity, with 1 being somewhat severe and 3 being extremely severe, but for the purposes of this study this scale was eliminated. The items were used for participants to rate the most likely topics of discussion during co-rumination with their partner. Participants were asked to think about the content of the problems that they generally discuss and to rank order the top three content areas that they discuss most frequently. The Hassles Scale (Kanner et al., 1981) has demonstrated excellent reliability and validity, and was found to be a better predictor of psychological symptoms than major life events. In addition to the rankings provided on the Hassles Scale, participants were asked to further describe each problem they ranked.

Procedure

The external HIT posted on MTurk had a link leading qualifying participants to a survey that was located on the site Qualtrics. All responses were kept anonymous and there was no way to link identifying information from MTurk to this survey. Participants first saw a statement explaining the purpose of the study, risks and benefits, and contact information for the researcher and the University of Kansas HSCL in case participants wanted to report any issues or ask any questions. Participants completed the demographic questionnaire, followed by the measures of attachment (ECR-R), co-rumination (CRQ), hassles (the Hassles Scale), relationship distress

(RDAS), depression (BDI), and anxiety (BAI). If participants did not consent, or indicated that they were not currently married or under the age of 18 on the demographics questionnaire, they were taken to the end of the study and did not get paid for their participation. Participants were also taken to the end of the study if their responses were indicative of random responding (a check was inserted into the CRQ). After completing the study, participants were presented with a debriefing statement which provided referrals for participants who may be in distress. Participants who completed the study were then directed to another website where they received a code that they could enter into MTurk for payment.

Results

Statistical analyses for the primary hypotheses were conducted using SPSS version 23.0.0.0 and MPlus version 7.31 (Muthén & Muthén, 2008). In order to test the study hypotheses, correlations, an independent samples *t*-test, and structural equation modeling (SEM) analyses were run. A series of structural equation models that include paths from attachment styles to relationship adjustment and emotional distress (i.e., depression and anxiety) were fit to the data. In order to determine whether there were hypothesized gender differences between co-rumination and types of distress, a multigroup structural equation model was conducted. First, parcel formation was established.

Parcel Formation

CRQ factor structure. Data were analyzed in terms of the three-factor structure model proposed by Davidson et al. (2014): “Rehashing” includes 15 items related to discussion of the aspects and implications of a problem, $\alpha = .97$; “Mulling” includes seven items describing a desire to repeatedly discuss problems, $\alpha = .88$; and “Encouraging Problem Talk” includes four

items related to the tendency to encourage others to focus on the problem at the expense of other activities, $\alpha = .83$.

ECR-R factor structure. Research supports a two-factor structure for the ECR-R (Fraley & Shaver, 2000). The first factor, “Anxious Attachment,” includes 18 items reflecting preoccupation with getting close to others and worry about whether others will reciprocate feelings, $\alpha = .94$. The second factor, “Avoidant Attachment,” includes 18 items reflecting difficulty getting close to and mistrust of others, $\alpha = .92$. These factors were used to create the latent variables Anxious Attachment, Avoidant Attachment, and Anxious by Avoidant Attachment.

RDAS factor structure. Several studies have supported the multidimensionality and hypothesized structure of this scale with distressed and nondistressed couples (Snyder, Heyman, & Haynes, 2005). Data were analyzed according to a three-factor structure (Busby et al., 1995): “Dyadic Consensus” includes eight items related to decision making, leisure, values, and affection; “Dyadic Satisfaction” includes four items related to stability and conflict, and “Dyadic Cohesion” includes four items related to activities and discussion.

Emotional Distress factor structure. The total scores from the measures of depression, i.e., BDI-I, and anxiety, i.e., BAI, were combined as separate factors to measure the latent variable of “Emotional Distress.”

Correlational Analyses

To test the first hypotheses—that insecure attachment styles, emotional and relationship distress would all be positively associated—correlation coefficients were computed (see Table 3). Anxious attachment had significant associations in the hypothesized direction with avoidant attachment, $r = .51, p < .01$; relationship adjustment, $r = -.49, p < .01$; anxiety, $r = .51, p < .01$;

and depression, $r = .56, p < .01$. Avoidant attachment had significant relationships in the hypothesized direction with relationship adjustment, $r = -.35, p < .01$; anxiety, $r = .38, p < .01$; and depression, $r = .45, p < .01$. Relationship adjustment was also significantly related to emotional distress in the hypothesized direction, i.e., anxiety, $r = -.45, p < .01$, and depression, $r = -.50, p < .01$. Anxiety and depression were associated in the hypothesized direction, $r = .68, p < .01$.

In terms of the second hypothesis, co-rumination was associated with relationship adjustment in the hypothesized direction, $r = .16, p < .05$. Co-rumination was significantly related to attachment styles, but in the opposite of the hypothesized direction: avoidant attachment, $r = -.32, p < .01$, and anxious attachment, $r = -.15, p = .05$, were negatively related to co-rumination. Co-rumination was not significantly related to anxiety, $r = -.02, p = .81$, or depression, $r = -.10, p = .16$.

To test the third hypothesis, i.e., whether there were gender differences in co-rumination and emotional distress, independent samples *t*-tests were used to compare means (see Table 4 for a full description of how all study variables varied by gender). There were gender differences in co-rumination, $t(197) = 2.00, p < .05$, but they ran contrary to the study hypothesis, with men, $M = 84.72, SD = 19.85$, reporting higher levels of co-rumination than women, $M = 78.58, SD = 22.76$. Exploratory analyses were conducted in order to assess whether a particular factor of co-rumination was driving this difference. The only factor that was significant was mulling, with men, $M = 23.24, SD = 5.33$, reporting significantly higher rates than women, $M = 21.41, SD = 6.68, t(1, 197) = 2.10, p = .037$. (Of note, gender differences in rehashing almost reached significance, $t(1, 197) = 1.94, p = .053$.) Men and women also did not differ in terms of age, $t(1, 197) = .837, p = .40$, length of current marriage, $t(1, 197) = -1.34, p = .18$, number of times

married, $t(1, 197) = 1.44, p = .15$, or number of children, $t(1, 197) = -1.62, p = .11$. In terms of symptomatology, women and men reported similar levels of anxiety, $t(196) = -1.11, p = .27$, and depression, $t(1, 197) = -.00, p = .99$.

To test the fourth and main study hypothesis, structural equation models were fit to the data. As described before, parcel formation was established and all six latent variables were included. First, confirmatory factor analyses were conducted for co-rumination and relationship adjustment. Next, the hypothesis that co-rumination with a romantic partner will partially mediate the relation between attachment and both relationship and emotional distress was tested. This model was tested first. Next, the prediction that there will be a gender moderating effect for the associations between co-rumination and distress were tested.

Measurement Model

After establishing a parcel formation, a CFA was conducted on the latent variables co-rumination and relationship adjustment. The measurement model was identified by fixing each of the latent factor's variances to 1.0. Due to nonnormality of the data (BAI: $W = .80, p < .01$; BDI: $W = .83, p < .01$; CRQ: $W = .98, p < .05$; ECR-Anxiety: $W = .97, p < .01$; RDAS-Total: $W = .96, p < .01$), maximum likelihood estimation was used. For co-rumination, the three-factor model generated an acceptable fit to the data, $\chi^2_{(3, n=199)} = 312.19, p < .001$; RMSEA = .00(.00-.00); CFI = 1.0; TLI = 1.0; SRMR = .00. The model accounted for at least 65% of the variance in each subscale (rehashing: $R^2 = .67$; encouraging problem talk: $R^2 = .67$; mulling: $R^2 = .70$). For relationship adjustment, the three-factor model generated an acceptable fit to the data, $\chi^2_{(3, n=200)} = 62.47, p < .001$; RMSEA = .00 (.00-.00); CFI = 1.0; TLI = 1.0; SRMR = .00. The model accounted for at least 28% of the variance in each subscale (consensus: $R^2 = .32$; satisfaction: $R^2 = .28$; cohesion: $R^2 = .49$).

Structural Models

After confirming the fit of the measurement model, several structural models were established. The primary hypothesized model was tested using a directional path of co-rumination as a mediator of attachment styles, i.e., anxious, avoidant, and the interaction of anxious and avoidant attachment, and both emotional distress and relationship adjustment (see Figure 1). Then, this model was tested with gender moderating co-rumination and both emotional distress and relationship adjustment (see Figure 2). Next, co-rumination was tested as an independent variable in the original model without gender moderation (see Figure 3). Finally, an exploratory analysis was conducted in which relationship distress was tested as a mediator between attachment and co-rumination and distress (see Figure 4).

Model with co-rumination as a mediator. The main hypothesis assessed whether co-rumination fully mediated the relationship between attachment and distress. This hypothesis was first modeled in a simple model without gender moderation. Autoregressive paths were created from the three subscales of the ECR-R to each subscale of the CRQ, and from each CRQ subscale to both subscales of the RDAS and symptomatology. For the attachment and emotional distress latent variables, the factor loadings were constrained in order to prevent problems with identification. The model generated an acceptable fit to the data, $\chi^2_{(55, n=199)} = 1293.24, p < .001$; RMSEA = .08 (.06–.11), $p < .05$; CFI = .97; TLI = .94; SRMR = .059. The unstandardized and standardized latent variable estimates along with the effects sizes of the latent variables are presented in Table 5. The structural model with unstandardized estimates is depicted in Figure 5. Attachment styles significantly related to co-rumination, which in turn related to emotional distress and relationship adjustment. These results suggest that co-rumination may be a significant mediator in the relation between attachment and distress.

Mediation model with gender moderation. The second main study hypothesis examined whether co-rumination fully mediated the relationship between attachment and distress, and whether gender was a moderator between co-rumination and distress. First, gender was tested in the model as a main effect. Autoregressive paths were created from the three subscales of the ECR-R to each subscale of the CRQ, and from each CRQ subscale and gender to both subscales of the RDAS and symptomatology. The model generated an acceptable fit to the data, $\chi^2_{(66, n=199)} = 1342.89, p < .001$; RMSEA = .08 (.06–.11); CFI = .96; TLI = .94; SRMR = .06. Next, gender was tested as an interaction with co-rumination. Autoregressive paths were created from the three subscales of the ECR-R to each subscale of the CRQ, and from each CRQ subscale and the interaction between the CRQ and gender to both subscales of the RDAS and symptomatology. The model generated a poor fit for the data, $\chi^2_{(77, n=199)} = 1930.483, p < .001$; RMSEA = .23 (.21–.24); CFI = .73; TLI = .58; SRMR = .16.

Because the gender moderation model was not significant, this model was not compared with the primary hypothesized model. The gender main effect model was compared to the model without gender. These models demonstrated significantly different fit, $\Delta\chi^2 = 4.51, p < .05$, with the larger, more simplistic model being a better fit to the data. Therefore, there was discriminant validity between the two proposed structural models. These results suggest that co-rumination significantly mediated the relationship between attachment and distress, but gender did not help to better account for this relationship.

Model with co-rumination as an independent variable. Because the relation between co-rumination and the outcome variables was nonsignificant, the model was re-specified with co-rumination as an independent variable. Autoregressive paths were created from the three subscales of the ECR-R and the CRQ to the subscales of the RDAS and symptomatology. For

the attachment and emotional distress latent variables, the factor loadings were constrained in order to prevent problems with identification. The model generated an acceptable fit to the data, $\chi^2_{(55, n=199)} = 1293.24, p < .001$; RMSEA = .08 (.06–.11), $p < .05$; CFI = .97; TLI = .94; SRMR = .059. The model accounted for 59.3% of variance in relationship adjustment and 62.3% of variance in emotional distress. The unstandardized and standardized latent variable estimates along with the effects sizes of the latent variables are presented in Table 6. The structural model with unstandardized estimates is depicted in Figure 6.

The model estimates between this model and the mediation model without gender were identical. In this regard, co-rumination explains variance in the outcome variables in addition to attachment, but does not add significantly more to the model as a mediator. The goal was to find the best model for the data, which is why this simpler model was tested. Therefore, the model with co-rumination included as an independent variable best explains the relationship between attachment orientation, co-rumination, and both relational and emotional distress.

Model with relationship distress as a mediator. Co-rumination and attachment have been implicated in the process of stress generation (e.g., Hankin et al., 2010; Shapero et al., 2013). For exploratory purposes, the model was re-specified assessing relationship distress as a mediator between the interpersonal variables and emotional distress. Autoregressive paths were created from the three subscales of the ECR-R and the CRQ to the subscales of the RDAS, and from the subscales of the RDAS to symptomatology. For the attachment and emotional distress latent variables, the factor loadings were constrained in order to prevent problems with identification. The model generated an acceptable fit to the data, $\chi^2_{(55, n=199)} = 1293.24, p < .001$; RMSEA = .08 (.06–.11), $p < .05$; CFI = .97; TLI = .94; SRMR = .059. The model accounted for 59.3% of variance in relationship adjustment and 69.4% of variance in emotional distress. The

unstandardized and standardized latent variable estimates along with the effects sizes of the latent variables are presented in Table 7. The structural model with unstandardized estimates is depicted in Figure 7.

In terms of model fit, the estimates are the same as the simpler model described previously, which included co-rumination and attachment as independent variables. Notably, this model described a larger amount of variance in emotional distress than did the previous model. Standardized coefficients support a case for relationship distress significantly mediating the paths between anxious attachment and emotional distress as well as anxious by avoidant attachment and emotional distress, when controlling for avoidance and co-rumination. The pathway from co-rumination to relationship adjustment approaches significance, $p = .09$. While notable, standardized estimates should be interpreted with caution (e.g., Kline, 2011). Ultimately, the model with co-rumination as an independent variable is the best fit for the data.

Content Analysis

To evaluate the content of co-rumination, both quantitative and qualitative data were analyzed. A missing value analysis was conducted to evaluate the most frequent responses on the Hassles Scale (see Table 8). Among the top rated problems discussed among partners were, in order of most to least frequent: “financial security,” $N = 38$, 19%; “concerns about owing money,” $N = 35$, 17.5%; “health of a family member,” $N = 33$, 16.5%; “problems with children,” $N = 31$, 15.5%; and “not enough money for housing,” $N = 25$, 12.5% (see Table 8 for more information). Similar themes emerged as part of a content analysis, most of which concerned financial issues, health issues, and problems with children. Of note, these issues were frequently overlapping, e.g., problems with children included issues sourcing a child’s college fund, as is

demonstrated in the subsequent examples. Also of note, some participants did not further describe their problems or indicated that they declined to respond.

Financial problems. The category of financial concerns was the most commonly discussed and also the most nuanced. Issues included financial and job security, paying bills, and saving and managing money. Some participants expressed concern with their financial security: “Financial Security: Our house needs many repairs, but we don't have the money to fix anything”; “Neither one of use are in jobs that we want to be in in the future. If we leave our jobs, our financial security gets worse. We are okay now, in that we're not homeless, but we're worried about being unable to save”; “My [husband's] job is touch and go so we discuss job security a lot”; and “Neither of us is presently working.” Some participants reported having difficulty paying bills on a regular basis, for e.g.,

Money seems to be the root of all our problems. Not enough money for house repairs or extras. How are we going to put our kids through college, one child is going to be graduating high school in a year. Not having enough to pay bills if he loses his job, it is scary.

In terms of saving money, several participants expressed worry about the future: Further, other participants expressed concern with managing finances, e.g., “Our income isn't great and my husband is always putting us in financial dire straights [sic].” Interestingly, one participant verbalized the act of co-ruminating about finances:

Money is tight all the time it seems and it is an almost constant topic of stress for us. It seems like my husband and I talk a lot about financial issues a lot, almost as if when we talk we reduce the stress we feel about it even though we aren't really doing anything about it.

Health problems. The other major theme that emerged was discussion of problems about a spouse, child, parent, or one's own health issues. Subthemes were issues with sexual intimacy, age-related health concerns, and being a caregiver to a spouse or parent. Participants referring to their own health discussed both physical health issues, e.g., "Between work and physically not feeling well, I just don't have the energy I used to. I can't seem to get everything I want or need to do done these days, and that's frustrating," and mental health issues, e.g., "I suffer with post traumatic stress, and very bad intense flashbacks of sexual abuse I suffered as a child... This affects our sexual life drastically, and it is something that bothers me [immensely]." Others explained that their spouse's health was a source of concern, e.g., "My wife has serious health issues and I am her caregiver. Most of our conversation is centered around her care and needs." Some participants reported mutual health issues: "Neither of us sleep enough";

Me and my partner are suffering from severe health problems, though we both are highly qualified, I being a doctor and she is phd [sic] in philology, but we are not able to fulfill our duties fully and are worried about our future; and

Bad effects of medication and decline in physical functioning, related to medical conditions we both have - diabetes and back problems for him, multiple sclerosis for me. We need to talk about these things often as they effect daily life and need to be worked around.

Several participants indicated that they had sex-related concerns: "If we love each other and are in good health, why is sex so scarce?"; "Sexual problems other than physical - my husband has a problem with porn and that causes him to be intimate with me less"; and "My wife thinks she is unattractive [therefore] she doesn't want to have sex, I am constantly being rejected." Others expressed age-related concerns: "At the age of 66 (me) and 68 (him) we often need to plan and

get around limitations. I am somewhat philosophical about it, my husband is very vocal and surprised each time he comes up against it.” Finally, several participants alluded to caregiver burden, e.g., “My parents in law doesn't [sic] have anything, so we [have] to help them not only financially but take care [of] everything.”

Problems with children. Several participants also indicated that problems with children were a major topic of discussion with one's spouse. Participants had children at varying developmental stages, so concerns ranged from parenting young children, to saving for a child's college education, to taking care of an adult child's health needs. Some participants said that parenting, and specifically “discipline problems,” were an issue. Examples include: “We will talk about how we disagree about certain aspects of parenting, especially in regards to punishment” and

‘Problems with children’ is really more the regular practical issues which arise from a toddler's growing and learning while we learn to be parents, for example: state of health, accidents, choices which have to be made with activities, discipline and relationships. Some participants identified that caring for children was frequently discussed: “We talk quite a bit about how I have trouble relaxing because I am always working and taking care of kids. Our obligations and responsibilities (especially with 5 kids at home) make relaxing difficult if not impossible.” Others said that their children's education was of concern: “[We have] problems in engaging and helping my child's school activity to be done efficiently” and “Our big concern is about our kid's education. We love to talk about it over and over. Education is a very tricky and hard work at home.” For young adult children, college funding was of primary concern for several participants, e.g., “We have put 3 of our 4 kids through college in 6 years. College financing is daunting.” Parents with adult children expressed various concerns such as,

“Problems with children include an adult daughter who may be an alcoholic and another died who died [because] she drank and drove.”

Other problems. Some participants expressed problems that did not fit into these categories. One example was work-related issues (other than financial) such as “general job dissatisfaction”; “difficulties with co-workers”; “difficult customers/clients”; and “discrimination at work.” Other problems included household chores: “My husband does a vast majority of the housework, and it is usually the number 1 problem we talk about on a regular basis.” Some spouses reported that the emotional issues were a regular topic of discussion, e.g., “The issue of loneliness, as my husband feels lonely [since] he feels like the kids rake me away from him so much” and

My wife is very jealous and tends to make big deals out of nothing due to her insecurities so that is number 1. She sometimes does not feel like going places I go to on a regular basis and does not want me to go either such as for dinner at my parents or to soccer games with my friends.

Finally, several people said that politics were an issue discussed with their spouse, e.g., “My husband and I also don't really agree on a lot of things as far as [politics] and current events, and his opinions drive me nuts.”

Discussion

Marriage is one of the primary sources of support for adults, and the quality of this support can have a significant impact on an individual's health outcomes (Reis et al., 2000). When married partners experience distress, they can be at risk for depression and anxiety. Attachment and communication are critical factors involved in the healthy relationship and psychological functioning in adulthood. A large body of literature has investigated the role of

attachment styles, demonstrating that insecure attachment has a clear negative impact on social and emotional functioning (Mikulincer & Shaver, 2012). Communication styles have also been widely investigated (e.g., Gottman & Silver, 1999), but the impact of co-rumination on these outcomes is not as well-understood. Co-rumination has been posited as a risk factor for emotional distress as well as, somewhat paradoxically, a facilitator of close friendships (Rose, 2002). The majority of this research has focused on child or adolescent same-sex, close friendships.

The overarching goal of the present study was to investigate the role that both attachment and co-rumination had in predicting emotional and relationship distress in married partners. Namely, the study tested for associations as well as directional pathways between attachment styles, co-rumination, relationship, and emotional distress. Other goals were to assess for gender differences in these associations and to clarify the content of the co-rumination dialogue between married partners. Overall, the hypothesized associations between attachment, marital and emotional distress were supported, but those between co-rumination and these variables were not. Gender differences were not found for symptomatology and were found in the opposite direction for co-rumination. The hypothesized mediation model was not fully supported, but a simpler model was. The following discussion describes these findings in greater detail, provides explanations for the mixed empirical results, and provides suggestions for future research.

Associations between Attachment, Relationship and Emotional Distress

As hypothesized, both avoidant and anxious attachment were positively related to each other in addition to anxiety, depression, and relationship distress. While anxious and avoidant attachment are conceptualized as orthogonal constructs (Fraley & Shaver, 2000; Mikulincer & Shaver, 2007), they had a strong, positive correlation. The attachment measure used in the

current study, i.e., the Experiences in Close Relationships Scale-Revised (ECR-R; Fraley & Shaver, 2000), allowed for a dimensional approach to capturing an individual's attachment style. A recent meta-analysis supports the lack of orthogonality in attachment dimensions, particularly with the ECR-R (Cameron et al., 2012). As for distress, a large body of literature supports insecure attachment as being a significant predictor of psychological distress, especially depression and anxiety (Cassidy & Shaver, 2006; Cooper et al., 1998), as well as relationship adjustment (Cozzarelli et al., 2000; Mikulincer & Shaver, 2007).

In terms of the outcome variables, relationship distress was related to poorer psychological outcomes, i.e., depression and anxiety symptoms, in the hypothesized direction. This is unsurprising, as distress within a relationship has been established as a strong predictor of psychological well-being and emotional disorders (Diener & Seligman, 2002). This finding supports the relevance of interpersonal stress in the risk and maintenance of depressive and anxiety disorders. Next, depression and anxiety were related in the expected direction. The comorbidity between anxiety and depression is widely recognized within the mood disorder literature (e.g., Kessler et al., 2005). Taken together, both the current and past empirical findings demonstrate the important interrelationships between attachment, emotional and relational distress.

Co-rumination's Associations with Attachment and Distress

Regarding the second hypothesis, co-rumination was associated with relationship adjustment, in that individuals who reported higher levels of co-rumination with their spouse also reported higher levels of satisfaction with their partner. This is consistent with previous findings, as co-rumination has been positively associated with friendship adjustment in children, adolescents (Rose, 2002; Starr & Davila, 2009) and adults (Calmes & Roberts, 2008). This is the

first study to demonstrate this association with marital relationships. Romantic relationships pose challenges that are different from those of close friendships, which has been the primary focus of the co-rumination literature (Rose, 2002). Knowing that co-rumination contributes to relationship satisfaction in spouses is important because this communication style may impact couples' perceptions of partner support. This bivariate correlation should be interpreted with caution, however, because when controlling for attachment in a later analysis, the relation between co-rumination and adjustment was no longer significant.

Co-rumination was negatively associated with insecure attachment, which is contrary to this study's hypothesis. Nevertheless, it appears to fit with the finding from the studies that have explored the relationship between these variables: Co-rumination has been found to be positively associated with secure attachment, including communication and trust (Dam et al., 2014), and negatively associated with insecure attachment (i.e., with both avoidant and anxious attachment, although this relation was only significant for avoidant attachment; Shapero et al., 2013). Given co-rumination's consistent, positive association with relationship satisfaction, it makes sense that individuals who co-ruminate at higher rates are also likely to report being securely attached. By definition, individuals who co-ruminate are comfortable openly discussing problems with and expressing feelings to their partner. Individuals who are insecurely attached are less comfortable communicating openly with their partners because they fear abandonment or rejection (Mikulincer & Shaver, 2007). The inclination to communicate with others when faced with problems appears to be accounting for this negative association.

Findings from the present study indicated that co-rumination was unrelated to both depression and anxiety. Despite Rose's (2002) conceptualization of co-rumination as having an important relationship with internalizing symptoms, i.e., depression and anxiety, there have been

mixed findings across the literature. Several studies have demonstrated that co-rumination and depression are unrelated concurrently (Bastin, Mezulis, Ahles, Raes, & Bijttebier, 2015; Dam et al., 2014; Haggard, Robert, & Rose, 2010; Shapero et al., 2013; Starr, 2015). The relation between co-rumination and anxiety is less well-known, but some studies have also found that co-rumination and anxiety are unrelated (Starr, 2015; Starr & Davila, 2009). One explanation for these findings may be that there are other mediating or moderating factors impacting this relationship. For example, other studies have found that co-rumination is directly related to stress, and indirectly related to symptomatology (Bastin et al., 2015; Hankin et al., 2010). Overall, the present findings fit with current empirical findings, despite not being theoretically supported, in the co-rumination literature.

Gender Differences

Third, the findings on gender in communication and psychopathology in this study were in opposition with previous research. One important conceptualization of co-rumination implicates this risk factor as a potential explanation for gender differences in depression rates, i.e., that females tend to have higher rates than men (Nolen-Hoeksema, 1991b). Across the literature, females report higher levels of co-rumination than males (Balsamo et al., 2015; Bastin et al., 2015; Guassi Moreira et al., 2016; Haggard et al., 2010; Hankin et al., 2010; Rose, 2002). However, the current study found gender differences in married adults with men reporting higher levels of co-rumination than women. In particular, the men in this sample reported significantly higher levels of mulling, or the desire to repeatedly discuss problems, than women. Some evidence suggests that marriage facilitates open communication to a greater degree than same-sex, close friendships (Tschann, 1988), which the predominance of research on co-rumination has explored. Therefore the men in the current sample may feel comfortable openly discussing

problems with their spouse. Another possibility is that because the data collection method used in this study allowed for anonymity, the participants in this study felt comfortable responding honestly about their behavior. Yet still, the individuals in this sample may have responded idiosyncratically. This finding highlights the need for further elucidation of the concept of co-rumination as well as more research in this area.

Further, the women and men in this study reported similar levels of symptomatology, which runs contrary to the preponderance of evidence finding gender differences in depression and anxiety (Hankin & Abramson, 2001; McLean et al., 2011; Nolen-Hoeksema, 1991b). Research has begun to document that the MTurk population has higher levels of clinical phenomena, including depression and anxiety, than the traditional nonclinical samples (Arditte, Cek, Shaw, & Timpano, 2016). In fact, when a large sample of MTurk workers were assessed, no differences were found on depression and anxiety between men and women (Arditte et al., 2016). Characteristics unique to the MTurk population, and this sample in particular, may be driving the similarities in psychopathology. Over half of the current sample reported that their annual income was \$50,000 or less and had at least one child, and at least a quarter of individuals in this study likely meet criteria for poverty level according to federal guidelines (which is \$20,420 based on a 3 person household; Cochran, 2017). Low socioeconomic status (SES) is a significant risk factor for mental illness (e.g. Hudson, 2005) and thus may be one explanation for similar rates of psychopathology in the current sample. Future research should continue to evaluate how the MTurk population may differ from a traditional nonclinical sample to assess its impact on studies conducted in social sciences. It should also be acknowledged that the current sample shares another characteristic—i.e., all the individuals are all married. While the majority of the sample endorsed having nondistressing marriages, there may be characteristics about

marriage that puts individuals at risk for symptomatology. Therefore, researchers should also continue to understand the role that marital stressors or other relevant phenomena play in fostering this risk.

Pathways between Attachment, Co-rumination, and Distress

The primary goal of the current study was to test the directional associations between attachment styles, co-rumination, and relationship and emotional distress. The hypothesized associations between these variables were not supported. That model that included both co-rumination as a mediator and gender as a moderator was a poor fit to the data. The mediation model that did not account for gender moderation demonstrated acceptable fit, but the paths emanating from co-rumination to distress were not significant. Thus, a subsequent model that eliminated co-rumination as a mediator and tested its utility as an independent variable was then run. This model demonstrated an acceptable fit to the data, and there was no evidence of discriminant validity between this model and the one with co-rumination as a mediator. Hence, this model demonstrated the best fit for the data. Overall, these results indicate that when controlling for co-rumination and avoidant attachment, only anxious attachment significantly predicted emotional and relationship distress. Anxious attachment also significantly moderated the association between avoidant attachment and distress, controlling for co-rumination. Co-rumination did not significantly predict any of the outcome variables after accounting for attachment.

The current findings demonstrate the important predictive power of attachment styles on both emotional and relationship distress. Both anxious attachment and the interaction of anxious and avoidant attachment, i.e., fearful avoidance, were the only predictors that potentiated these outcomes. These findings are consistent with the extensive attachment literature. Overall,

individuals who are insecurely attached are more likely to report general distress than those who are securely attached. In terms of emotional distress, a specific pattern emerged in that only anxious and fearful-avoidant individuals were at greater risk for psychopathology. Anxious attachment has been consistently predictive of depression and anxiety (Mikulincer & Shaver, 2007). Avoidant attachment has been less consistently linked to symptomatology, with only about half of studies finding that avoidant individuals are at greater risk for depression and anxiety than those who are securely attached (Mikulincer & Shaver, 2007, p. 379). These studies have demonstrated that fearful avoidance, but not dismissing avoidance, is more likely to be associated with emotional distress. The current results fit with this pattern of specificity found in previous studies. In terms of relationship adjustment, researchers find overwhelmingly that overall attachment insecurity—i.e., both anxious and avoidant attachment—is positively related to relationship distress. Interestingly though, when looking at marital relationships, avoidant attachment is related to relationship satisfaction less consistently (Birnbaum, 2007; Gallo & Smith, 2001). Of note, most of these studies relied purely on correlational data and did not control for the effects of other levels of attachment (e.g., N. L. Williams & Riskind, 2004). Theorists emphasize the importance of measuring attachment using a dimensional approach, but research typically only measures two attachment orientations, i.e., avoidant and anxious. Future studies should use the dimensional approach to prevent spurious findings from possible effects of conflation. These findings highlight the utility of attachment theory in understanding risk for depression, anxiety, and marital distress.

The pathways between co-rumination and distress were not significant after controlling for attachment. Prior to accounting for attachment styles, co-rumination was positively related to relationship adjustment. This confounding effect indicates that changes in distress were better

explained by attachment. One reason for this finding may be that attachment represents a larger network of mental representations and behavioral responses, and co-rumination is limited in explaining this connection because it is only one possible behavioral response. Co-rumination was also did not predict emotional distress. Again, the link between co-rumination and both depression and anxiety has been mixed, with much evidence suggesting that there is not a direct association between these variables (Bastin et al., 2015; Dam et al., 2014; Haggard et al., 2010; Spendelow, Simonds, & Avery, 2017; Starr, 2015; Stone & Gibb, 2015). Future research should discern whether co-rumination predicts relationship adjustment and symptomatology after controlling for other interpersonal and cognitive styles. There are many risk factors for marital and emotional distress, and thus more work needs to be done to deduce how they fit into a larger theoretical framework in the understanding how an individual develops depression and anxiety (e.g., the cognitive vulnerability-transactional stress theory; Hankin & Abramson, 2001).

Previous evidence has suggested that both attachment and co-rumination are more proximally associated with stress generation than symptomatology (e.g., Shapero et al., 2013). The most consistent findings in the co-rumination literature is its contribution to stress generation (Byrd-Craven et al., 2008; Byrd-Craven et al., 2010), particularly interpersonal stress (Bouchard & Shih, 2013; Hankin et al., 2010; Shapero et al., 2013). Because of this, an exploratory analysis was conducted to determine whether relationship distress functioned as a mediator between attachment and co-rumination as independent variables and emotional distress as a dependent variable. It is noteworthy that some paths in this model reached significance, i.e., anxious and anxious by avoidant attachment predicting relationship distress, respectively, and some approached significance, i.e., co-rumination predicting relationship adjustment and

relationship distress predicting emotional. Thus, this model warrants further investigation, possibly with a larger sample size and a more extensive measure of relationship stressors.

Finally, having gender in the model as a moderator was a poor fit to the data, meaning that the association between co-rumination and distress appeared to be similar for both men and women. This is likely because there were no gender differences in depression and anxiety in the current sample. Findings about gender differences in co-rumination have been mixed. Many other studies did not find evidence of gender moderation in the relationship between co-rumination and symptomatology (Guarneri-White, Jensen-Campbell, & Knack, 2015; Hruska, Zelic, Dickson, & Ciesla, 2015; Nicolai et al., 2013; Stone & Gibb, 2015), including the single study that investigated attachment (Dam et al., 2014). Therefore, future research needs to examine whether gender differences are an integral part of co-rumination's contribution to risk for distress. Future investigators could determine whether certain population characteristics (e.g., age) or risk factors (e.g., rumination) preclude or promote gender differences.

In sum, the present findings help to elucidate the specific pathways of interpersonal styles that lead to emotional and marital distress. Namely, the attachment anxiety and fearful – avoidance may be relatively more specific for explaining these types of distress than co-rumination. The results did not differ between men and women. Understanding these risk factors may help account for the co-occurrence between anxiety and depression as well as marital distress. Future research may benefit from examining whether other interpersonal processes mediate the relationship between attachment dimensions and distress. It is possible that attachment style is manifested in different communication patterns, such as excessive reassurance seeking (Abela et al., 2005; Mikulincer & Shaver, 2007), that contribute to vulnerability for emotional and relationship distress. Overall, these findings fit within the broader

context of interpersonal theories of depression (Coyne, 1976; Joiner & Coyne, 1999) and attachment theory (Bowlby, 1969/1982).

Content of Co-rumination

To this author's knowledge, this is the first study to document the content of co-rumination in general, and in adults in particular. Participants reported that the problems they most frequently discussed with their spouse were financial issues, health issues, and issues with children. Some specific financial issues that participants reported were concerns about financial and job security, having enough money to pay bills, and saving and managing money. Given that the current sample was comprised of many individuals of lower SES, the primary concern being financial was understandable. However, finances and financial problems are commonly reported as frequent topics of discussion in marital relationships (Noller & Feeney, 1998). Financial strain has been demonstrated to be a strong predictor of negative communication patterns, such as coercion, contempt, denial, dominance, and hostility, even when accounting for relationship satisfaction (Williamson, Karney, & Bradbury, 2013). Co-rumination seems to fit within this context, and more research needs to be done to deduce how co-rumination about financial issues impacts relationship outcomes and psychopathology.

Participants also reported that their own health issues or those of a close family member, e.g., spouse, child, or parent, were often the subject of co-rumination with their spouse. This category spanned mental and physical health issues, e.g., concerns about sexual intimacy and aging. Health issues are also reported as some of the most frequent topics of conversation among spouses (Noller & Feeney, 1998). This finding is important because dwelling on one's own health issues can subsequently lead to further mental or physical health problems (e.g., McLaughlin & Nolen-Hoeksema, 2011). Further, health psychologists have identified that

communication and support within a close relationship may influence how individuals takes care of their own health (Reis et al., 2000). While co-rumination did not predict symptomatology in the present study, several other studies have found that co-rumination is linked to both mental and physical outcomes. For example, co-rumination with friends has been found to predict depression and physical pain in pregnant women (Byrd-Craven & Massey, 2013). Therefore, co-rumination surrounding health issues may be a fruitful area of further exploration.

Major topics of discussion between spouses also centered on their children, parenting practices with young children; education and paying for college tuition; and caregiving for both younger and adult children. One concern about these reports is that parents who use this type of coping may be modeling this maladaptive form of coping to their children as an appropriate response to stress. There is evidence to suggest that maternal symptomatology influences parent-child co-rumination (Grimbos, Granic, & Pepler, 2013), and that maternal co-rumination predicts a child's depressive symptoms (Waller & Rose, 2010, 2013). It is well-known that mothers' behavior can influence their children's psychological outcomes, e.g., depressive and anxiety symptoms (C. L. Williams, Harfmann, Ingram, Hagan, & Kramer, 2015). Thus, the way that spouses cope with child rearing may be detrimental not only to one another, but also to their children. More work needs to be done to investigate the impact of spousal co-rumination, particularly on children, and determine how it differentially impacts parents as compared to other types of coping, such as problem-solving.

This study provides a new look at the content of adult co-rumination between married partners. Co-rumination is not a widely understood concept, and thus insight gained from the present study can help to inform future studies. Because this investigation was exploratory, specific types of problem discussions were not examined to determine their differential impact

on distress. Future studies could analyze whether specific types of problem discussions intervene in the relation between co-rumination and distress. There is one issue that future studies should seek to address: despite effort to clarify this phenomenon to participants through the instructions and administration of the Co-Rumination Questionnaire (CRQ; Rose, 2002), it is still clear from the qualitative data that participants were idiosyncratically interpreting the types of problem discussions they have with their spouses. For example, some participants interpreted this question as the “disagreements” they have with their spouses, which is not a behavior congruent with co-rumination. One way to address this issue could be to use in-person interviews or focus groups in which the researchers thoroughly explain this phenomenon to participants and then subsequently solicit examples.

Strengths and Limitations

This present study had several notable strengths. One of its major strengths is that it extends theory and empirical research on interpersonal risk factors of distress through its novel exploration of these concepts: First, the current study assessed the role of attachment and co-rumination in predicting distress. Only two other studies (i.e., Dam et al., 2014; Shapero et al., 2013) have explored the relation between attachment and co-rumination, only one of which investigated their role in distress. Structural equation modeling allowed for the identification of directional paths driving the association between interpersonal styles and distress. Second, no other study to date has explored the role of co-rumination in married partners. Due to its theoretical connection to same-sex, close friendships (Rose, 2002), co-rumination has been very rarely investigated in other relationships, especially in romantic ones (Calmes & Roberts, 2008). The present results suggest that co-rumination between spouses is a fruitful area of exploration.

Third, this is the first study to explore the content of co-rumination. The findings provide insight into what participants are thinking about when responding to the CRQ.

Another major strength of this study is that it used a large sample with a wide age range and equal gender representation. Research on co-rumination has been largely conducted with women. While thought of as predominantly a female characteristic, the current study suggests that males should not be excluded from future studies, as the effects of co-rumination may be the same. Much research has been done to explore gender differences in depression, which has resulted in a preponderance of research on risk factors specific to females. Nevertheless, men also have high rates of depression (Pratt & Brody, 2014) and suicide (Curtin, Warner, & Hedegaard, 2016), so it is crucial that we explore risk factors for this population as well. For these reasons, the current study advances theory and research on the development of emotional and marital distress, namely in the areas of co-rumination and attachment style.

At the same time, the wide age range of the sample may have limited the conclusions that can be made from the present results. There may be cohort differences in the way that couples communicate. The content of co-rumination varied widely and appeared to reflect issues present at different points in the lifespan (e.g. child rearing, age-related health concerns). Focusing on a more limited age range may provide a better understanding about how co-rumination influences spouses' mental health at specific points in the life span. Similarly, marital length also ranged widely. The way that couples discuss issues during the first year of marriage will likely be different from the way that they discuss issues during the 40th. Future research should determine whether marriage length has any impact on the relation between co-rumination and symptomatology.

The data collection method used in this study may have posed some limitations. Amazon's MTurk allows for responses to be collected quickly and anonymously. Although several precautions were taken to ensure that participants met the study criteria, it is possible that participants feigned their demographic information. Further, participants may have responded randomly—while there was a check implemented into the data set to minimize this, several individuals were excluded because they did not thoroughly read through every question. Also, evidence suggests that MTurk workers might differ from community-based samples in meaningful ways. For example, despite being more representative of the population than convenience samples like undergraduates, they also generally report lower income than the general U.S. population (Arditte et al., 2016). Therefore, the current study must acknowledge possible limits to generalizability.

Self-report measures were convenient to assess the current hypotheses, but the use of such measures may also be a potential limitation. All of the current tests were face valid and as such, individuals may have answered dishonestly such as presenting themselves positive or negative light. Nevertheless, the concern is minimal given the anonymity of responses. Further, while I attempted to assess dispositional traits, there is always the potential that mood-dependent responding interfered with accurate measurement. Attempts to minimize this possibility were made by having participants respond to the depression and anxiety questionnaires as their final task. Finally, while the measures demonstrated good psychometric properties, use of self-report measures may pose risk for the mono-method bias. Future studies may reduce the risk of these concerns by using different assessment methods such as in-person interviews with one or both partners to more accurately evaluate individuals' behavior and personality characteristics.

There may have also been other measurement issues. As was previously mentioned, the measurement of co-rumination may have posed a threat to construct validity. Studies of co-rumination have largely relied on the CRQ (Rose, 2002) to measure this construct (with few exceptions, e.g., Zelic, Ciesla, Dickson, Hruska, & Ciesla, 2017). Given participants' qualitative responses, it was unclear whether participants understood what co-rumination entails. While attempted in the current study, ensuring that participants understand the behaviors that constitute co-rumination prior to soliciting examples may enhance measurement of this construct. Also, I inadvertently omitted the question about racial identity from the demographics questionnaire. The racial composition of the sample may have had important implications for relationship communication as well as symptomatology in the current sample. Therefore, future studies should examine the impact of race on the understanding of these constructs.

Finally, the cross-sectional nature of the current study was useful as a tool for preliminary and exploratory analyses to guide future investigations and address measurement issues. Nevertheless, causal inferences cannot be made from these data with any certainty. Using longitudinal data would allow for clarification of any temporal relationships between interpersonal styles and types of distress. For example, longitudinal data could more accurately assess the role of attachment style as a distal predictor and co-rumination as a proximal predictor of relationship distress, depression, and anxiety. Different researchers have explored co-rumination as both a trait and state-level characteristic (e.g. Starr, 2015) so understanding fluctuations over time may help to more precisely capture these associations.

Conclusion

Marriage poses its own set of unique challenges, and spouses who use ineffective methods to cope with these challenges are at increased risk for depression and relationship

distress. Interpersonal processes are especially relevant coping mechanisms for understanding how these challenges are translated into negative outcomes. The current study helped to illuminate specific interpersonal styles that are most influential in marital and emotional distress. Findings demonstrated that spouses with anxious and fearful-avoidant attachment styles are at an increased risk of developing distress within their relationship as well as depressive and anxious symptomatology. Relative to attachment, co-rumination did not predict distress. The way that an individual attaches to their partner clearly has a profound impact on their well-being. Thus, therapists need to be aware of the cognitive and interpersonal expressions of attachment as targets of treatment. While insecure attachment has been found to manifest in specific communication behaviors, co-rumination does not appear to be one of them. Rather, co-rumination seems to be a product of secure attachment. Secure attachment has been associated with numerous benefits, including a decreased risk of developing depression, so one would suspect that co-rumination may be associated with those same benefits. Yet, current results did not provide evidence that co-rumination influenced distress in any direction. Co-rumination may be more distally related to distress by interacting with other risk processes to predict distress. More work needs to be done to determine under what conditions co-rumination may impact psychosocial functioning, either positively or negatively. For example, it may be worthwhile to more carefully examine the diathesis-stress or stress generation hypotheses. It is noteworthy though that spouses endorsed co-ruminating with their partners. No prior study has gathered qualitative descriptions of the content of co-rumination and thus this was one of the strengths of the current study. These descriptions demonstrated the critical need for this process to be further elucidated. These findings fit into the broader literature on interpersonal theories of depression

and attachment theory, signifying that interpersonal processes should continue to be researched to better understand risk and maintenance of psychopathology.

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Table 1

Demographic Characteristics

| | <i>M (SD)</i> | Range |
|---|---------------|---------|
| Age | 39.61 (10.67) | 22 - 70 |
| Length of current marriage (years) | 11.08 (9.43) | 1 - 43 |
| # of times married | 1.21 (.62) | 1 - 7 |
| # of children | 1.53 (1.04) | 0 - 5 |
| # of children living with | 1.44 (.90) | 0 - 5 |
| | <i>N</i> | % |
| Gender | | |
| Men | 88 | 44.4% |
| Women | 109 | 55.1% |
| Transgender | 1 | .5% |
| Partner living situation | | |
| Living together | 193 | 97.5% |
| Separately – practical reasons | 4 | 2.0% |
| Separately – relationship problems | 1 | .5% |
| Sexual orientation | | |
| Heterosexual | 186 | 93.9% |
| Gay | 2 | 1.0% |
| Lesbian | 3 | 1.5% |
| Bisexual | 6 | 3.0% |
| Asexual | 1 | .5% |

| | | |
|----------------------------------|-----|-------|
| Education | | |
| Did not complete high school | 1 | .5% |
| High school/GED | 9 | 4.5% |
| Vocational/technical | 9 | 4.5% |
| Some college | 33 | 16.7% |
| Bachelor's | 90 | 45.5% |
| Master's | 55 | 27.8% |
| Doctoral | 1 | .5% |
| Employment status | | |
| Part-time | 38 | 19.2% |
| Full-time | 126 | 63.6% |
| Unemployed, looking for work | 7 | 3.5% |
| Unemployed, not looking for work | 15 | 7.6% |
| Student | 3 | 1.5% |
| Military | 1 | .5% |
| Retired | 7 | 3.5% |
| Unable to work | 1 | .5% |
| Income | | |
| Under \$10,000 | 32 | 16.2% |
| \$10,000 - 25,000 | 23 | 11.6% |
| \$25,000 – 50,000 | 51 | 25.8% |
| \$50,000 – 100,000 | 67 | 33.8% |
| Over \$100,000 | 25 | 12.6% |
| Religion | | |
| Christian | 90 | 45.5% |
| Jewish | 3 | 1.5% |
| Muslim | 5 | 2.5% |
| Buddhist | 3 | 1.5% |
| Hindu | 55 | 27.8% |
| Atheist | 12 | 6.1% |
| Agnostic | 14 | 7.1% |
| None of the above | 15 | 7.6% |
| Prefer not to answer | 1 | .5% |

Table 2

Descriptive Statistics of Study Variables

| | <i>M</i> | <i>SD</i> | Minimum | Maximum |
|--------------------------------|----------|-----------|---------|---------|
| Co-rumination (CRQ) | 81.13 | 21.79 | 31 | 128 |
| Attachment Style (ECR-R) | | | | |
| Avoidant | 3.28 | 1.04 | 1 | 6.50 |
| Anxious | 3.23 | 1.25 | 1 | 5.89 |
| Relationship Adjustment (RDAS) | 50.45 | 9.92 | 24 | 67 |
| Consensus | 22.71 | 5.26 | 0 | 30 |
| Satisfaction | 14.92 | 4.06 | 0 | 20 |
| Cohesion | 12.83 | 3.80 | 0 | 19 |
| Emotional Distress | | | | |
| Depression (BDI) | 8.90 | 9.79 | 0 | 38 |
| Anxiety (BAI) | 11.21 | 13.24 | 0 | 56 |

Note. The Co-rumination Questionnaire (CRQ) is from Rose (2002); the Experiences in Close Relationships Scale-Revised (ECR-R) is from Fraley et al. (2000); the Revised Dyadic Adjustment Scale (RDAS) is from Busby et al. (1995); the Beck Depression Inventory-I (BDI) is from Beck et al. (1961); and the Beck Anxiety Inventory (BAI) is from Beck et al. (1988).

Table 3

Correlations between Study Variables

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1. CRQ – Co-rumination | 1 | - | - | - | - | - | - | - | - |
| 2. ECR – Anxious Attachment | -.15* | 1 | - | - | - | - | - | - | - |
| 3. ECR – Avoidant Attachment | -.32** | .51** | 1 | - | - | - | - | - | - |
| 4. RDAS – Total Adjustment | .16* | -.49** | -.35** | 1 | - | - | - | - | - |
| 5. RDAS – Consensus | .10 | -.40** | -.24** | .80** | 1 | - | - | - | - |
| 6. RDAS – Satisfaction | .09 | -.44** | -.28** | .71** | .30** | 1 | - | - | - |
| 7. RDAS – Cohesion | .19** | -.24** | -.28** | .74** | .39** | .37** | 1 | - | - |
| 8. BAI – Anxiety | -.02 | .51** | .38** | -.45** | -.34** | -.39** | -.29** | 1 | - |
| 9. BDI – Depression | -.10 | .56** | .45** | -.50** | -.32** | -.50** | -.32** | .68** | 1 |

Note. * $p < .05$, ** $p < .01$. The Co-rumination Questionnaire (CRQ) is from Rose (2002); the Experiences in Close Relationships Scale-Revised (ECR-R) is from Fraley et al. (2000); the Revised Dyadic Adjustment Scale (RDAS) is from Busby et al. (1995); the Beck Depression Inventory-I (BDI) is from Beck et al. (1961); and the Beck Anxiety Inventory (BAI) is from Beck et al. (1988).

Table 4

Gender Differences in Study Variables

| Measure | Male | | Female | | <i>t</i> |
|-------------------|-------------|-----------|---------------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| CRQ | 84.72 | 19.85 | 78.58 | 22.76 | 2.00* |
| BAI | 10.09 | 13.57 | 12.20 | 12.97 | -1.11 |
| BDI | 8.94 | 10.52 | 8.95 | 9.22 | -.00 |
| ECR-R - Anxiety | 3.20 | 1.21 | 3.25 | 1.30 | -.28 |
| ECR-R - Avoidance | 3.21 | .96 | 3.34 | 1.11 | -.85 |
| RDAS | 51.07 | 10.40 | 50.01 | 9.58 | .74 |

Note. * $p < .05$. The Co-rumination Questionnaire (CRQ) is from Rose (2002); the Experiences in Close Relationships Scale-Revised (ECR-R) is from Fraley et al. (2000); the Revised Dyadic Adjustment Scale (RDAS) is from Busby et al. (1995); the Beck Depression Inventory-I (BDI) is from Beck et al. (1961); and the Beck Anxiety Inventory (BAI) is from Beck et al. (1988).

Table 5

Unstandardized and Standardized Parameter Estimates for the Hypothesized Structural Model with Effect Sizes of Latent Variables: Co-rumination as a Mediator of Attachment and Distress

| Variable | <i>Unstandardized (SE)</i> | <i>p</i> | <i>Standardized (SE)</i> | <i>p</i> | <i>R²</i> |
|----------------------------|--------------------------------|----------|------------------------------|----------|----------------------|
| Co-rumination ON | | | | | .15* |
| Anxious attachment | -.07 (.12) | .59 | -.06 (.12) | .59 | |
| Avoidant attachment | -.35 (.15)* | .02 | -.32 (.13)* | .02 | |
| Anxious X Avoidant | -.00 (.06) | .51 | -.00 (.01) | .55 | |
| Relationship adjustment ON | | | | | .59*** |
| Co-rumination | .20 (.12) | .11 | .14 (.08) | .09 | |
| Anxious attachment | -1.03 (.39)* | .01 | -.66 (.14)*** | .00 | |
| Avoidant attachment | .26 (.32) | .42 | .16 (.18) | .37 | |
| Anxious X Avoidant | -.04 (.02)* | .02 | -.03 (.01)** | .00 | |
| Emotional distress ON | | | | | .62*** |
| Co-rumination | .12 (.11) | .30 | .08 (.07) | .29 | |
| Anxious attachment | 1.07 (.33)** | .00 | .66 (.12)*** | .00 | |
| Avoidant attachment | -.04 (.28) | .89 | -.03 (.17) | .88 | |
| Anxious X Avoidant | .05 (.02)** | .01 | .03 (.01)*** | .00 | |

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

Table 6

Unstandardized and Standardized Parameter Estimates for the Hypothesized Structural Model with Effect Sizes of Latent Variables: Attachment and Co-rumination as Independent Variables Predicting Distress

| Variable | <i>Unstandardized (SE)</i> | <i>p</i> | <i>Standardized (SE)</i> | <i>p</i> | <i>R²</i> |
|----------------------------|--------------------------------|----------|------------------------------|----------|----------------------|
| Relationship adjustment ON | | | | | .59*** |
| Co-rumination | .21 (.13) | .11 | .14 (.08) | .09 | |
| Anxious attachment | -1.03 (.39)** | .01 | -.66 (.14)*** | .00 | |
| Avoidant attachment | .26 (.32) | .42 | .16 (.18) | .37 | |
| Anxious X Avoidant | -.04 (.02)* | .02 | -.03 (.01)** | .00 | |
| Emotional distress ON | | | | | .62*** |
| Co-rumination | .13 (.12) | .30 | .08 (.07) | .29 | |
| Anxious attachment | 1.07 (.33)** | .00 | .66 (.12)*** | .00 | |
| Avoidant attachment | -.04 (.28) | .89 | -.03 (.17) | .88 | |
| Anxious X Avoidant | .05 (.02)** | .01 | .03 (.01)*** | .00 | |

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

Table 7

Unstandardized and Standardized Parameter Estimates for the Hypothesized Structural Model with Effect Sizes of Latent Variables: Model with Relationship Adjustment as a Mediator of Attachment and Co-rumination and Distress

| Variable | Unstandardize d (SE) | p | Standardized (SE) | p | R ² |
|----------------------------|-------------------------|-----|----------------------|-----|----------------|
| Relationship adjustment ON | | | | | .59*** |
| Co-rumination | .21 (.13) | .11 | .14 (.08) | .09 | |
| Anxious attachment | -1.03 (.39)** | .01 | -.66 (.14)*** | .00 | |
| Avoidant attachment | .26 (.32) | .42 | .16 (.18) | .37 | |
| Anxious X Avoidant | -.04 (.02)* | .02 | -.03 (.01)** | .00 | |
| Emotional distress ON | | | | | .69*** |
| Relationship adjustment | -.48 (.26) | .06 | -.42 (.20) | .04 | |
| Co-rumination | .25 (.13) | .07 | .14 (.07) | .06 | |
| Anxious attachment | .69 (.38) | .07 | .38 (.20) | .05 | |
| Avoidant attachment | .08 (.26) | .77 | .04 (.15) | .77 | |
| Anxious X Avoidant | .03 (.02) | .10 | .03 (.01) | .08 | |

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

Table 8

Frequency of topics discussed with partner during co-rumination (starting with most frequent)

| Item #/Response | Number of respondents | Frequency |
|--|------------------------------|------------------|
| 52. Financial security | 38 | 19 |
| 10. Concerns about owing money | 35 | 17.5 |
| 7. Health of a family member | 33 | 16.5 |
| 37. Problems with your children | 31 | 15.5 |
| 9. Not enough money for housing | 25 | 12.5 |
| 5. Troubling thoughts about your future | 19 | 9.5 |
| 11. Concerns about money for emergencies | 18 | 9 |
| 2. Troublesome neighbors | 14 | 7 |
| 32. Financing children's education | 14 | 7 |
| 18. Too many responsibilities | 13 | 6.5 |

Note. Items are from the Hassles Scale (Kanner et al., 1981).

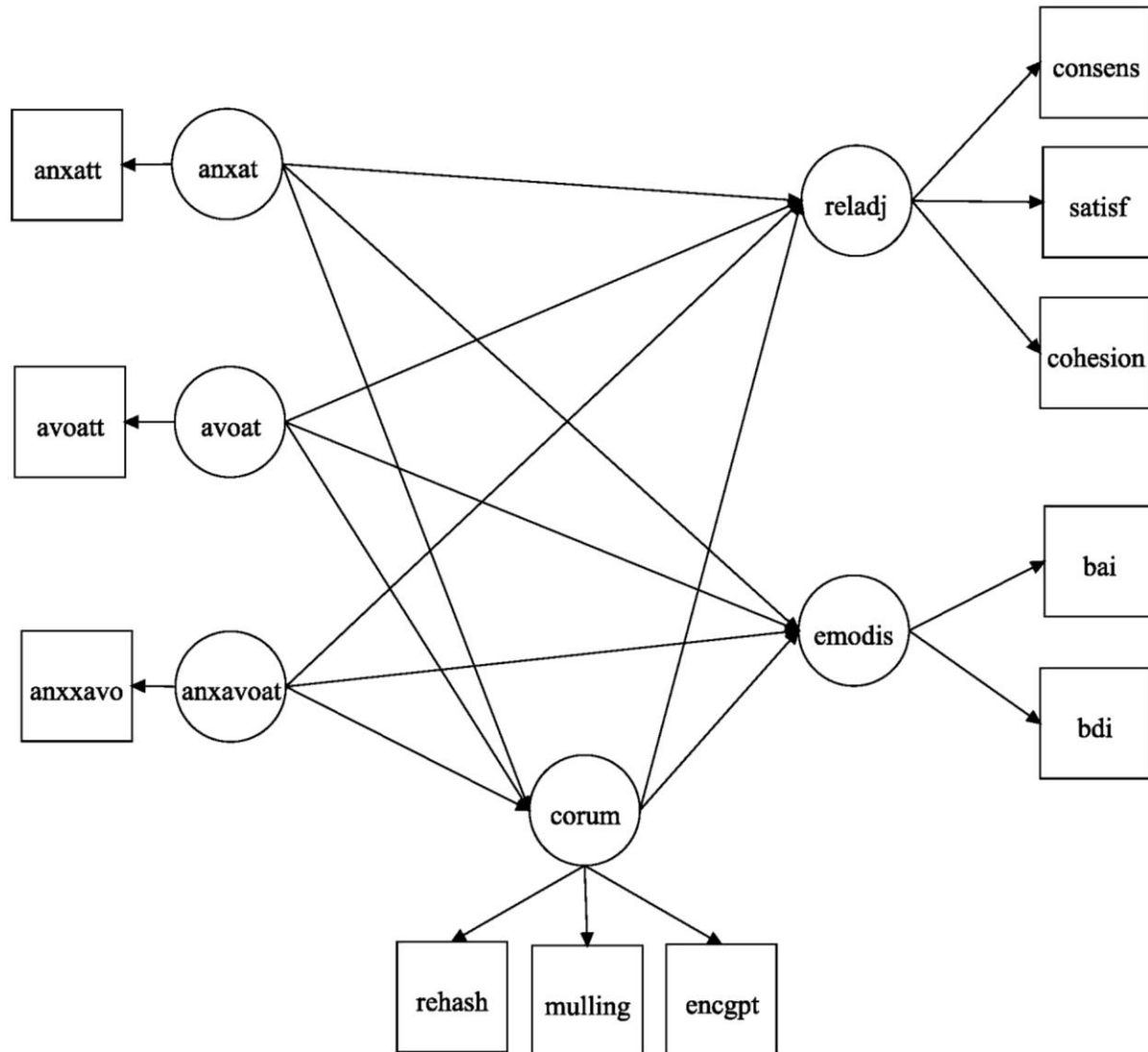


Figure 1. The path model of the hypothesized relations among attachment styles, co-rumination, relationship adjustment, and emotional distress. Circles represent latent variables and squares represent manifest variables. For organizational purposes, the residual variances and covariances were omitted from this model. Anxatt= anxious attachment; avoatt = avoidant attachment; anxxavo = anxious by avoidant attachment; corum = co-rumination; rehash = rehashing; mulling = mulling; encgpt = encouraging problem talk; emodis = emotional distress; reladj = relationship adjustment; consens = consensus; satisf = satisfaction; cohesion = cohesion; bai = anxiety; bdi = depression.

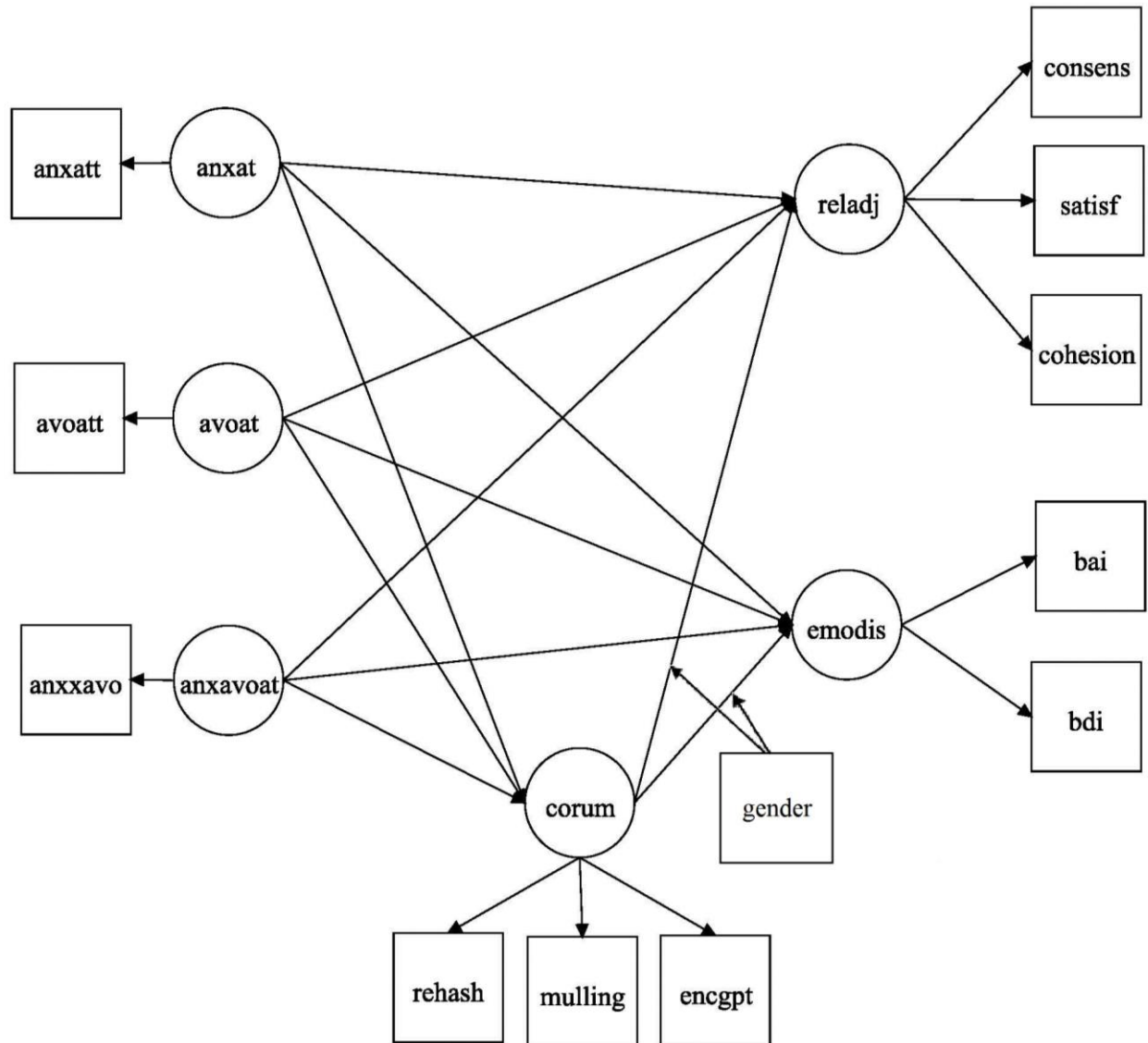


Figure 2. The path model of the hypothesized relations among attachment styles, co-rumination, gender, relationship adjustment, and emotional distress. Circles represent latent variables and squares represent manifest variables. Anxatt = anxious attachment; avoatt = avoidant attachment; anxxavoat = anxious by avoidant attachment; corum = co-rumination; rehash = rehashing; mulling = mulling; encgpt = encouraging problem talk; reladj = relationship adjustment; consens = consensus; satisfy = satisfaction; cohesion = cohesion; emodis = emotional distress; bai = anxiety; bdi = depression.

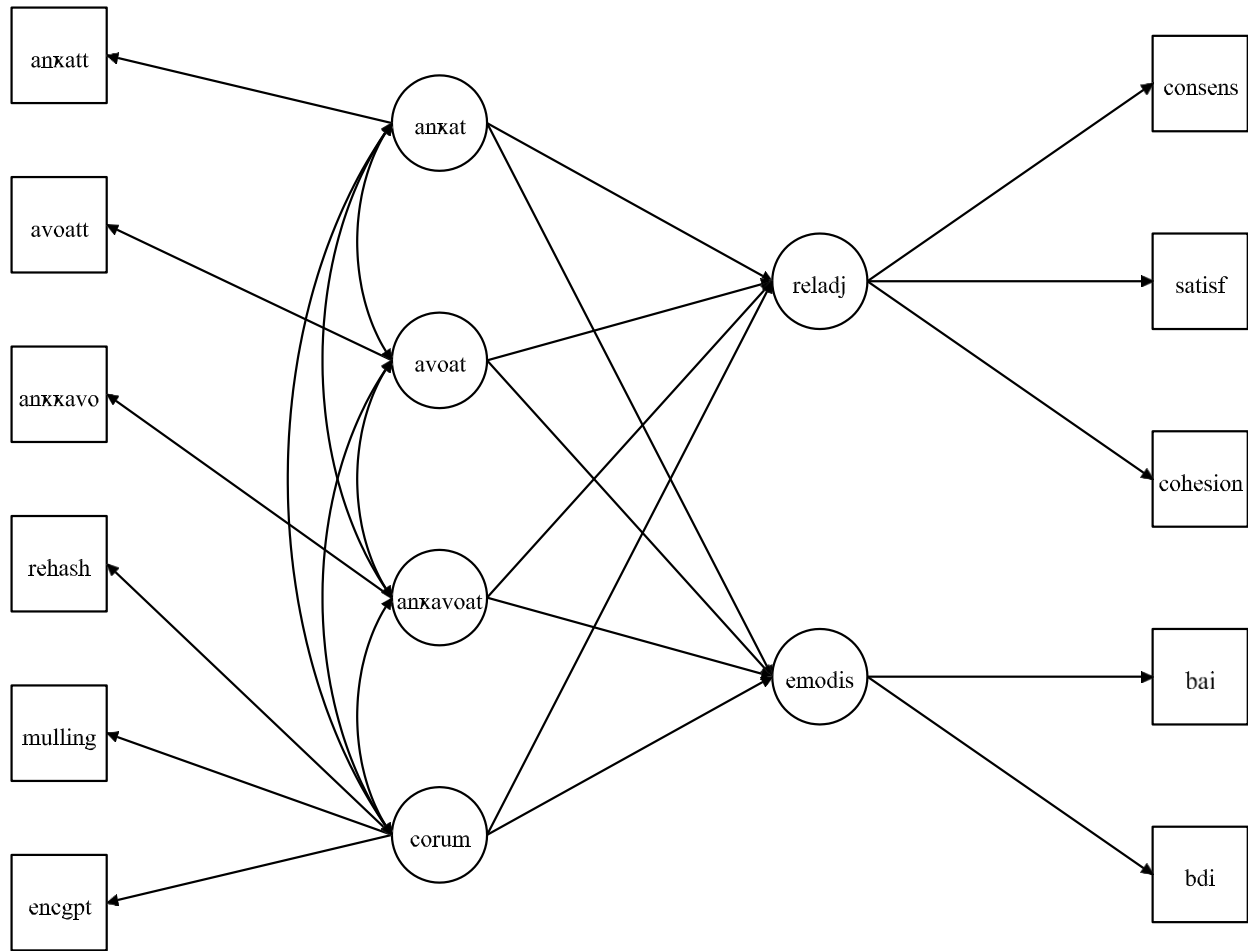


Figure 3. The path model of the modified relations among attachment styles, co-rumination, relationship adjustment, and emotional distress. Circles represent latent variables and squares represent manifest variables. For organizational purposes, the residual variances and covariances were omitted from this model. Anxat = anxious attachment; avoat = avoidant attachment; anxavo = anxious by avoidant attachment; corum = co-rumination; rehash = rehashing; mulling = mulling; encgpt = encouraging problem talk; reladj = relationship adjustment; consens = consensus; satisf = satisfaction; cohesion = cohesion; emodis = emotional distress; bai = anxiety; bdi = depression.

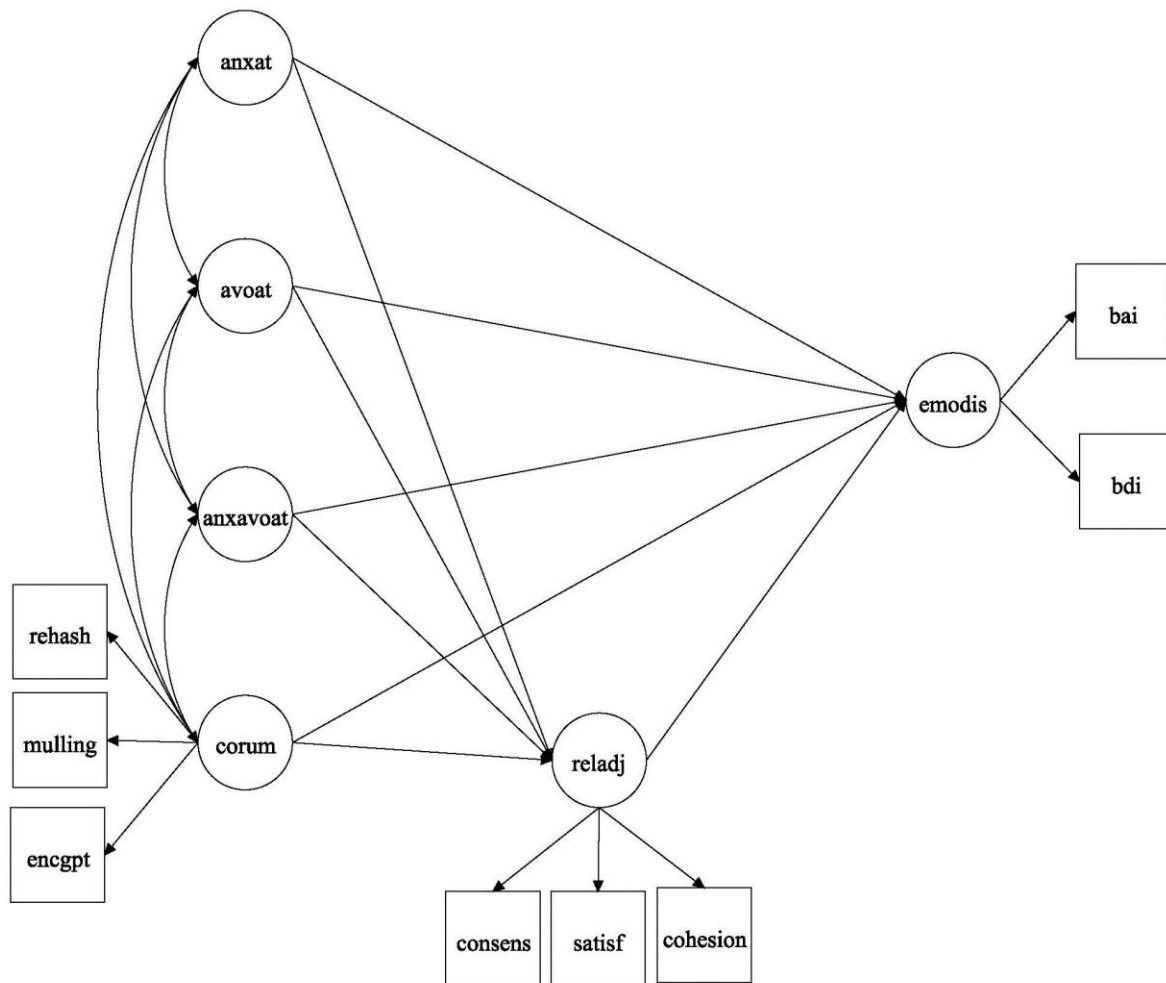


Figure 4. The path model of the exploratory relations among attachment styles, co-rumination, relationship adjustment, and emotional distress. Circles represent latent variables and squares represent manifest variables. For organizational purposes, the residual variances and some manifest variables were omitted from this model. Anxat = anxious attachment; avoat = avoidant attachment; anxavoat = anxious by avoidant attachment; corum = co-rumination; rehash = rehashing; mulling = mulling; encgpt = encouraging problem talk; reladj = relationship adjustment; consens = consensus; satisf = satisfaction; cohesion = cohesion; emodis = emotional distress; bai = anxiety; bdi = depression.

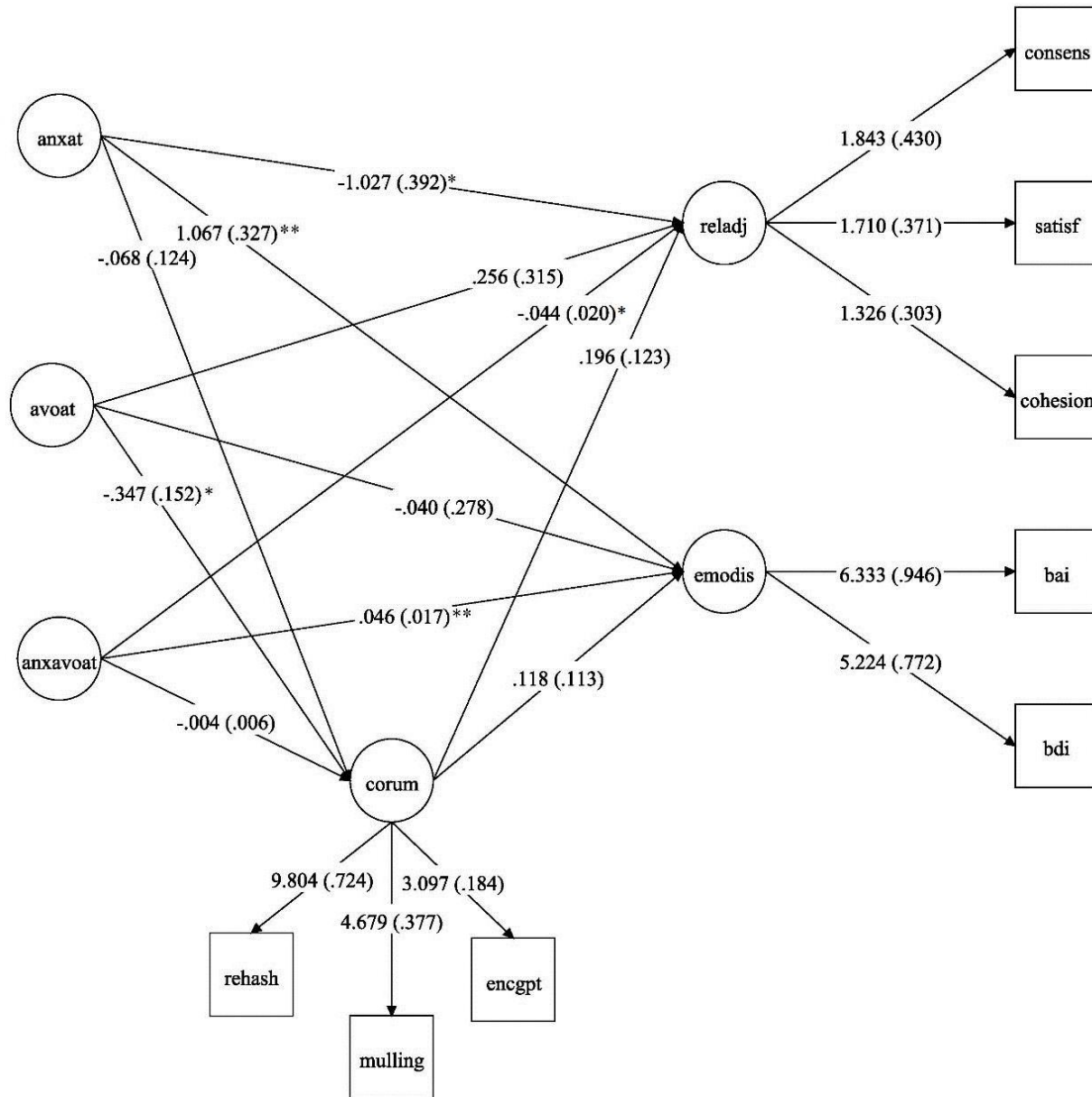


Figure 5. * $p < .05$, ** $p < .01$. The structural model of the hypothesized relations among attachment styles, co-rumination, relationship adjustment, and emotional distress. Directional paths show unstandardized estimates with standard errors in parentheses. Circles represent latent variables and squares represent manifest variables. For organizational purposes, the residual variances and covariances were omitted from this model. Anxat = anxious attachment; avoat = avoidant attachment; anxavo = anxious by avoidant attachment; corum = co-rumination; rehash = rehashing; mulling = mulling; encgpt = encouraging problem talk; reladj = relationship adjustment; consens = consensus; satisf = satisfaction; cohesion = cohesion; emodis = emotional distress; bai = anxiety; bdi = depression.

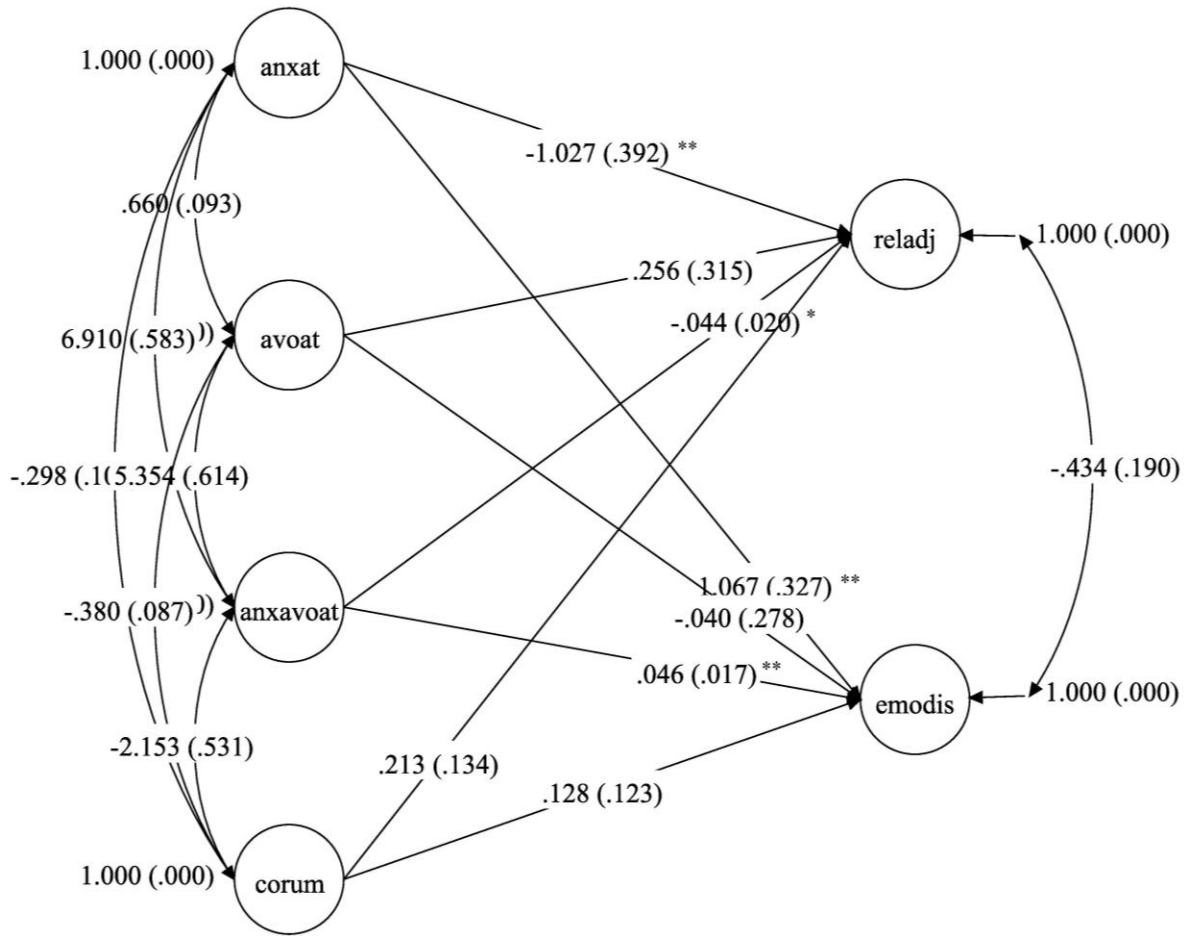


Figure 6. * $p < .05$, ** $p < .01$. The structural model of the modified relations among attachment styles, co-rumination, relationship adjustment, and emotional distress. Directional paths show unstandardized estimates with standard errors in parentheses. Circles represent latent variables. For organizational purposes, the residual variances and manifest variables were omitted from this model. Anxat = anxious attachment; avoat = avoidant attachment; anxxavo = anxious by avoidant attachment; corum = co-rumination; reladj = relationship adjustment; emodis = emotional distress.

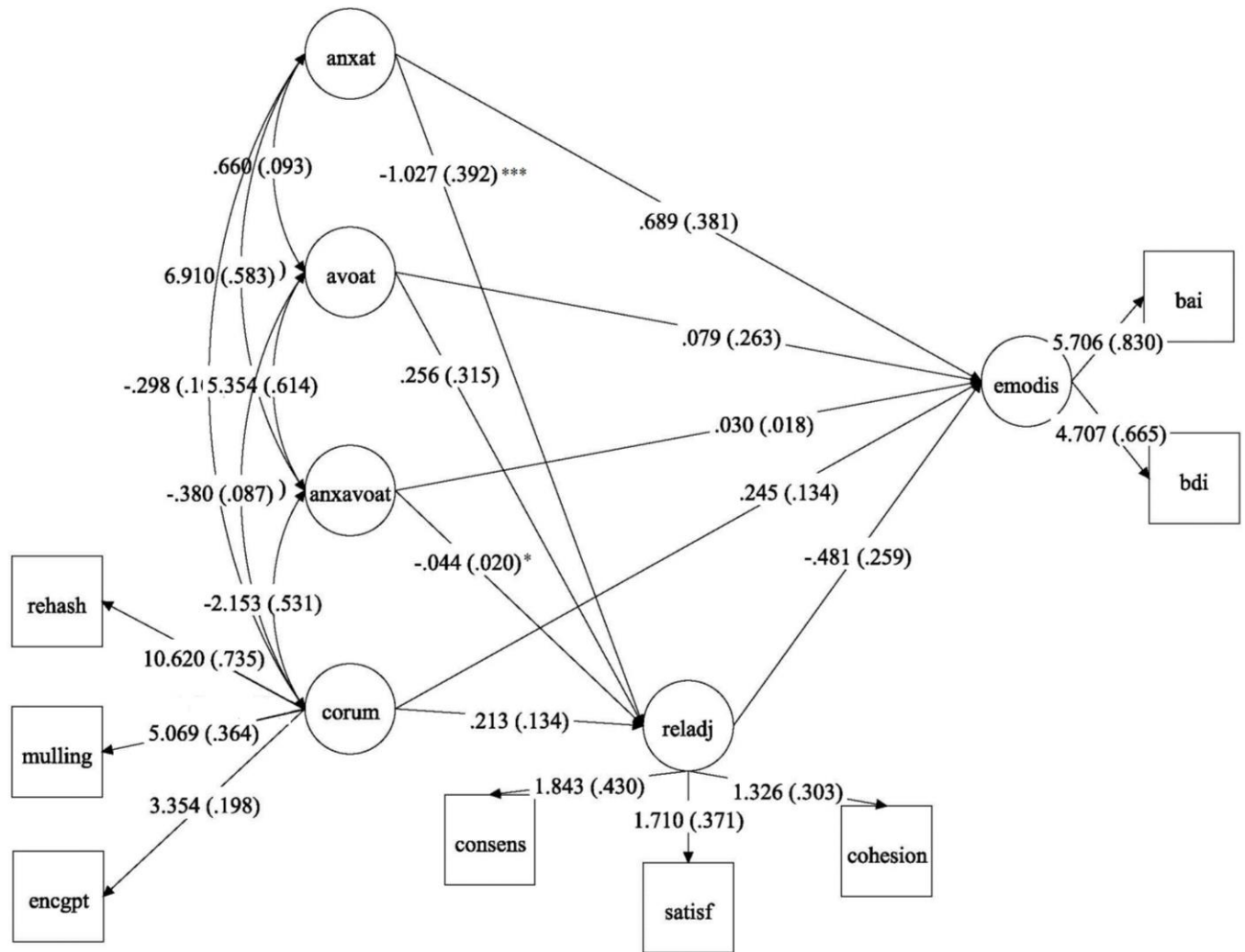


Figure 7. * $p < .05$, ** $p < .01$. The structural model of the exploratory relations among attachment styles, co-rumination, relationship adjustment, and emotional distress. Directional paths show unstandardized estimates with standard errors in parentheses. Circles represent latent variables. For organizational purposes, the residual variances and manifest variables were omitted from this model. Anxat = anxious attachment; avoat = avoidant attachment; anxxavo = anxious by avoidant attachment; corum = co-rumination; rehash = rehashing; mulling = mulling; encgpt = encouraging problem talk; reladj = relationship adjustment; consens = consensus; satisf = satisfaction; cohesion = cohesion; emodis = emotional distress; bai = anxiety; bdi = depression.

Appendix A

Demographic Questionnaire

What is your age? _____

What is your gender?

Woman

Man

Transgender

What is your current relationship status?

Single, never married

Dating someone exclusively, living separately

Living with a steady partner, not married

Married

Divorced

Separated

Widowed

If you indicated you are married, how long have you been married to your current partner? ____

If you indicated you are married, indicate your current living situation:

Living together

Living separately for practical reasons

Living separately due to relationship problems

How many children do you have? _____

How many children are currently living with you? _____

How would you describe your sexual orientation?

Heterosexual

Gay

Lesbian

Bisexual

Asexual

Pansexual

What is the highest level of education you completed?

Did not complete high school

High school or GED

Vocational/technical school (2 year)

Some college

Bachelor's degree

Master's degree

Doctoral degree

What is your current employment status?

Employed part-time

Employed full-time

Unemployed, looking for work

Unemployed, not looking for work

Student

Military

Retired

Unable to work

What is your race/ethnicity?*

Caucasian/White

African American

Asian American

Hispanic

American Indian

Other (please specify): _____

What is your current household income in US dollars?

Under \$10,000

\$10,000-25,000

\$25,000-\$50,000

\$50,000-\$100,000

Over \$100,000

What is your religious affiliation?

Christian

Jewish

Muslim

Buddhist

Hindu

Atheist

Agnostic

None of the above

**I inadvertently omitted this item from study administration and thus responses were not collected for inclusion in the data analysis.*

Appendix B

Experiences in Close Relationships-Revised (ECR-R) Questionnaire

Instructions: The statements below concern how you feel in emotionally intimate relationships. We are interested in how you *generally* experience relationships, not just in what is happening in current relationships. Respond to each statement by selecting the answer that best indicates how much you agree or disagree with the statement on a scale from 1 to 7, where 1 = Strongly disagree and 7 = Strongly agree (and 4 = Neither disagree nor agree).

1. I'm afraid that I will lose others' love.
2. I often worry that others will not want to stay with me.
3. I often worry that others don't really love me.
4. I worry that others won't care about me as much as I care about them.
5. I often wish that others' feelings for me were as strong as my feelings for them.
6. I worry a lot about my relationships.
7. When others are out of sight, I worry that they might become interested in someone else.
8. When I show my feelings for others, I'm afraid they will not feel the same about me.
9. I rarely worry about others leaving me.
10. Others make me doubt myself.
11. I do not often worry about being abandoned.
12. I find that others don't want to get as close as I would like.
13. Sometimes others change their feelings about me for no apparent reason.
14. My desire to be very close sometimes scares people away.
15. I'm afraid that once someone gets to know me, he or she won't like who I really am.
16. It makes me mad that I don't get the affection and support I need from others.
17. I worry that I won't measure up to other people.
18. Others only seems to notice me when I'm angry.
19. I prefer not to show others how I feel deep down.
20. I feel comfortable sharing my private thoughts and feelings with others.
21. I find it difficult to allow myself to depend on others.
22. I am very comfortable being close to others.
23. I don't feel comfortable opening up to others.
24. I prefer not to be too close to others.
25. I get uncomfortable when others want to be very close.
26. I find it relatively easy to get close to others.
27. It's not difficult for me to get close to others.
28. I usually discuss my problems and concerns with others.
29. It helps to turn to others in times of need.
30. I tell others just about everything.
31. I talk things over with others.
32. I am nervous when others get too close to me.
33. I feel comfortable depending on others.
34. I find it easy to depend on others.
35. It's easy for me to be affectionate with others.
36. Others really understand me and my needs.

Appendix C

Co-Rumination Questionnaire (CRQ)

When We Talk About Our Problems

People often encounter problems, including work stress, such as struggling to get along with a boss; financial stress, such as paying bills; family stress, such as having kids or siblings with behavioral issues or taking care of aging parents; and conflict about a relationship, such as disagreements about how to spend time together or how to distribute chores. Think about the way you usually are with your *SPOUSE*, especially within the PAST MONTH, and indicate the choice for each of the following statements that best describes you.*

1. We spend most of our time together talking about problems that my partner or I have.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

2. If one of us has a problem, we will talk about the problem rather than talking about something else or doing something else.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

3. After my partner tells me about a problem, I always try to get my partner to talk more about it later.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

4. When I have a problem, my partner always tries really hard to keep me talking about it.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

5. When one of us has a problem, we talk to each other about it for a long time.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

6. When we see each other, if one of us has a problem, we will talk about the problem even if we had planned to do something else together.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

7. When my partner has a problem, I always try to get my partner to tell me every detail about what happened.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

8. After I've told my partner about a problem, my partner always tries to get me to talk more about it later.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

9. We talk about problems that my partner or I are having almost every time we see each other.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

10. If one of us has a problem, we will spend our time together talking about it, no matter what else we could do instead.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

11. When my partner has a problem, I always try really hard to keep my partner talking about it.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

12. When I have a problem, my partner always tries to get me to tell every detail about what happened.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

When we talk about a problem that one of us has....

1. ... we will keep talking even after we both know all of the details about what happened.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

2. ... we talk for a long time trying to figure out all of the different reasons why the problem might have happened.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

3. ... we try to figure out every one of the bad things that might happen because of the problem.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

4. ... we spend a lot of time trying to figure out parts of the problem that we can't understand.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

5. ... we talk a lot about how bad the person with the problem feels.

1 2 3 4 5
Not At All True A Little True Somewhat True Mostly True Really True

6. ... we'll talk about every part of the problem over and over.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

When we talk about a problem that one of us has...

7. ... we talk a lot about the problem in order to understand why it happened.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

8. ... we talk a lot about all of the different bad things that might happen because of the problem.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

9. ... we talk a lot about parts of the problem that don't make sense to us.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

10. ... we talk for a long time about how upset is has made one of us with the problem.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

11. ... we usually talk about that problem every day even if nothing new has happened.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

12. ... we talk about all of the reasons why the problem might have happened.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

13. ... we spend a lot of time talking about what bad things are going to happen because of the problem.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

14. ... we try to figure out everything about the problem, even if there are parts that we may never understand.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

15. ... we spend a long time talking about how sad or mad the person with the problem feels.

| | | | | |
|-----------------|---------------|---------------|-------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| Not At All True | A Little True | Somewhat True | Mostly True | Really True |

* This wording was changed from the original CRQ to further clarify the instructions.

Appendix D

Revised Dyadic Adjustment Scale (RDAS)

Most people have disagreements in their relationships. Please indicate below the extent of agreement or disagreement between you and your partner for each item.

| | Always Agree (5) | Almost Always Agree (4) | Occasionally Agree (3) | Frequently Disagree (2) | Almost Always Disagree (1) | Always Disagree (0) |
|---|-------------------------|--------------------------------|-------------------------------|--------------------------------|-----------------------------------|----------------------------|
| 1. Religious matters | | | | | | |
| 2. Demonstrations of affection | | | | | | |
| 3. Making major decisions | | | | | | |
| 4. Sex relations | | | | | | |
| 5. Conventionality (correct or proper behavior) | | | | | | |
| 6. Career decisions | | | | | | |

| | All the Time (0) | Most of the time (1) | More often than not (2) | Occasionally (3) | Rarely (4) | Never (5) |
|---|---------------------|-------------------------|----------------------------|---------------------|---------------|--------------|
| 7. How often do you discuss or have you considered divorce, separation, or terminating your relationship? | | | | | | |
| 8. How often do you and your partner quarrel? | | | | | | |
| 9. Do you ever regret that you married (or lived together)? | | | | | | |

| | | | | | | |
|--|--|--|--|--|--|--|
| 10. How often do you and your mate "get on each other's nerves"? | | | | | | |
|--|--|--|--|--|--|--|

| | | | | | |
|--|------------------|-------------------------|---------------------|---------------|--------------|
| | Every Day (4) | Almost Every Day (3) | Occasionally (2) | Rarely (1) | Never (0) |
| 11. Do you and your mate engage in outside interests together? | | | | | |

How often would you say the following events occur between you and your mate?

| | | | | | | |
|--|--------------|-------------------------------|------------------------------|-----------------------------|-------------------|-------------------|
| | Never (0) | Less than once a month (1) | Once or twice a month (2) | Once or twice a week (3) | Once a day (4) | More often (5) |
| 12. Have a stimulating exchange of ideas | | | | | | |
| 13. Work together on a project | | | | | | |
| 14. Calmly discuss something | | | | | | |

| | | | | |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|
| <i>For office use only</i> | <i>CON</i> | <i>SAT</i> | <i>COH</i> | <i>TOT</i> |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|

Appendix E

Beck Depression Inventory (BDI-I)

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group that best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure to read all the statements in each group before making your choice.

1. 0 I do not feel sad.
 1 I feel sad.
 2 I am sad all the time and I can't snap out of it.
 3 I am so sad or unhappy that I can't stand it.

2. 0 I am not particularly discouraged about the future.
 1 I feel discouraged about the future.
 2 I feel I have nothing to look forward to.
 3 I feel that the future is hopeless and that things cannot improve.

3. 0 I do not feel like a failure.
 1 I feel I have failed more than the average person.
 2 As I look back on my life, all I can see is a lot of failures.
 3 I feel I am a complete failure as a person.

4. 0 I get as much satisfaction out of things I used to.
 1 I don't enjoy things the way I used to.
 2 I don't get real satisfaction out of anything anymore.
 3 I am dissatisfied or bored with everything.

5. 0 I don't feel particularly guilty.
 1 I feel guilty a good part of the time.
 2 I feel quite guilty most of the time.
 3 I feel guilty all of the time.

6. 0 I don't feel disappointed in myself.
 1 I am disappointed in myself.
 2 I am disgusted with myself.
 3 I hate myself.

7. 0 I don't feel I am being punished.
 1 I feel I may be punished.
 2 I expect to be punished.
 3 I feel I am being punished.

8. 0 I don't feel I am any worse than anybody else.
1 I am critical of myself for my weaknesses or mistakes.
2 I blame myself all the time for my faults.
3 I blame myself for everything bad that happens.
9. 0 I don't have any thoughts of killing myself.
1 I have thought of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.
10. 0 I don't cry any more than usual.
1 I cry more now than I used to.
2 I cry all the time now.
3 I used to be able to cry, but now I can't even cry though I want to.
11. 0 I am no more irritated now than I ever am.
1 I get annoyed or irritated more easily than I used to.
2 I feel irritated all the time now.
3 I don't get irritated at all by the things that used to irritate me.
12. 0 I have not lost interest in other people.
1 I am less interested in other people than I used to be.
2 I have lost most of my interest in other people.
3 I have lost all of my interest in other people.
13. 0 I make decisions about as well as I ever could.
1 I put off making decisions more than I used to.
2 I have greater difficulty in making decisions than before.
3 I can't make decisions at all anymore.
14. 0 I don't feel I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.
15. 0 I can work about as well as before.
1 It takes an extra effort to get started at something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.
16. 0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back

to sleep.

17. 0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.
18. 0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.
19. 0 I haven't lost much weight, if any, lately.
1 I have lost more than 5 pounds. I am purposely trying to lose weight.
2 I have lost more than 10 pounds.
→ By eating less? Yes_____ No_____.
3 I have lost more than 15 pounds.
20. 0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems that I cannot think of anything else.
21. 0 I have not noticed any recent changes in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

Appendix F

Beck Anxiety Inventory (BAI)

A list of common symptoms of anxiety is presented here. Indicate how much you have been bothered by each symptom during the PAST MONTH, INCLUDING TODAY by choosing the number of the corresponding description beneath the symptom.

| | 0 Not at all | 1 Mildly | 2 Moderately: It did not bother me | 3 Severely: It was very unpleasant, but I could stand it | 4 I could barely stand it |
|--|-----------------|-------------|---------------------------------------|---|------------------------------|
| 1. Numbness or tingling | 0 | 1 | 2 | 3 | 4 |
| 2. Feeling hot | 0 | 1 | 2 | 3 | 4 |
| 3. Wobbliness in legs | 0 | 1 | 2 | 3 | 4 |
| 4. Unable to relax | 0 | 1 | 2 | 3 | 4 |
| 5. Fear of the worst happening | 0 | 1 | 2 | 3 | 4 |
| 6. Dizzy or lightheaded | 0 | 1 | 2 | 3 | 4 |
| 7. Heart pounding or racing | 0 | 1 | 2 | 3 | 4 |
| 8. Unsteady | 0 | 1 | 2 | 3 | 4 |
| 9. Terrified | 0 | 1 | 2 | 3 | 4 |
| 10. Nervous | 0 | 1 | 2 | 3 | 4 |
| 11. Feeling of choking | 0 | 1 | 2 | 3 | 4 |
| 12. Hands trembling | 0 | 1 | 2 | 3 | 4 |
| 13. Shaky | 0 | 1 | 2 | 3 | 4 |
| 14. Fear of losing control | 0 | 1 | 2 | 3 | 4 |
| 15. Difficulty breathing | 0 | 1 | 2 | 3 | 4 |
| 16. Fear of dying | 0 | 1 | 2 | 3 | 4 |
| 17. Scared | 0 | 1 | 2 | 3 | 4 |
| 18. Indigestion or discomfort in abdomen | 0 | 1 | 2 | 3 | 4 |
| 19. Faint | 0 | 1 | 2 | 3 | 4 |
| 20. Face flushed | 0 | 1 | 2 | 3 | 4 |
| 21. Sweating (not due to heat) | 0 | 1 | 2 | 3 | 4 |

Appendix G

Hassles Scale

Now that you have answered questions about how you and your *SPOUSE* usually discuss problems, please think about the *content* of the problems that you generally discuss.

Please thoroughly read and consider the following list of problems. Then, choose the TOP THREE problems that you are most likely to discuss with your partner. Rank each problem, with 1 being the problem you most frequently discuss, 2 being the problem you discuss second most frequently, etc. If you do not see the problem you frequently discuss, then write it in the “other” section.

- | | |
|--|--|
| 1) Misplacing or losing things | 53) Fear of confrontation |
| 2) Troublesome neighbors | 54) Not enough money for healthcare |
| 3) Social obligations | 55) Feeling lonely |
| 4) Inconsiderate smokers | 56) Concerns about accidents |
| 5) Troubling thoughts about your future | 57) Concerns about getting a loan/credit |
| 6) Thoughts about death | 58) Having to wait in lines |
| 7) Health of a family member | 59) Too much time on your hands |
| 8) Not enough money for clothing | 60) Unexpected company |
| 9) Not enough money for housing | 61) Too many interruptions |
| 10) Concerns about owing money | 62) Not enough money for food |
| 11) Concerns about money for emergencies | 63) No enough money for necessities |
| 12) Someone owes you money | 64) Dislike coworkers |
| 13) Financial responsibility for someone who doesn't live with you. | 65) Dislike current work duties |
| 14) Conserving electricity, water, etc. | 66) Laid-off or out of work |
| 15) Smoking too much | 67) Concerns about retirement |
| 16) Use of alcohol | 68) Care for pets |
| 17) Personal use of drugs | 69) Concerns about job security |
| 18) Too many responsibilities | 70) Housekeeping responsibilities |
| 19) Decisions about having children | 71) Trouble making decisions |
| | 72) Difficult customers/clients |

- 20) Non-family members living with you
- 21) Planning meals
- 22) Concerns about the meaning of life
- 23) Trouble relaxing
- 24) Problems getting along with coworkers
- 25) Concerns about medical treatment
- 26) Fear of rejection
- 27) Sexual problems due to physical causes
- 28) Sexual problems other than physical
- 29) Friends or relatives too far away
- 30) Wasting time
- 31) Filling out forms
- 32) Financing children's education
- 33) Gender bias/harassment at work
- 34) Being exploited
- 35) Rising prices of common goods
- 36) Not getting enough sleep
- 37) Problems with your children
- 38) Problems with younger people
- 39) Problems with older people
- 40) Unchallenging work
- 41) Concerns about meeting high standards
- 42) Financial dealing with friends
- 43) Trouble reading, writing, or spelling
- 44) Trouble with math
- 45) Legal problems
- 46) Not enough time to get things done
- 47) Not enough energy
- 73) Physical appearance
- 74) Difficulties getting pregnant
- 75) Concerns about health in general
- 76) Social isolation
- 77) Preparing meals
- 78) Auto maintenance
- 79) Neighborhood deterioration
- 80) Declining physical abilities
- 81) Concerns about bodily functions
- 82) Not getting enough rest
- 83) Problems with aging parents
- 84) Problems with your lover
- 85) Difficulties seeing or hearing
- 86) Too many things to do
- 87) General job dissatisfaction
- 88) Worry about changing jobs
- 89) Too many meetings
- 90) Problems with divorce/separation
- 91) Gossip
- 92) Concerns about weight
- 93) Watching too much television
- 94) Concerns about inner conflicts
- 95) Feeling conflicted about what to do
- 96) Regrets over past decisions
- 97) Menstrual problems
- 98) The weather
- 99) Nightmares
- 100) Concerns about getting ahead

- | | |
|---|--|
| 48) Side effects of medication | 101) Hassles from boss/supervisor |
| 49) Physical illness | 102) Difficulties with friends |
| 50) Inability to express yourself | 103) Overload of family responsibilities |
| 51) Silly practical mistakes | 104) Problems with employees |
| 52) Financial security | 105) Not enough time for family |
| 106) Transportation problems | 117) Crime |
| 107) Not enough money for transportation | 118) Traffic |
| 108) Not enough money for recreation | 119) Pollution |
| 109) Shopping responsibilities | |
| 110) Prejudice/discrimination from others | |
| 111) Property, investments, or taxes | Have we missed any of your current |
| 112) Not enough time for recreation | hassles? |
| 113) Home maintenance (inside) | If so, write them below: |
| 114) Yard work/outside maintenance | 120) _____ |
| 115) Concerns about current events | 121) _____ |
| 116) Noise | 122) _____ |

Please further describe each problem you ranked in your own words.
