ADULT ATTACHMENT AND SYMPTOM DISTRESS:

A DYADIC MODEL OF COUPLES IN THERAPY

by

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(Under the Direction of Lee N. Johnson)

ABSTRACT

This study used the Actor-Partner Interdependence Model (APIM; Kenny & Cook, 1996) to examine both actor and partner effects of attachment anxiety and avoidance for male and female partners simultaneously. This study offers a unique method for assessing the role of adult attachment dimensions that influence mental health symptoms in therapy. Several previous findings within the clinical and attachment literature were supported, as well as some new perspectives on attachment dimensions among couples in therapy. Actor effects of women's anxiety and avoidance were detected in the model. Female partner effects of anxiety and avoidance on male partners' symptom distress following four sessions of couple therapy. As well, a partner effect was indicated by men's avoidance on female partners' symptom distress after four sessions of therapy. Results from the exploratory factor analysis of the Experiences in Close Relationships measure (Brennan, Clark, & Shaver, 1998) offer a means to more accurately assess attachment dimensions of couples in therapy.

INDEX WORDS: Adult attachment, Couple therapy, Actor-partner interdependence model

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DEDICATION

For my mother, Carol Parker, to whom I will always be securely attached.

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I will never be able to fully convey my level of respect and admiration for my major professor, Dr. Lee Johnson. I would like to acknowledge his investment in my development as a student, clinician, and a person. I am extremely grateful for his guidance and I am honored to have been his student. In addition, I would like to express my deep appreciation to my committee members, Dr. Maria Bermúdez and Dr. David Wright, for their contributions to my professional, academic, and personal development. They have each mentored me in different ways and I am privileged to have had the opportunity to work with them. I would also like to thank my friend and colleague, Dr. Rachel Tambling. She has provided me with encouragement during times of struggle and celebration during times of success. Finally, I would like to recognize the love and acceptance I have received from my family members. Carol, Parker, and Sam have each taught me through their own actions to show courage, learn from mistakes, and always persevere.

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CHAPTER 1

Introduction

Adult attachment style has been well substantiated as an influence on one's personal psychological functioning; namely, individuals with secure attachment demonstrate superior psychological functioning. In contrast, those classified as attachment styles other than secure, experience more mental health symptoms as indicated by increased symptom distress (Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998; Hazan & Shaver, 1987; Mikulincer & Shaver, 2007; Simpson & Rholes, 1998). While personal attachment has indicated a strong influence on psychological distress, partner's attachment has been comparatively less explored as a predictor of mental health symptoms associated with psychological functioning. This gap in the literature is reflected by the calls for an examination of individual and partner's attachment style as a factor influencing one's symptom distress (Lopez, Mauricio, Gormley, Simko, Berger, 2001; Wei, Heppner, Mallinckrodt, 2003; 2005). Based on preliminary findings supporting a relationship between one's partner's attachment on psychological functioning (Whiffen, 2005), couple therapy may be a preferable alternative to the treatment of individual symptom distress. In the present study, symptom distress is defined as individual mental health symptoms, including depression and anxiety-related symptoms. The relevance of such findings could guide the approach used by clinicians treating symptom distress, which have influenced the goals of the present study.

In order to address suggestions for future research on personal and partner's attachment style as a factor affecting symptom distress, the aim of the present study is to identify the

interactive role of individual and partner attachment in mental health symptom over time over the course of therapy. More specifically, the present study will expand on the literature in several ways. First, findings will contribute to a greater understanding of couple therapy as a compelling means of treating symptom distress as measured by reduction in symptoms over time. Second, avoidance and anxiety attachment dimension are examined as separate factors affecting symptom distress to determine the unique influence of each in therapy. Next, the interactive nature of the attachment dimensions are explored by examining partner effects among a sample of heterosexual couples. Finally, gender influences of both attachment anxiety and avoidance are described among partners. However, it is first necessary to compare the attachment perspectives of stability over time and the propensity for change as they pertain to the present study.

There are generally two overarching perspectives when assessing adult attachment style in order to examine the influence on adult relationships (Brennan, Clark, & Shaver, 1998). The first perspective assumes that family of origin experiences are carried into adulthood, providing relative stability of attachment style over the life course. In a seminal article on attachment, Main and her colleagues (1985) conceptualize the "internal working model" of attachment as… "a set of conscious and/or unconscious rules for the organization of information relevant to attachment and for obtaining or limiting access to that information, that is, information regarding attachment-related experiences, feelings, ideations" (p. 66-67). From this perspective, attachment is assessed through detailed interviews with the individual about one's attachment experiences (Main, Kaplan, & Cassidy, 1985). The Adult Attachment Interview (AAI) determines attachment style through the language used by the participant to describe his or her relationship with the family of origin. In contrast to the position of attachment stability used by Main and her

colleagues, Bartholomew & Horowitz (1991) have also proposed an adult attachment model, which also incorporates the idea of the internal working model.

Bartholomew & Horowitz's (1991) model of adult attachment utilizes current attachment experiences in relationships to determine adult attachment style. This perspective of adult attachment is characterized by the assumption that the internal working model of relationships influences, but does not determine adult attachment. The authors suggest attachment experiences in adulthood are interpreted through the internal working model, but present context may also be incorporated. Therefore, adult attachment may be subject to change due to the influence of one's current partner and present circumstances. The capacity for attachment change based on relational context highlights the need to examine both personal and partner's attachment and psychological functioning to determine clinical efficacy in the reduction of symptom distress. To follow is a discussion of the relevant literature on couple therapy as a treatment for symptom distress that has guided the present study.

Findings from this study contribute to the clinical literature by providing a greater understanding of the role of attachment anxiety and avoidance in couple therapy for the treatment of individual symptom distress. The two attachment dimensions, named by Bartholomew & Horowitz (1991) as anxiety and avoidance, are examined separately as variables affecting symptom distress. By examining each dimension as a separate factor, unique influences of men and women's anxiety and avoidance on symptom distress were detected through actor and partner effects in the model. In order to apply the results from the model to clinical practice, Emotionally Focused Therapy (EFT; Johnson, 1996) is offered as a lens for incorporating the unique actor and partner effects into a couple therapy approach. Findings from this study indicate

attachment-informed interventions could be used in couple therapy to reduce individual symptom distress.

CHAPTER 2

Literature Review

Couple Therapy in Treating Distress

There is general acknowledgement of clinical treatment as an effective means of reducing mental health symptoms within in the literature, despite conflicting evidence of a superior model of therapy (See Lambert & Ogles, 2004 for review). Couple-related factors have been shown to affect the presence or severity of mental health symptoms, yet there remains a disparity in the literature evaluating couple therapy as a means for treatment of mental health concerns. Notably, research that examines the reduction of depressive symptoms through couple therapy has provided compelling results. In a review of empirical studies comparing marital therapy with individual therapy and waitlist controls, Beach (2003) determined marital therapy may be used as an effective form of treatment for depressive symptoms. The author highlights the relationship between interpersonal difficulty and depressive symptoms that potentially develop a vicious cycle that is more adequately addressed through couple therapy (Beach, 2003).

Particular variables among clients indicate that they may well experience greater benefits from marital therapy, as opposed to individual psychotherapy. Specifically, clients expressing greater concern about relationship difficulties and those who view relationship concerns as having preceded depressive symptoms may benefit more from marital therapy (Beach, Fincham, & Katz, 1998). Additionally, couples with a depressed partner frequently engage in behaviors that support adverse processes among the couple, such as increased negative interaction with one another and decreased problem-solving skills (Beach et al., 1998; Fincham & Beach, 1999; Schmaling & Jacobson, 1990). Such findings underscore the reciprocal nature of mental health

functioning and the significance of the relational variables noted above. The current study is intended to contribute to the literature on couple therapy for use in treating individual mental health symptoms, as opposed to relational distress alone.

Presently there is strong support for the clinical effectiveness of couple therapy as a means of treating individual symptom distress using a behavioral approach. Specifically, Integrative Behavioral Couple Therapy (IBCT; Jacobson & Christensen, 1996) has been developed to work with clients experiencing both relational distress and depressive symptoms. Through a combination of acceptance of one's partner and behavioral change, the model has repeatedly demonstrated clinical effectiveness among couples experiencing depression (Jacobson, Christensen, Prince, Cordova, Eldridge, 2000; Jacobson, Dobson, Fruzzetti, Schmaling, Salusky, 1991). Participants being treated for depressive symptoms using a behavioral couple approach have been observed to be more likely to use negative and aggressive statements, emotionally withdraw, and experience jealousy (Fincham & Beach, 1999; Schmaling & Jacobson, 1990). While the authors bolster a behavioral approach to reduce symptom distress, the previously mentioned observations are also behaviors associated with particular attachment styles. Therefore, it is important to explore attachment-based models of therapy in treating mental health symptoms using couple therapy.

Fincham & Beach (1999) acknowledge the significance of adult attachment style in understanding the relationship between symptom distress and marital conflict by stating attachment-influenced responses are, "…not often available to conscious introspection, leading to spouses' failure to understand or be able to adequately explain their own reactions and behavior" (p.57). While one's personal attachment style has consistently shown an association to personal psychological functioning, the influence of partner's attachment on symptom distress

remains unclear. Empirical results on the influence of personal and partner attachment style on symptom distress have been inconclusive (Frei & Shaver, 2002; Scott & Cordova, 2002; Treboux, Crowell, & Waters, 2004; Wampler, Shi, Nelson, & Kimball, 2003). Below, the extant literature on the influence of attachment theory on personal and partner's symptom distress is discussed.

Attachment Theory

Adult attachment has a significant role in therapeutic outcomes. Results of this study are intended to provide greater insight for clinicians into attachment-related concerns regardless of their theoretical approach. In addition to couple-related concerns, couple therapy may be a preferable alternative to the treatment of individual symptom distress, based on the influence of partner attachment on personal psychological functioning (Whiffen, 2005). Mikulincer & Shaver (2007) explain, "…[insecure attachment] forms a densely interwoven web of cognitions, emotions, motives, behaviors, and patterns of relating to others that may create a general vulnerability to breakdown…" (p. 372). It follows that therapeutic interventions aimed at adjusting one or more of these areas may affect overall attachment functioning. In order to examine the role of attachment in therapy, however, it is first necessary to review the specific components of Attachment Theory.

Internal working model

Attachment theory (Bowlby, 1969; 1973) posits one's emotional security and stability develop through an ever-evolving, working model of interpersonal relationships over the life course, which begins with the primary caregiver. Bowlby (1973), suggests the two fundamental determinants of one's style of attachment are, "(a) whether or not the attachment figure is there for support and protection; and (b) whether or not the self is judged to be the sort of person

towards whom anyone, and the attachment figure in particular, is likely to respond in a helpful way" (p. 204). An infant's behavior that successfully elicits a response from the caregiver, along with the caregiver's response are both stored to long-term memory and incorporated into one's "internal working model" of relationships (Bowlby, 1969). In essence, experiences of support or rejection provided by the caregiver are incorporated into one's internal working model of relationships. The internal working model is described as an active construction, guiding the behavior and feelings toward significant others, which may become maladaptive if outdated or inaccurate (Cassidy, 1995). Therefore, unresponsive caregiving in childhood may result in a perception of one's own self-worth as low, and/or the interpretation of significant other's potential for meeting needs as unreliable in adulthood.

In adulthood, one's partner becomes the object of attachment from which the individual seeks to provide care and receive support (Brennan, Clark, & Shaver, 1998). The significance of including partner's attachment style in an examination of symptom distress reduction is highlighted by findings that suggest attachment dimensions affect one's ability to provide support. Particularly, increased avoidance demonstrates an inclination to respond to partner distress with distance, while those with high anxiety view partner distress as a reflection of their self-worth, hindering his or her ability to provide support (Mikulincer & Shaver, 2005). More specifically, the present study examines attachment insecurity in two dimensions found to be the result of inconsistent or consistently unresponsive caregiving in childhood. It is therefore assumed that the internal working model manifests in adulthood through various levels of anxiety and avoidance (Bartholomew & Horowitz, 1996).

Attachment style in adulthood organizes beliefs about the worthiness of one's self as a partner, as well as the intentions of significant others in relationships (Hazan & Shaver, 1987).

Building on the original work of Hazan & Shaver's (1987) model of adult attachment, Bartholomew and Horowitz (1991) have proposed a four-category model related to adult attachment. Each person's position on two dichotomized scales related to personal beliefs about both the self (anxiety) and others (avoidance) results in four potential styles of attachment: secure, preoccupied, fearful, and dismissing. Attachment is examined in the present study as the participant's score on each of the two continuous attachment dimensions, anxiety and avoidance.

Observing attachment in terms of continuous dimensions allows for a closer examination of attachment change over time, which is particularly relevant to clinicians evaluating change among clients experiencing symptom distress. While an individual may not change classification altogether (e.g., preoccupied to secure), one's current relationship may increase or decrease attachment functioning *within* a particular attachment style that would not be detected with a categorical measure. For example, Figure 1 (p. 9) represents the differences that may be present between two individuals of the same style. While points (a) and (b) are both a fearful attachment style, the difference in anxiety and avoidance dimensions may result in fundamentally different clinical outcomes. Each adult attachment style is composed of particular patterns of interactions with adult partners that are determined by their level of anxiety and avoidance.

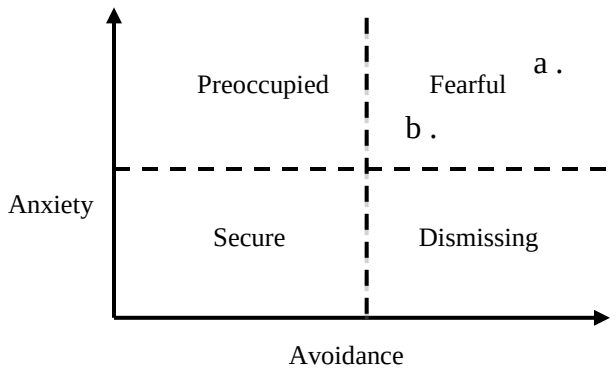


Figure 1: *Attachment Dimensions*

Attachment avoidance

The first attachment belief , "(a) whether or not the attachment figure is there for support and protection" (p. 204) is one element suggested by Bowlby (1973) to influence one's internal working model of relationships. The perception of caregivers' ability and willingness to provide support shapes an individual's level of attachment *avoidance*. Those who have been provided with inconsistent caregiving develop a negative working model of others, based on their beliefs about whether or not the caregiver can or will provide support (Mikulincer & Shaver, 2007). Specifically, avoidant individuals often perceive their partner's supportive behavior less positively than those with low avoidance (Campbell, Simpson, Boldry, and Kashy, 2005). In addition, individuals with high avoidance have been characterized by an intense physiological response to anger directed at the partner, while simultaneously denying any feelings of anger. It was suggested that the participants sought to suppress intense emotion in an attempt to maintain disconnection and independence, despite their fear of abandonment (Mikulincer, 1995).

Further research on adult attachment, suggests the manner in which the avoidant individuals behave in response to attachment-related threats is determined by their corresponding level of *anxiety*. The anxiety dimension will be discussed in greater detail, however, it is important to note the behavioral distinction of the two attachment styles characterized by increased avoidance. Bartholomew and Horowitz (1991) suggest that increased avoidance is coupled with either high or low anxiety, resulting in one of two attachment styles (i.e., fearful-avoidant or dismissing).

The working model of a fearful-avoidant style suggests others are unlikely to provide support and the individual is not worthy of support. In heterosexual couples, greater attachment avoidance resulted in increased personal distress (Rholes, Simpson, & Oriña, 1999). However,

participants' corresponding level of anxiety influenced their response to personal distress in relationships. In other words, fearfully-avoidant individuals experienced increased distress, but responded with proximity seeking, which is in contrast to dismissing participants who responded to distress with emotional avoidance. The combination of high avoidance and anxiety associated with the fearful-avoidant style, results in both a discomfort with closeness and emotional avoidance (Bartholomew & Horowitz, 1991). Mikulincer & Shaver (2007) suggest that this style of attachment leads people to distance from partners, while maintaining a need and desire for closeness from significant others.

In contrast, high avoidance and low anxiety, (i.e., dismissing), results in a lack of emotional investment, a value of self-reliance, and an overall avoidance of intimacy (Bartholomew, 1990; Henderson, Bartholomew, Trinkle, & Kwong, 2005). According to the views suggested by Bowlby (1969), described above, dismissing individuals maintain a positive view of self as worthy of support. However, such individuals hold a negative working model of others, due to the belief that others are unsupportive or unwilling to provide support. A dismissing attachment style is characterized by a tendency to suppress negative emotion and minimize the role of caregivers as a source of comfort, due to previous rejection during times of distress (Cassidy, 1995). The elevated level of avoidance associated with both dismissing and fearful-avoidant styles is strongly supported in the literature as an influence on psychological functioning. While the present study will offer a unique examination of individual and partner influence of attachment avoidance on symptom distress, the following findings have guided the research questions to be addressed.

The effect of attachment avoidance has shown conflicting results related to the manner in which psychological distress is influenced. Such inconsistency has been attributed to a lack of

distinction between avoidant styles, based on the corresponding anxiety dimensions (i.e., dismissing versus fearful-avoidant) (Lopez, Mauricio, Gormley, Simco, & Berger, 2001). Due to the rejection of previous caregivers, the presence of avoidance results in a tendency to respond to stress by disengaging from the source of stress. Cassidy (1995) explains that avoidant behaviors are incorporated into the working model in an effort to resist rejection from the caregiver. It follows that one may draw on previous experiences to guide behavior in adulthood during times of psychological distress. The identification of avoidant beliefs has shown to affect emotional repression and suppressive coping in response to stressful situations (Lopez et al., 2001; Mikulincer, 1995). While avoidant individuals report similar levels of anger as those who were securely attached, they display a more intense physiological arousal during times of anger and are more likely to attribute a hostile intent to partners (Mikulincer, 1995).

Attachment anxiety

The next dimension of attachment, labeled *anxiety*, addresses Bowlby's (1973) second dimension; "(b) whether or not the self is judged to be the sort of person towards whom anyone, and the attachment figure in particular, is likely to respond in a helpful way" (p. 204). Applied to the internal working model, attachment anxiety is generally associated with a negative working model of self and either a negative or positive working model of others, depending on the level of attachment avoidance, described above (Mikulincer & Shaver, 2007). Individuals exhibiting elevated levels of attachment anxiety often do not view themselves as worthy of support from caregivers. In the event that a partner offers support, anxious individuals view the efforts more positively than avoidant individuals (Campbell et al., 2005). However, during times of stress, those who identify as anxiously-attached interpret ambiguous partner reactions as less supportive and more upsetting than securely attached people (Collins & Feeney, 2004). Bartholomew and

Horowitz (1991) suggest high attachment anxiety may manifest differently, based on one's concurrent level of attachment avoidance (i.e., preoccupied and fearful-avoidant).

Preoccupied individuals are considered to have high anxiety, coupled with low avoidance. Such people exhibit a juxtapose need for closeness to others and an inherent fear of rejection and abandonment. Stated differently, preoccupied individuals view others as caring and responsive, but do not consider themselves worthy of care. Both preoccupied and fearful-avoidant styles experience heightened emotion at abandonment scenarios (Dutton, Saunders, Starzomski, Bartholomew, 1994). Due to low avoidance, the distress experienced by preoccupied individuals, results in proximity-seeking behavior. On the other hand, fearful-avoidant individuals often distance themselves from partners. However, they continue to experience a desire for love and support. Based on such ambivalent emotional experiences, fearfully avoidant individuals are described as the least secure and trusting, as well as the most troubled among adolescents and adults (Mikulincer & Shaver, 2007). Overall, the presence of attachment anxiety has been found to affect specific factors influencing psychological distress.

Findings suggest attachment anxiety influences one's processing of emotion or coping skills during psychologically stressful events (Campbell et al., 2005; Wei, Heppner, & Mallinckrodt, 2003). Mikulincer & Shaver (2007) have described this process as "anxious hyperactivation", which the individual is unable to alleviate (p. 194). The authors explain that heightened emotional experiences such as jealousy, anger, and fear are due to anxious peoples' tendency to keep memories of previous experiences of rejection or abandonment available in working memory. For example, anxious individuals may ruminate on negative thoughts of self-efficacy and worth, thereby maintaining or increasing the level of psychological distress. The heightened emotion and negative thought processes associated with anxiety have been strongly

supported as contributing factors to depression and anxiety-related symptoms (Bifulco, Moran, Ball, & Bernazzani, 2002; Hankin, Kassel, & Abela, 2005; Wei et al., 2003).

Symptoms of Distress

Attachment theory has been used as a lens through which many elements of psychological distress are examined. Specifically, anxiety and avoidance have repeatedly demonstrated a relationship to increased symptom distress (Bifulco et al., 2002; Cassidy, 1995; Eng, Heimberg, Hart, Schneier, & Liebowitz, 2001; Hankin et al., 2005; Roberts, Gotlib, & Kassel, 1996). Mikulincer & Shaver (2005) explain, "Insecure individuals' egocentric focus on their attachment-related worries and defenses can interfere with effective coordination of their own and their partners' needs" (p. 270). As such, the following sections will separately address both individual and partner attachment effects on individual psychological functioning. Specifically, this study will address the effect of attachment on symptom distress relief for clients in couple therapy. For the purposes of the current study, symptom distress is defined as one's experience of depressive- and anxiety-related symptoms.

Personal attachment and symptom distress

The relationship between attachment insecurity (i.e., elevated anxiety and/or avoidance) and depression/anxiety symptoms has been well established. When attachment anxiety and avoidance are examined separately, however, the relationship to distress becomes more complex. Preoccupied and fearful-avoidant (high anxiety) styles internalize distress by redirecting anger and resentment toward the self in an effort to maintain proximity and avoid rejection (Mikulincer & Shaver, 2005), which contributes to increased levels of personal symptom distress. Intra-personal variables examined to explain the process by which anxiety maintains or exacerbates symptom distress include poor coping methods and low self-esteem (Eng et al., 2001; Roberts et

al., 1996). It is assumed that such features result in an inability to self-soothe, leading to more intense negative affect and a tendency to ruminate on attachment-related threats (Mikulincer & Shaver, 2005). Such individuals have less ability to regulate the increased negative affect, thereby increasing emotional distress (Eng et al., 2001; Hankin et al., 2005). It may be recommended for such an individual in treatment to interrupt ruminating cognitive processes through either a cognitive or behavior approach to therapy, which has demonstrated effectiveness in reducing symptom distress for individuals (Lambert & Ogles, 2004). On the other hand, avoidant individuals' absence of abandonment fear has produced mixed findings.

While there is a well-substantiated effect of attachment anxiety on symptom distress, there is currently an unclear relationship between attachment avoidance and symptom distress prevalent throughout the literature. The conflicting results may be due to inconsistency in distinguishing between the two styles of avoidant attachment (i.e., fearful-avoidant, dismissing), suggested by Bartholomew & Horowitz (1991), which incorporate the co-occurring level of attachment anxiety. As mentioned above, the co-occurring levels of attachment anxiety and avoidance influence the manner in which symptom distress is manifested. Attachment avoidance alone (i.e., dismissing) is characterized by a defensive manner and overt self-reliance, in which normal emotions are blocked and distress goes unresolved (Mikulincer & Shaver, 2007). Wei and colleagues (2003) found a direct relationship between avoidance and symptom distress when examining attachment anxiety and avoidance separately. However, attachment avoidance has also failed to demonstrate a relationship to symptom distress among young adults (Lopez et al., 2001).

In an effort to address the distinction between symptom distress for fearful and dismissing styles, Bifulco et al., (2002) found that a fearful style, but not dismissing was

predictive of depressive symptoms. In other words, only when avoidance was coupled with increased anxiety was there a relationship with depressive symptoms. Increased avoidance often results in an absence of active problem-solving skills and reluctance to utilize external sources of emotional support (Mikulincer & Shaver, 2007). Dismissing individuals tend to value self-reliance and are unlikely to seek support for mental health symptoms experienced (Lopez et al., 2001; Vogel & Wei, 2005), whereas fearful-avoidant individuals are unable to ignore symptom distress. Increased anxiety and avoidance also affect one's ability to elicit and provide emotional support to his or her partner, highlighting the need to examine the interaction of both individual and partner effects of attachment on the treatment of symptom distress.

Partner attachment and symptom distress

Insecure individuals are often so consumed with avoiding either rejection (anxious) or interdependence (avoidance) that they become self-focused and unable to provide partner support during times of distress (Mikulincer & Shaver, 2007). As such, attachment has been studied extensively as an influencing factor of relational satisfaction, adjustment, and distress (Frei & Shaver, 2002; Scott & Cordova, 2002; Treboux et al., 2004; Wampler, Shi, Nelson, & Kimball, 2003). These variables of couple functioning have demonstrated mixed findings as a means for predicting individual symptom distress. Scott & Cordova (2002) found those with an anxious-ambivalent style (i.e., preoccupied) demonstrated a stronger correlation between relational distress and individual symptoms. In other words, those with anxious-ambivalent attachment were more negatively affected by the functioning of the relationship. Conversely, Wampler and colleagues (2003) suggest personal attachment, not partner behavior, influenced couple interactions when examining couple interactions from an attachment perspective.

The influence of attachment in relationships has also been found to vary by gender. When comparing the influence of attachment on symptom distress, anxious women married to avoidant men did not experience increased attachment anxiety or depressive symptoms (Whiffen, 2005). The author attributes such findings as women's likelihood to seek alternative sources of emotional support (e.g., friends or family members) when needed. Alternatively, anxious husbands were found to be more vulnerable to depression in the event that their spouses demonstrated higher levels of avoidance (Whiffen, 2005). Such contradictory findings further highlight the manner in which a partner may affect one's level of symptom distress.

It has been discussed that adult attachment is a useful lens for examining one's personal reaction to having his or her needs met based on the internal working model of relationships. Less explored, however, is the effect of attachment on one's ability to meet the needs of his or her partners. Those with high anxiety possess a fear of abandonment by significant others and may internalize partner's distress as a reflection on their personal worth. This may hinder an anxiously-attached partner's ability to soothe and provide support to their partner, depending on the level of avoidance (Mikulincer & Shaver, 2005). For example, consider Figure 2 (p. 17), in which Partner 1 (P1) has an attachment style represented by point (a) and Partner 2 (P2) has an attachment represented by point (b).

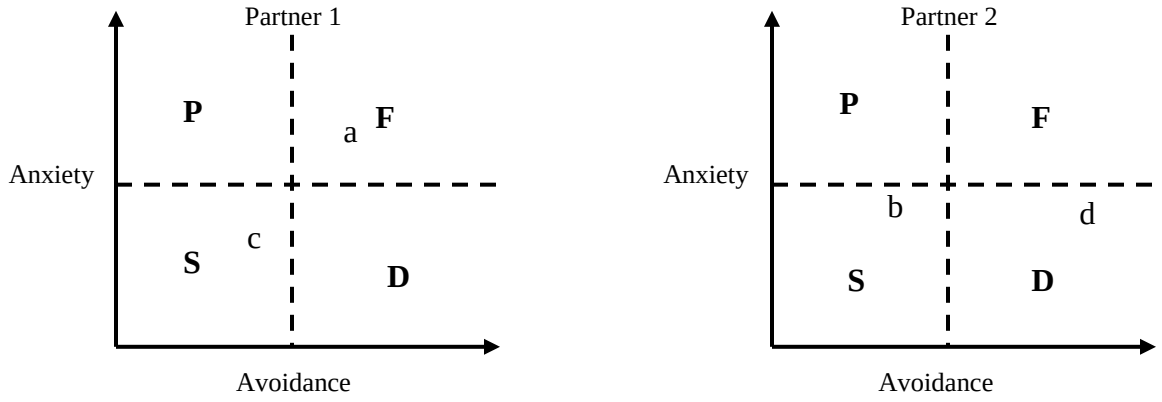


Figure 2: *Couple Attachment Interactions*

Although P2 is considered a "secure" style, he or she is also experiencing elevated anxiety, perhaps due to the presence of depressive or anxiety symptoms. In the event P2 seeks support from P1, P1 may be unable or unwilling to soothe the partner's distress. This may be due to the tendency for individuals with high anxiety to internalize their partner's symptoms as a reflection of their own personal worth. Although a particular model of therapy is not the focus of this study, it is suggested that such attachment interactions may be treated in the context of couple therapy. In therapy, an example of this hypothetical couple's interactions may mirror a woman experiencing depressive symptoms living with a partner that describes her behavior as lazy. P1 does not have the capacity to console her distress, so the partner responds by arguing about her symptoms. In contrast, P2 involved in a relationship with P1, whose attachment is represented by point (c), may experience support and comfort from her partner, thereby lowering the level of symptom distress.

Avoidant people experience a discomfort with emotional closeness, which contrary to anxious attachment, results in a tendency to distance during times of personal and partner distress. While secure attachment results in empathic compassion toward others, avoidant individuals respond to partners' distress by distance (Mikulincer & Shaver, 2005). Consider the same couple in Figure 2 (p. 17), where P1's attachment is represented by point (c) and P2's attachment is represented by point (d). In the event that P1 is experiencing symptom distress, P2 is likely to respond to his or her partner by emotional distancing. An example in therapy that is commonly discussed among such a couple is one that exhibits the "demand-withdraw" cycle (Johnson, 1996). This would be expected due to a dismissing individual's discomfort with emotional interdependence. As mentioned previously, dismissing individuals are not likely to

seek support from their partners or professional mental health services (Lopez et al., 2001; Vogel & Wei, 2005). Therefore, a couple in which one partner is not having their needs met by a dismissing individual may be the only context in which a dismissing individual may present for therapy.

It was expected that low avoidance and anxiety would be related to reduction of partner's symptom distress, due to the influence of anxiety and avoidance on the ability to provide comfort and support. Based on the relationship between symptom distress, attachment dimensions, and couple functioning discussed above, it follows that partner attachment dimensions will uniquely influence symptom distress.

The Present Study

While the link between adult attachment and personal psychological functioning has been well documented, the role of partner attachment in the treatment of symptom distress is relatively less explored. The purpose of the present study is to identify the role of self and partner attachment anxiety and avoidance in reducing symptom distress in couple therapy. More specifically, the present study will expand on the literature in several ways. First, findings will contribute to a greater understanding of couple therapy as a compelling means of treating symptom distress as measured by reduction in symptoms over time. Second, avoidance and anxiety attachment dimension are examined as separate factors affecting symptom distress to determine the unique influence of each individual in therapy. Next, the interactive nature of the attachment dimensions is explored by examining partner effects among a sample of heterosexual couples. Finally, gender influences of both attachment anxiety and avoidance are compared among partners. Findings from this study will guide interventions used by couple therapists

treating symptom distress in one or both partners. The following research questions are arranged by actor and partner effects:

Actor Effects:

1. What is the relationship of male partners' attachment anxiety at Time 1 with their own symptom distress at Time 2?
2. What is the relationship of male partners' attachment avoidance at Time 1 with their own symptom distress at Time 2?
3. What is the relationship of female partners' attachment anxiety with their own symptom distress at Time 2?
4. What is the relationship of female partners' attachment avoidance with their own symptom distress at Time 2?

Partner Effects:

5. What is the relationship of male partners' attachment anxiety at Time 1 with their female partners' symptom distress at Time 2?
6. What is the relationship of male partners' attachment avoidance at Time 1 with their female partners' symptom distress at Time 2?
7. What is the relationship of female partners' attachment anxiety with their male partners' symptom distress at Time 2?
8. What is the relationship of female partners' attachment avoidance with their male partners' symptom distress at Time 2?

CHAPTER 3

Methods

In the following section, demographic information for the sample at Time 1 is offered, followed by Time 2 sample characteristics. Reliability and validity information of the Experiences in Close Relationships questionnaire (ECR) (Brennan, Clark, & Shaver, 1998) and the Outcome Questionnaire – 45.2 (Lambert, Burlingame, Umphress, Hansen, Vermeersch, Clouse, & Yanchar, 1996; OQ-45.2) is then discussed. Next, the preliminary analyses, which includes attrition analyses comparing the variables of those couples that dropped out of therapy with those that remained in therapy for at least four sessions is explained. Finally, the primary analyses used to examine the model are discussed, including structural equation modeling (SEM) and exploratory factor analysis (EFA). While the initial model was tested using SEM, an EFA was also conducted on the attachment measure, the ECR, to examine any unexplained variance contributed by the measure.

Participants

The participants for the proposed study received couple therapy from one of two marriage and family therapy training clinics. The two training clinics from which data were collected are located at Auburn University and the University of Georgia (UGA). Both clinics are associated with COAMFTE accredited marriage and family therapy programs. However, the Auburn clinic is a master's level program, whereas the UGA program is a doctoral level program. Participants to be included in the analyses are clients involved in a committed heterosexual relationship, in which both partners are participating in therapy. The existing data

set does not currently include enough same-sex couples to examine potential differences and/or similarities in the model to be tested. Couples to be included in the proposed study completed at least four sessions of couple therapy for a variety of clinical concerns and submitted both the pre-session and fourth-session questionnaires. In order to assure no bias was introduced in the model by demographic variables that may have contributed to discontinuing therapy, demographic information was examined from the sample of couples that completed pre-session data (Time 1) and then reexamined following four sessions of therapy (Time 2).

Demographic information of sample at Time 1

The sample of couples that completed at least one session of couple therapy consisted of 569 couples (N = 569). 139 (24%) couples participated in at least one session of therapy at the University of Georgia clinic, while 429 (76%) couples sought therapy at the Auburn University clinic. The majority of men and women participating in the study were Caucasian (62.4% - men; 69.4% - women). 10.5% of men and 11.2% of women in the sample identified as African-American, 1.9% of men and women identified as Latino, and 2.8% of men and 3.2% of women identified as "other".

30.4% of the men and 26.5% of women in the sample at Time 1 reported a high school diploma or GED as their highest level of education. 14.5% of men and 15.5% of women received either associate's degree or vocational-technical school training. 25.5% of men and 29.4% of women in the sample received a bachelor's degree. 11.4% of men and 13.5% of women in the sample received a master's degree. 35.4% of men and 38.7% of women in the sample reported earning less than $20,000 as their yearly income, while 27.2% of men and 31.6% of women reported $20,001 to $40,000 for their yearly income. Finally, 22% of men and 20.7% of women in the sample received more than $40,000 for their yearly income.

At Time 1, 43.4% of the couples were married, 20% were in a committed relationship, and 28.1% were divorced or separated. Not all of the 569 couples chose to continue therapy until the fourth session. Therefore, the demographic information was collected from participants who remained in therapy for at least four sessions and analyzed separately as the sample at Time 2.

Demographic information of sample at Time 2

Among the 569 couples who completed pretreatment questionnaires, 297 couples (52%) also completed questionnaires at Time 2, following the fourth session therapy. 24.7% of the couples received therapy from the UGA clinic, while 75.3% of the couples received therapy at Auburn. The percentage of couples from both clinics at Time 2 is consistent with the percentage of couples at Time 1. The final sample (N = 297) included 67.6% men and 72.5% women who identified as Caucasian, 11.6% men and 11.1% women identifying as African-American, and 2.9% men and 1.9% of women identifying as Latino. 5.3% of men and 2.9% of women in the sample at Time 2 identified as "other".

27.5% of the men and 24.2% of women in the sample at Time 1 reported a high school diploma or GED as their highest level of education. 13.1% of men and 15% of women received either associate's degree or vocational-technical school training. 28% of men and 29% of women in the sample received a bachelor's degree. 10.6% of men and 16.4% of women in the sample received a master's degree. Annual income was less than $20,000 by 33.9% of men and 37.7% of women in the sample, while 32.9% of men and 35.3% of women reported $20,001 to $40,000 for their yearly income. Finally, 24.6% of men and 19.8% of women in the sample received more than $40,000 for their yearly income. The relationship status of the final sample of couples consisted of 39.1% married couples, 23.7% in a committed relationship, and 30.1% divorced or separated.

Measures

Adult attachment style

Adult attachment style was determined using the Experiences in Close Relationships questionnaire (Brennan et al., 1998; ECR). The measure is a 36-item, self-report scale (See Appendix A), which consists of two 18-item subscales, Anxiety and Avoidance. Responses are on a 7-point Likert scale, ranging from "*Disagree Strongly*" to "*Agree Strongly"*. The two 18-item subscales were constructed from the 36 items, retained following an exploratory factor analysis of 323 items derived from virtually every other self-report adult romantic attachment measure (Brennan et al., 1998), supporting the construct validity of the measure. The authors explain that the four clusters found in the EFA revealed four distinct groups, representing similar patterns to that of Bartholomew & Horowitz's (1991) model of adult attachment. The two scales were found to be nearly uncorrelated (r = .11), suggesting the measure captures two separate, underlying dimensions of adult attachment. Original alpha scores for both the avoidance (α = .94) and anxiety (α = .91) subscales indicate high reliability of the measure (Brennan et al., 1998).

The ECR produces stronger, more specific measurement precision compared to the Relationship Questionnaire (Bartholomew & Horowitz, 1991) and Collins and Read's Adult Attachment Scale (1990) (Fraley, Waller, & Brennan, 2000). The ECR provides two continuous subscale scores on each attachment dimension, which highlights differences in anxiety and avoidance among those in each category. Results more accurately discriminate participants through different degrees of attachment insecurity (Brennan et al., 1998). The authors also suggest the ECR is more conservative than Bartholomew & Horowitz's (1991) measure in classifying a person as secure, which has led to statistically stronger results. As such, assessing

adult attachment style with the ECR allows for more precise discrimination than any other prior measures (Brennan et al., 1998).

The ECR was developed using results from a sample of 1,086 undergraduates with a median age of 18 (Brennan et al., 1998). Therefore, it is unclear if any results obtained using the ECR extrapolate to populations other than college undergraduates. For the purpose of the present study, the population of interest consists of those involved in therapy, or a clinical population. While the measure has been used to examine various clinical variables, such as emotional reactivity and depression (Lopez et al., 2001; Wei, Vogel, Ku, & Zakalik, 2005), the psychometric properties of the measure have yet to be examined among a clinical sample. By exploring which items accurately identify components of attachment anxiety and avoidance among a clinical population, the effect on symptoms of distress may be determined.

Symptom distress

Symptom distress in the current study was determined using a subscale of the Outcome Questionnaire – 45.2 (Lambert et al., 1996; OQ-45.2). Responses are in the form of a 5-point Likert scale, ranging from "*Never*" to "*Almost Always*". The instrument is comprised of three dimensions or subscales, including symptomatic distress (SD), interpersonal functioning (IR), and social role performance (SR) (Lambert et al., 1996). For the purposes of this study, however, only the symptom distress subscale (See Appendix B) was used to determine symptom distress of participants. The IR and SR subscales will not be examined in the proposed analysis in an attempt to isolate individual psychological distress from interpersonal factors. Lambert et al. (1996) stated that the SD subscale demonstrated excellent internal consistency and stable test-retest reliability (R = .78).

Construct validity was tested for the measure by comparing clinical with non-clinical samples. The sensitivity index supported sufficient ability to differentiate those with clinical level distress from the community sample (Lambert et al., 1996). The complete measure has also demonstrated sensitivity to change over the course of therapy among heterogeneous populations, further supporting the construct validity of the measure (Vermeersch, Lambert, & Burlingame, 2000).

Procedures

A series of measures, including those mentioned above, are distributed to participants to assess for a variety of clinical concerns. At the initial intake, clients are invited to sign a consent form for research participation that allows the clinical assessments completed to be used for research purposes. The first questionnaire is distributed prior to intake and collected at the first session (Time 1). The second questionnaire is distributed at the fourth session and collected prior to the fifth session (Time 2). Upon completion of the procedures described, the included couples were examined using a specific dyadic data analysis model.

Preliminary Analyses

In order to answer the research questions posed, a preliminary set of analyses were conducted to ensure the internal validity of results and the appropriateness of methods used. Specifically, an attrition analysis was conducted to strengthen validity of results by comparing couples that dropped out of therapy prior to the fourth session with those who completed at least four sessions. Additionally, a correlation matrix of the variables examined is included in the results to ensure the model is appropriately identified.

Attrition analysis

To ensure that results are not affected by attrition bias, an attrition analysis (Miller & Wright, 1995) was conducted to compare couples that completed only the pre-session assessment, with those that completed the fourth-session assessment as well. Differences were examined as recommended by Miller & Wright (1995) by comparing the means of demographic variables obtained, as well as comparison of pretreatment (Time 1) variables using a t-test and chi-square analysis. Variables that are significantly different between groups were included in the model to be tested as a means of controlling bias, thereby strengthening the validity of the study.

Primary Analyses

The Actor-Partner Interdependence Model

The Actor-Partner Interdependence Model (Kenny & Cook, 1996; APIM) allows for a relational examination of the individual's influence on the outcome variable, as well as the partner's influence on the outcome variable. Incorporating the partner's influence on an individual's outcome variable highlights the interactional nature of the variables. Kenny & Cook (1996) describe, "…by including partner effects there is a possibility of identifying truly relational phenomena" (p. 435). The APIM examines the influence of the individual's predictor variables on the outcome variables, described as an *actor* effect. The model also establishes the relationship the partner's predictor variables have with the outcome variable or, *partner* effect. In Figure 3 (p. 28), the horizontal lines represent the actor effects and the diagonal lines represent the partner effects. In the APIM, predictor variables are assumed to be correlated, represented by the curved arrow between X_1 and X_2. By allowing the independent variables to be correlated, both actor and partner effects can be independently estimated. By controlling for shared variance

in the outcomes, actor effects can be estimated while controlling for partner effects and vice versa. The extent to which the X variables do not predict the Y variables is considered to be error.

A unique feature of the APIM includes the modeling of non-independence in the data. Many inferential statistical methods assume independence of scores. In other words, error is assumed to be random and predictor scores are unrelated, suggesting participants' outcome scores are unaffected by one another. The violation of this assumption leads to biased results with traditional methods of analysis, such as multiple regression or analysis of variance. However, Kenny and colleagues (2006) explain that those involved in dyadic relationships often can and do influence one another on many levels. Therefore, the APIM models non-independence of the data by allowing correlation of the residual, or error term, as well as the predictor variables. It is likely that there are multiple sources of variance other than the partner and actor effects. As such, these influences are included in the error term (See Figure 3, p. 28) and the errors are correlated even after the covariation of the actor and partner effect is removed. The predictor variable (X) and error (E) correlation is represented by the curved, double-headed arrows. The focus of the proposed study is to examine the interdependence of couples' attachment style, which suggests the APIM is particularly suited as a model for analysis.

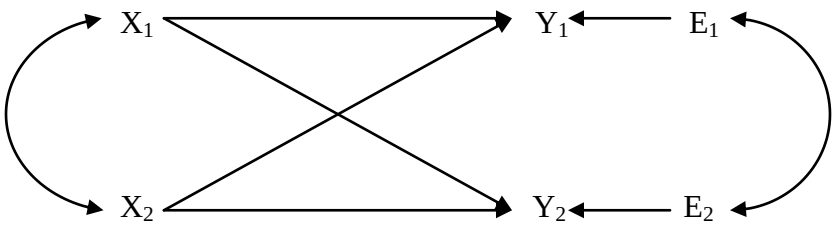


Figure 3: *The Actor-Partner Interdependence Model*

Structural equation modeling

Kenny and colleagues (2006) explain that there are multiple analyses for testing the APIM such as pooled regression, structural equation modeling (SEM), and multi-level modeling. SEM is considered to be a straightforward method for the estimation of actor and partner effects, so it was used in this study using MPLUS software (Muthén & Muthén, 2004). The authors recommend the APIM is for use only with dyads who demonstrate a distinguishable characteristic (Kenny & Cook, 1999), which was sex in the current sample of heterosexual couples. As such, the unit of analysis was couple, as opposed to individual scores. Kenny & Cook (1999) suggest the usual restrictions of sample size imposed on structural equation modeling are not applicable. The authors recommend a more relaxed guideline for sample size when using the APIM in the event that latent variables are not used. However, a ratio of the number of couples to the number of parameters in the designated model is suggested as 10:1 to achieve a power level of at least .80 and detection of a medium effect size ($d \geq .2$) (Kline, 2005).

The paths to be tested were guided by the Actor Partner Interdependence Model (APIM, Kenney & Cook, 1996) using MPLUS (Muthén & Muthén, 2004). Included in the model are three actor effects and two partner effects for both the male and female partner, resulting in eight of the ten total direct paths (See Figure 4, p. 33). Each research question corresponds to a path in the model, which examines the effect of either personal or partner's attachment anxiety and avoidance on symptom distress at Time 2. The model specifies a total of 6 exogenous variables (i.e., men/women's anxiety, men/women's avoidance, men/women's Time 1 symptom distress) and 2 endogenous variables (i.e., men/women's Time 2 symptom distress). While attachment anxiety and avoidance are the primary independent variables in the study, symptom distress at Time 1 was included for both male and female partners to control for level of symptom distress

at Time 1. The model was evaluated based on the significance of actor effects, the significance of partner effects, and overall index of model fit.

Several fit indices were used in this study. Due to a current lack of consensus on a particular model of fit index, it is recommended to report multiple indicators to evaluate overall fit of the model being tested (Hoyle & Panter, 1995). Several indicators of model fit are offered for the baseline and amended models, including Chi-square, the Root Mean Square Error of Approximation (RMSEA), and Comparative Fit Index (CFI). While chi-square is the basis for each of the previously mentioned fit indices, there are several limitations to reporting chi-square alone. Kline (2005) explains that the chi-square index of fit is influenced by strong correlations among model variables, which may lead to inflated values for χ^2. Further, the χ^2 fit index is also affected by sample size, which may lead to increased likelihood of a Type I error among large sample sizes. Due to these limitations, it is necessary to include additional fit indices.

In contrast to chi-square, RMSEA is not affected by sample size as it estimates the fit between the model and covariance among the population, as opposed to the sample. A RMSEA of $\leq .05$ indicates a good model fit and values between .05 and .08 suggest a reasonable approximation of error (Kline, 2005). CFI compares the tested model with a null model, which assumes there are no population covariances. Hu & Bentler (1999) recommend that CFI values greater than .90 indicate a reasonable model fit. Model fit indices were included to compare baseline and amended models following the inclusion of results from the exploratory factor analysis.

Exploratory factor analysis

In order to examine the use of the ECR for couples involved in therapy, a principal component analysis was conducted on the anxiety and avoidance subscales for male and female

partners using a Varimax rotation method. A principal component analysis is one type of exploratory factor analysis (EFA) used to determine underlying components of the measure examined. An EFA determines the consistency of factors to detect any underlying dimensions of the measure, as factor structures may differ across different samples (Floyd & Widaman, 1995). Applied to the present study, the goal of the EFA was to detect any underlying constructs of adult attachment that may be applicable to couples in therapy. To assess the dimensions of adult attachment, anxiety and avoidance, Brennan and colleagues (1998) originally utilized a sample of college undergraduates with a median age of 18 to determine the appropriateness of items to include in the ECR. While the measure has demonstrated high reliability and strong validity among the targeted population, the psychometric properties have yet to be examined specifically among couples involved in therapy.

There are no strict criteria for selecting a particular number of factors. However, factors detected in the present study were retained based on substantial decline in total variance explained by each factor among the subscale (Gorsuch, 1984). Among the factors retained from the EFA results, each item was examined separately based on two criteria. Items that demonstrate a value of $\leq .4$ or items that load on more than one factor of the anxiety or avoidance subscales will not be retained. Any items that do not appropriately load onto the subscale factors of the ECR based on these criteria were removed in subsequent analyses to contribute to a more parsimonious model (Fabrigar et.al., 1999). Separate analyses were conducted for male and female partners to detect any differences in variance explained by the measure for men and women.

Research questions

The research questions below were analyzed by using avoidance and anxiety dimensions to predict the individual's and partner's symptom distress at Time 2. Paths in the model to be tested are numbered according to the research question they will address (Figure 1). Specifically, to answer research questions 1 and 2, male partners' attachment dimensions, avoidance and anxiety taken at Time 1 was used to predict their own symptom distress at Time 2 (*Actor Effect – Male*). Second, questions 3 and 4 will examine the influence of female partners' anxiety and avoidance dimensions taken at Time 1 on symptom distress at Time 2 (*Actor Effect – Female*). Next, questions 5 and 6 will test the presence of a partner effect by testing whether male partners' anxiety and avoidance dimensions at Time 1 significantly predict the female partners' symptom distress at Time 2 (*Partner Effect – Male*). Finally, questions 7 and 8 will determine the influence of the female partners' anxiety and avoidance on the male partners' symptom distress at Time 2 (*Partner Effect – Female*).

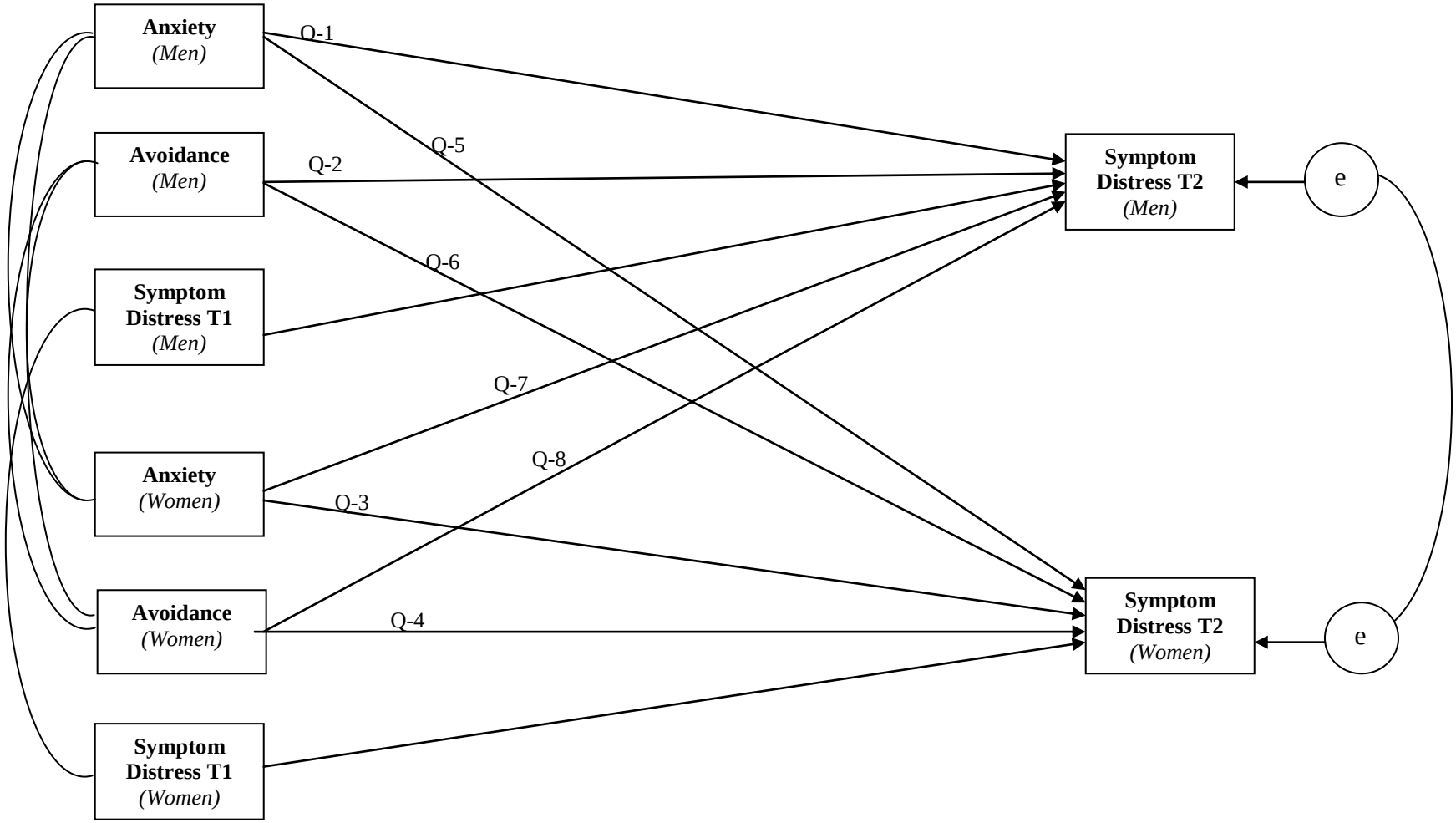
Actor Effects:

1. Does male partners' attachment anxiety at Time 1 predict their own symptom distress at Time 2?
2. Does male partners' attachment avoidance at Time 1 predict their own symptom distress at Time 2?
3. Does female partners' attachment anxiety at Time 1 predict their own symptom distress at Time 2?
4. Does female partners' attachment avoidance at Time 1 predict their own symptom distress at Time 2?

Partner Effects:

5. Does male partners' attachment anxiety at Time 1 predict their female partners' symptom distress at Time 2?
6. Does male partners' attachment avoidance at Time 1 predict their female partners' symptom distress at Time 2?
7. Does female partners' attachment anxiety at Time 1 predict their male partners' symptom distress at Time 2?
8. Does female partners' attachment avoidance at Time 1 predict their male partners' symptom distress at Time 2?

Figure 4: *Model to be Tested*



CHAPTER 4

Results

The research questions derived in the present study are separated into two groups, suggested by the APIM; actor effects and partner effects. Questions 1 through 4 ask whether one's individual or personal attachment domains (i.e., anxiety and avoidance) influence his or her symptom distress at Time 2 (actor effect). Questions 5 through 8 examine the relationship between partner's attachment domains (i.e., anxiety and avoidance) and the individual's symptom distress at Time 2 (partner effect). In the following section, the results of the baseline model are presented, which are separated into the analyses for actor effects and partner effects. Next, the results of the exploratory factor analysis (EFA) of the Experiences in Close Relationships (Brennan et al., 1998) measure is outlined to explain the dimensions of attachment found among this clinical population. Revised dimensions of anxiety and avoidance subscales for men and women were included in the analysis of the final model. In conclusion, results for the final model are presented.

Results of Preliminary Analyses

Preliminary analyses were conducted to obtain the following information; first, attrition analyses were conducted to compare demographic variable of couples that discontinued therapy with those couples that completed the fourth session of therapy. Pretreatment (Time 1) variables were also compared between couples that completed at least four sessions of couple therapy with those that discontinued therapy prior to the fourth session. Next, reliability results are presented separately for males and females using Cronbach's α to estimate internal consistency of each

measure. Finally, correlations between variables entered into the model are presented.

Variables associated with discontinuing therapy

Among the 569 couples who completed questionnaires at Time 1, 297 couples (52.2%) were included in analyses at Time 2. In order to compare those couples who dropped out of therapy with those that continued, attrition analyses were conducted. Specifically, a Chi-Square analysis was run to compare demographic variables among continued and discontinued couples, which are included in Table 1. As well, Time 1 variables (i.e., anxiety, avoidance, and symptoms distress) were also compared among continued and discontinued couples using a *t*-test comparison. Results from the *t*-test comparison are presented in Table 2.

Demographic. – A chi-square test was conducted to assess whether clients' race, education level, yearly income, or relationship status contributed to discontinuing therapy prior to the fourth session. Clinics providing therapy were also compared as a variable influencing therapy drop out. For easier interpretation of results, each variable was dummy coded into two categories. Results indicate that couples in which the male partner had no college degree were more likely to discontinue therapy prior to session 4. To account for potential biases of results related to male education level, "college" was included in the model. However, the variable did not affect the overall fit of the model, so it was removed to ensure parsimony of the model. The results of the chi-square analyses are presented in Table 1 (p. 36).

Table 1
X^2 Analysis Comparing Demographic Variables

Variable	% Continued	% Discontinued	χ^2	*p* value	Cramér's *V*
M[a] Caucasian/Minority	39.7/47.1	60.3/52.9	1.61	.21	.06
F[b] Caucasian/Minority	37.2/35.5	62.8/64.5	.09	.77	.01
M College/No college	45.9/33.2	54.1/66.9	7.36*	.01	.13
F College/No college	38.9/32.1	61.1/67.8	2.19	.14	.07
M Under $20k/Over $20k	39.9/43.1	60.1/56.9	.43	.51	.03
F Under $20k/Over $20k	35.8/37.5	64.2/62.5	.14	.71	.71
UGA/Auburn	32.4/37.0	67.6/63.0	.98	.32	.04

Note: *$p < .01$

[a]M = Male Partner
[b]F = Female Partner

Pre-treatment (Time 1) variables. A *t*-test was conducted to evaluate differences in pre-treatment variables between couples who completed at least four sessions of therapy and those who discontinued therapy prior to the fourth session. Results of the *t*-test are presented in Table 2. The test was significant for the variable Male Symptom Distress, t (404) = -.80, p = .01, where men who discontinued therapy prior to the fourth session had higher symptom distress at Time 1 than those who continued. There were no other significant differences in pretreatment variables between those who continued and those who discontinued therapy prior to session 4. In order to control for symptom distress differences at Time 1, symptom distress at Time 1 was incorporated as a baseline for symptom distress at Time 2 in the model to be tested.

Table 2
T-test Comparison of Pretreatment Variables

Variable	*M*		*SD*		*t* (df)
	Drop	Cont.	Drop	Cont.	
[a]M Anxiety	3.75	3.62	1.28	1.26	-1.05 (444)
M Avoidance	2.70	2.65	.98	.99	-.51 (455)
M Symptom Distress	32.97	31.82	15.36	12.59	-.80 (404)*
[b]F Anxiety	3.96	4.15	1.23	1.10	1.72 (481)
F Avoidance	2.88	2.89	1.19	1.10	.08 (496)
F Symptom Distress	38.73	38.45	16.41	15.99	.18 (445)

Note: *$p < .01$

[a]M = Male Partner
[b]F = Female Partner

Reliability of measures

Reliability estimates for the both male and female responses on the anxiety and avoidance subscales of the Experiences in Close Relationships (Brennan et al., 1998; ECR) and the symptom distress subscale of the Outcome Questionnaire (Lambert et al., 1996) for Time 1 and Time 2 were established using Cronbach's α. Results ranged from .90 to .94, indicating excellent internal consistency. All reliability estimates are presented in Table 3.

Table 3
Reliability of Measures

Measure	# of Items	Male α	Female α
[a]ECR – Anxiety	16	.91	.90
ECR – Avoidance	16	.90	.90
[b]OQ – Symptom Distress (Time 1)	25	.92	.93
OQ – Symptom Distress (Time 2)	25	.93	.94

[a]ECR = Experience in Close Relationships
[b]OQ= Outcome Questionnaire

Correlation of variables

The correlation matrix for the model variables is presented in Table 4. The significant correlation among the model variables, attachment anxiety and avoidance with the personal and partners' symptom distress at Time 2, supports the presence of both an actor and partner effect.

Consistent with the attachment literature, personal attachment anxiety and avoidance subscales were not significantly correlated for men. For women, however, avoidance and anxiety subscales were significantly correlated at the .05 level (r = .18). Subscales of avoidance and anxiety are considered unique constructs and should therefore be uncorrelated. A possible explanation for the significant correlation of anxiety and avoidance among women may be a greater number of women were characterized as a "fearful-avoidant" style. This style is determined by high anxiety and high avoidance, which may result in a correlation between the two attachment dimensions. However, further analyses are needed to confirm this explanation. On the other hand, attachment subscales did demonstrate a significant correlation to the corresponding attachment subscales of their partners (e.g. men/women's anxiety), confirming the data are non-independent.

Table 4
Intercorrelations of Model Variables

Variable	1	2	3	4	5	6
1. [a]M Anxiety	--	.13	.44**	.13	.45**	.20*
2. M Avoidance		--	.29**	.37**	.24**	.27**
3. M Symptom Distress			--	.24**	.32**	.28**
4. [b]F Anxiety				--	.18*	.32**
5. F Avoidance					--	.50**
6. F Symptom Distress						--

Note. *p < .05 **p < . 01
[a]M = Male Partner
[b]F = Female Partner

Baseline Model

The baseline model includes data from 297 couples (males = 297; females = 297). The chi-square test of model fit for the baseline model was significant, 56.21 (df = 2, p = .01). A significant chi-square value suggests the rejection of the hypothesis that the model is correct, or poor model fit. The RMSEA for the baseline model was .30 (90% CI = .24-.37, p = .00), which exceeds the recommended value for reasonable model fit. Finally, the value for the CFI was .55,

further supporting poor model fit of the baseline model. Due to the overall lack of fit for the baseline model, measures were taken to remove any unexplained variance in the model contributed by the ECR to improve model fit. Although the fit indices indicated poor fit, the individual paths are discussed below to compare with the final model, which includes the results of the EFA. The research questions are presented separately based on actor effects (Questions 1 – 4) and partner effects (Questions 5 – 8).

Actor effects of baseline model

Results for actor effects of male and female partners are presented in Figure 5 (p. 41). Bold lines indicate paths that are significant at the $p \leq .05$ level in the baseline model. A path was included from each partners' symptom distress at Time 1 to his or her own symptom distress at Time 2 to account for the variance among participants at Time 1. Male participants demonstrated a significant positive relationship between Time 1 and Time 2 symptom distress. On the other hand, the relationship between Time 1 and Time 2 symptom distress for females was not significant.

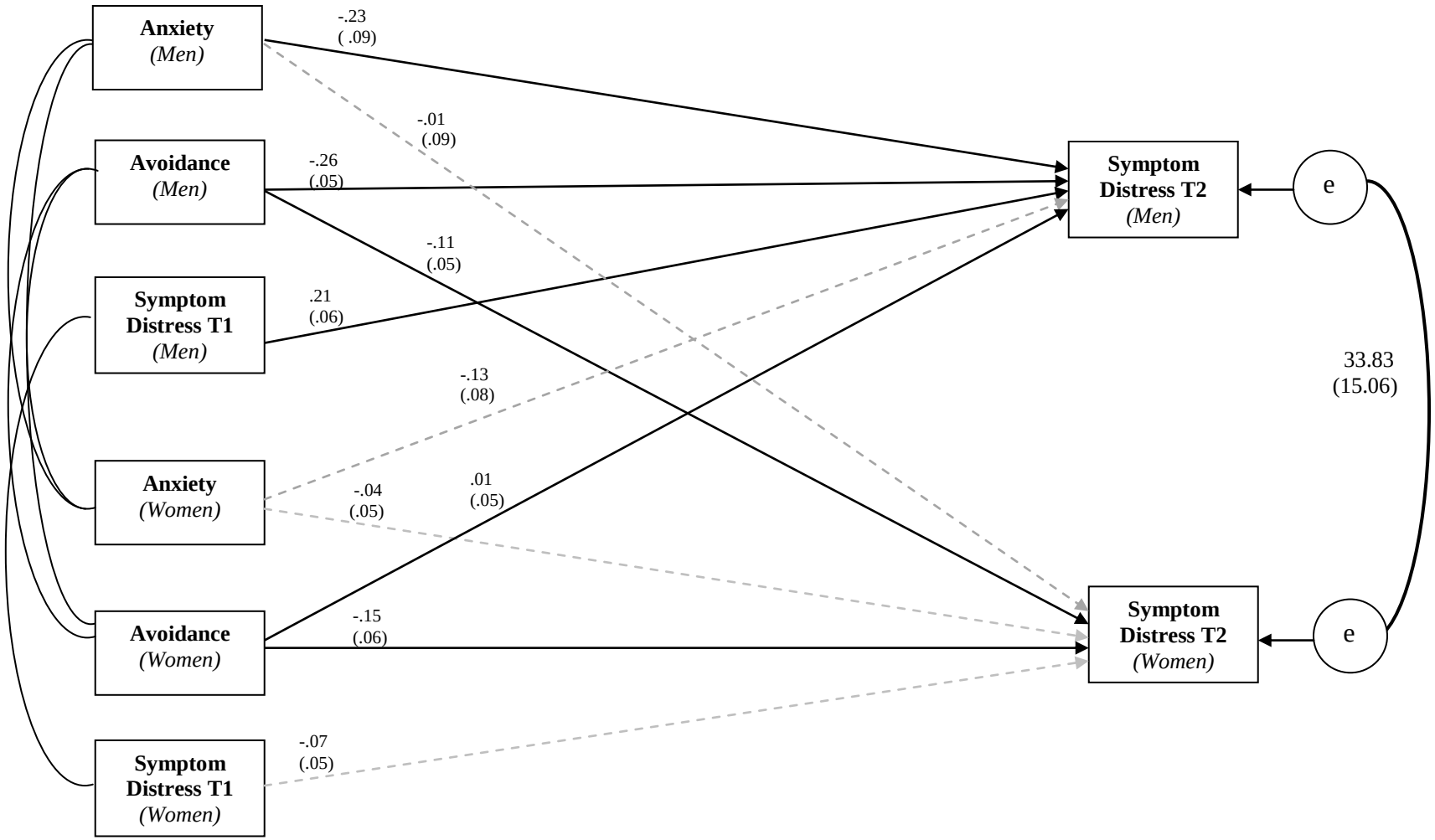
Actor effects for both male and female partners examined the relationship between personal anxiety and avoidance with Time 2 symptom distress. The influence of personal anxiety for male participants had a significant negative effect on symptom distress at Time 2 in the baseline model, which suggests men who exhibit high attachment anxiety related behaviors at Time 1 displayed low symptom distress at Time 2. On the other hand, the relationship between anxiety and symptom distress among female participants was non-significant in the baseline model. The path from personal avoidance at Time 1 to symptom distress at Time 2 for both males and females demonstrated a significant inverse relationship. Such a relationship suggests those who report high avoidance at Time 1 had low symptom distress at Time 2.

Partner effects of baseline model

Results for partner effects of male and female partners are also presented in Figure 5 (p. 41) Partner effects for both male and female partners examined the relationship between personal anxiety and avoidance with his or her partner's Time 2 symptom distress. The influence of partner's anxiety on symptom distress for both male and female participants was non-significant in the baseline model, indicating the presence of partner's anxiety had no effect on Time 2 symptom distress in the baseline model. On the other hand, both males and females demonstrated a significant partner effect for attachment avoidance on Time 2 symptom distress. However, females exhibited a positive relationship, suggesting that high avoidance of female partners resulted in increased symptom distress of their male partners. An inverse relationship was found for the partner effect among males, which indicates high female partner's avoidance led to an increase in symptom distress of the male partner at Time 2.

Due to the lack of poor model fit for the baseline model, I posited the lack of fit may be due to the measurement of adult attachment among a clinical sample. In an effort to eliminate unexplained variance within the baseline model, an EFA was conducted on the ECR anxiety and avoidance subscales for both male and female partners. The underlying dimension found in the EFA of the ECR anxiety and avoidance subscales were incorporated into the amended final model.

Figure 5: *Baseline Model*



Exploratory Factor Analysis

In order to examine the use of the ECR for couples involved in therapy, an exploratory factor analysis (EFA) was conducted on the anxiety and avoidance subscales for male and female partners. The purpose of incorporating an EFA into the baseline model was to identify any underlying components of the measure that apply specifically to couples in therapy. Additionally, unexplained variance associated with particular items may be removed from the model, resulting in a more parsimonious model. The EFA was performed using Varimax rotation. The following section presents the results from the preliminary analyses conducted for the EFA, including descriptive statistics and intercorrelation of items of the ECR measure. Primary EFA analyses are then presented, including separate factor loadings for anxiety and avoidance subscales for male and female partners.

Preliminary EFA analyses

Descriptive statistics, including mean and standard deviation (SD) of the sample scores, skewness, and kurtosis for each item of anxiety and avoidance subscales are presented in Tables 5 through 8 below. Skewness values are considered acceptable below an absolute value of two, while kurtosis values are considered acceptable if they do not exceed an absolute value of seven (Gorsuch, 1983). The distribution of the items on the ECR indicates that the majority of the items for both anxiety and avoidance subscales were within acceptable parameters for skewness and kurtosis noted above. However, skewness and kurtosis for item 10 among male participants exceeded the acceptable values. Item 10 was removed from the amended model.

Table 5
ECR Descriptives – Men's Anxiety Subscale

Item	Mean (SD)	Skewness (error)	Kurtosis (error)
2. I worry about being abandoned	3.45(2.01)	.26(.20)	-1.23(.40)
4. I worry a lot about my relationship	4.48(1.91)	-.27(.20)	-1.06(.40)
6. I worry that adult partners won't care as much about me as I care about them	3.33(1.64)	.31(.20)	-1.07(.40)
8. I worry a fair amount about losing my partner	3.77(2.07)	.06(.20)	-1.39(.40)
10. I often wish that my partner's feelings for me were as strong as my feelings for him/her	4.17(4.21)	**7.47(.20)**	**75.82(.40)**
12. I often want to merge completely with adult partners, and this sometimes this scares them away	2.72(1.70)	.73(.20)	-.39(.40)
14. I worry about being alone	3.32(2.01)	.32(.20)	-1.25(.40)
16. My desire to be very close sometimes scares people away.	2.50(1.41)	.83(.20)	.21(.40)
18. I need a lot of reassurance that I am loved by my partner	4.19(1.95)	-.27(.20)	-1.11(.40)
20. Sometimes I feel that I force my partner to show more feeling, more commitment	3.27(1.80)	.44(.20)	-.84(.40)
22. I do not often worry about being abandoned	3.41(2.02)	.35(.20)	-1.17(.40)
24. If I can't get my partner to show an interest in me, I get upset or angry.	3.57(1.89)	.04(.20)	-1.21(.40)
26. I find that my partner(s) don't want to get as close as I would like.	3.16(1.88)	.50(.20)	-.96(.40)
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure	3.01(1.92)	.63(.20)	-.77(.40)
30. I get frustrated when my partner is not around as much as I would like.	3.67(1.95)	.16(.20)	-1.18(.40)
32. I get frustrated if adult partners are not available when I need them.	3.79(1.87)	-.04(.20)	-1.09(.40)
34. When adult partners disapprove of me, I feel really bad about myself.	4.46(1.82)	-.37(.20)	-.77(.40)
36. I resent it when my partner spends time away from me.	3.01(1.82)	.59(.20)	-.71(.40)

Table 6
ECR Descriptives –Men's Avoidance Subscale

Item	Mean (SD)	Skewness (error)	Kurtosis (error)
1. I prefer not to show a partner how I feel deep down	3.08(1.71)	.48(.20)	-.74(.40)
3. I am very comfortable being close to adult partners	2.45(1.43)	.82(.20)	-.06(.40)
5. Just when my partner starts to get close to me, I find myself pulling away	2.55(1.56)	.95(.20)	.17(.40)
7. I get uncomfortable when an adult partner wants to be very close	2.29(1.49)	1.40(.20)	1.55(.40)
9. I don't feel comfortable opening up to adult partners	2.76(1.67)	.73(.20)	-.31(.40)
11. I want to get close to my partner, but I keep pulling back.	2.52(1.59)	.75(.20)	-.57(.40)
13. I am nervous when partners get too close to me	2.18(1.44)	1.48(.20)	1.93(.40)
15. I feel comfortable sharing my private thoughts and feelings with my partner	2.97(1.72)	.73(.20)	-.48(.40)
17. I try to avoid getting too close to my partner	2.15(1.44)	1.43(.20)	1.63(.40)
19. I find it relatively easy to get close to my partner	3.05(1.60)	.60(.20)	-.27(.40)
21. I find it difficult to allow myself to depend on adult partners	3.10(1.71)	.40(.20)	-.83(.40)
23. I prefer not to be too close to adult partners	2.10(1.30)	1.35(.20)	1.51(.40)
25. I tell my partner just about everything	2.71(1.70)	1.02(.20)	.08(.40)
27. I usually discuss my problems and concerns with my partner	2.93(1.76)	.74(.20)	-.33(.40)
29. I feel comfortable depending on adult partners	3.20(1.73)	.56(.20)	-.48(.40)
31. I don't mind asking adult partners for comfort, advice, or help	2.62(1.68)	1.11(.20)	.46(.40)
33. It helps to turn to my adult partner in times of need	2.31(1.46)	1.23(.20)	1.03(.40)
35. I turn to my partner for many things, including comfort and reassurance	2.39(1.34)	.97(.20)	.48(.40)

Table 7
ECR Descriptives –Women's Subscale

Item	Mean (SD)	Skewness (error)	Kurtosis (error)
2. I worry about being abandoned	4.35(2.00)	-.17(.20)	-1.21(.40)
4. I worry a lot about my relationship	5.13(1.81)	-.74(.20)	-.58(.40)
6. I worry that adult partners won't care as much about me as I care about them	4.06(2.11)	-.09(.20)	-1.40(.40)
8. I worry a fair amount about losing my partner	4.11(1.99)	-.08(.20)	-1.21(.40)
10. I often wish that my partner's feelings for me were as strong as my feelings. for him/her	4.12(2.08)	-.10(.20)	-.121(.40)
12. I often want to merge completely with adult partners, and this sometimes this scares them away	2.85(1.89)	.74(.20)	-.69(.40)
14. I worry about being alone	4.22(2.03)	-.31(.20)	-1.24(.40)
16. My desire to be very close sometimes scares people away	2.87(1.82)	.70(.20)	-.69(.40)
18. I need a lot of reassurance that I am loved by my partner.	5.10(1.80)	-.77(.20)	-.38(.40)
20. Sometimes I feel that I force my partner to show more feeling, more commitment	4.39(1.97)	-.31(.20)	-1.04(.40)
22. I do not often worry about being abandoned.	4.20(2.07)	-.17(.20)	-1.32(.40)
24. If I can't get my partner to show an interest in me, I get upset or angry	4.38(1.89)	-.44(.20)	-.99(.40)
26. I find that my partner(s) don't want to get as close as I would like.	3.42(1.88)	.27(.20)	-.99(.40)
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.	3.56(2.02)	.28(.20)	-1.20(.40)
30. I get frustrated when my partner is not around as much as I would like.	4.49(1.79)	-.43(.20)	-.83(.40)
32. I get frustrated if adult partners are not available when I need them.	5.02(1.56)	-.53(.20)	-.43(.40)
34. When adult partners disapprove of me, I feel really bad about myself.	4.78(1.79)	-.44(.20)	-.75(.40)
36. I resent it when my partner spends time away from me.	3.79(1.75)	.28(.20)	-.83(.40)

Table 8
ECR Descriptives – Women's Avoidance Subscale

Item	Mean (SD)	Skewness (error)	Kurtosis (error)
1. I prefer not to show a partner how I feel deep down	2.59(1.70)	.93(.20)	-.19(.40)
3. I am very comfortable being close to adult partners	2.61(1.57)	.95(.20)	.19(.40)
5. Just when my partner starts to get close to me, I find myself pulling away	2.90(1.90)	.75(.20)	-.62(.40)
7. I get uncomfortable when an adult partner wants to be very close	2.73(1.81)	.92(.20)	-.20(.40)
9. I don't feel comfortable opening up to adult partners	2.66(1.76)	1.05(.20)	.15(.40)
11. I want to get close to my partner, but I keep pulling back	3.02(1.95)	.69(.20)	-.74(.40)
13. I am nervous when partners get too close to me	2.64(1.69)	.88(.20)	-.12(.40)
15. I feel comfortable sharing my private thoughts and feelings with my partner	2.60(1.72)	1.05(.20)	.07(.40)
17. I try to avoid getting too close to my partner	2.44(1.45)	.79(.20)	-.42(.40)
19. I find it relatively easy to get close to my partner.	3.30(1.73)	.40(.20)	-.69(.40)
21. I find it difficult to allow myself to depend on adult partners.	3.76(1.92)	.11(.20)	-1.17(.40)
23. I prefer not to be too close to adult partners	2.35(1.59)	1.33(.20)	1.09(.40)
25. I tell my partner just about everything	2.61(1.80)	1.15(.20)	.16(.40)
27. I usually discuss my problems and concerns with my partner	2.63(1.75)	1.04(.20)	.02(.40)
29. I feel comfortable depending on adult partners	3.59(1.78)	.27(.20)	-.79(.40)
31. I don't mind asking adult partners for comfort, advice, or help	2.80(1.69)	.81(.20)	-.17(.40)
33. It helps to turn to my adult partner in times of need	2.80(1.81)	.92(.20)	-.19(.40)
35. I turn to my partner for many things, including comfort and reassurance	2.47(1.61)	1.01(.20)	.19(.40)

An exploratory factor analysis is based on linear regression of the items. Therefore, a correlation matrix of the anxiety and avoidance subscales items for men and women is provided in Tables 9 through 12 below. Items in the matrix that are conceptually related exhibit higher levels of correlation, whereas particular items among were not significantly correlated to the remaining items in the subscale. Repeated non-significance among particular items in the measure suggests a lack of consistency in the responses given by participants. This may be due to an underlying component or association of the subscale that is present for clinical couples. Therefore, an EFA is needed to determine whether the item supports the measure of the intended construct.

Table 9

ECR Item Correlation Matrix – Men's Anxiety Subscale

Item	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
2. worry about being abandoned	--	.32	.44	.54	.13	.42	.76	.35	.34	.51	.68	.34	.38	.58	.42	.32	.31^{ns}	.42
4. worry a lot about my relationship		--	.39	.57	.24	.21*	.31	.07^{ns}	.27	.29	.46	.20*	.14^{ns}	.12^{ns}	.21*	.19*	.09^{ns}	.21*
6. worry partners won't care about me			--	.50^{ns}	.42	.41	.52	.23	.47	.50	.49	.34	.41	.25	.37	.34	.20*	.36
8. worry about losing my partner				--	.17*	.37	.54	.23	.43*	.44	.59	.36	.47	.33	.46	.44	.25	.47
10. wish partner's feelings stronger					--	.12^{ns}	.14^{ns}	.10^{ns}	.33	.41	.09^{ns}	.33	.21*	.09^{ns}	.35	.26	.17*	.26*
12. want to merge with partners						--	.45	.59	.34	.40	.42	.12^{ns}	.41	.25	.28	.19*	.08^{ns}	.23
14. worry about being alone							--	.35	.41	.48	.63	.37	.45	.59	.43	.35	.34	.44
16. desire scares people away								--	.25	.27	.32	.19*	.32	.24	.29	.28	.12^{ns}	.28
18. need reassurance I am loved									--	.49	.40	.45	.43	.32	.46	.41	.26	.40
20. force partner to show feeling										--	.47	.50	.47	.33	.43	.40	.34	.33
22. do not worry about abandoned											--	.27	.35	.45	.37	.32	.23	.34
24. can't get interest, get upset												--	.37	.33	.46	.57	.45	.42
26. partner(s) don't want to get close													--	.29	.39	.37	.15^{ns}	.38
28. not in relationship, feel anxious														--	.41	.32	.28	.34
30. frustrated when partner not around															--	.58	.38	.64
32. frustrated if partner not available																--	.37	.53
34. feel bad about myself																	--	.38
36. resent partner spends time away																		--

*Note. All significance at p < . 01 level unless indicated by *p* < .05 or ns = not significant*

Table 10

ECR Item Correlation Matrix – Women's Anxiety Subscale

Item	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
2. worry about being abandoned	--	.27	.53	.53	.39	.31	.52	.31	.28	.32	.27	.22	.21*	.23	.14ns	.19*	.27	.26
4. worry a lot about my relationship		--	.38	.54	.43	.38	.23	.18*	.25	.30	.04ns	.25	.33	.25	.17ns	.16ns	.19*	.20*
6. worry partners won't care about me			--	.50	.55	.42	.41	.40	.26ns	.37	.27	.30	.41	.20*	.13ns	.29	.27	.32
8. worry about losing my partner				--	.52	.37	.43	.38	.29	.35	.25	.39	.40	.31	.32	.38	.22	.32
10. wish partner's feelings stronger					--	.31	.28	.29	.42	.54	.19*	.43	.66	.25	.32	.23	.24	.43
12. want to merge with partners						--	.34	.56	.32	.25	.16ns	.28	.43	.32	.17*	.22	.25	.28
14. worry about being alone							--	.31	.30	.22	.31	.18*	.25	.35	.20*	.26	.24	.24
16. desire scares people away								--	.16ns	.30	.16ns	.41	.28	.15ns	.16ns	.33	.14ns	.24
18. need reassurance I am loved									--	.61	.15ns	.44	.37	.19*	.34	.45	.31	.37
20. force partner to show feeling										--	.12ns	.47	.52	.17*	.33	.33	.30	.31
22. do not worry about abandoned											--	.32	.22	.30	.20*	.32	.22	.13ns
24. can't get interest, get upset												--	.46	.12ns	.44	.45	.22	.35
26. partner(s) don't want to get close													--	.30	.27	.27	.27	.31
28. not in relationship, feel anxious														--	.23	.14ns	.47	.16ns
30. frustrated when partner not around															--	.46	.19*	.48
32. frustrated if partner not available																--	.39	.41
34. feel bad about myself																	--	.33
36. resent partner spends time away																		--

*Note. All significance at p < . 01 level unless indicated by *p* < .05 or ns = not significant*

Table 11

ECR Item Correlation Matrix –Men's Avoidance Subscale

Item	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35
1. prefer not to show how I feel	--	.47	.42	.38	.50	.44	.41	.52	.41	.24	.37	.40	.50	.57	.23	.48	.30	.34
3. comfortable close to partners		--	.37	.56	.49	.49	.50	.47	.60	.50	.45	.55	.35	.36	.43	.46	.46	.41
5. I find myself pulling away			--	.36	.30	.70	.34	.33	.43	.38	.25	.40	.43	.44	.21*	.44	.20*	.36
7. uncomfortable, wants to be very close				--	.39	.38	.62	.31	.53	.29	.22	.50	.39	.37	.23	.36	.30	.38
9. opening up to adult partners					--	.36	.59	.47	.51	.30	.22	.59	.40	.45	.14ns	.37	.33	.33
11. I keep pulling back						--	.39	.24	.50	.37	.37	.47	.32	.33	.20*	.31	.22	.34
13. nervous when partners get too close							--	.38	.56	.25	.20*	.57	.45	.46	.19*	.38	.26	.42
15. comfortable sharing thoughts								--	.52	.31	.18*	.34	.63	.58	.25	.54	.41	.41
17. avoid getting too close to my partner									--	.47	.24*	.64	.53	.51	.15ns	.40	.37	.41
19. easy to get close to my partner										--	.27*	.41	.30	.25	.17*	.31	.35	.44
21. difficult to depend on adult partners											--	.17*	.31	.23	.40	.31	.28	.24
23. prefer not to be too close												--	.31	.38	.15ns	.28	.32	.36
25. tell my partner just about everything													--	.64	.30	.63	.44	.55
27. usually discuss my problems														--	.26	.59	.25	.50
29 comfortable depending on partners															--	.41	.32	.39
31. don't mind asking partners for comfort																--	.46	.63
33. turn to my partner in times of need																	--	.54
35. turn to my partner for many comfort																		--

*Note. All significance at p < . 01 level unless indicated by *p < .05 or ns = not significant*

Table 12

ECR Item Correlation Matrix – Women's Avoidance Subscale

Item	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35
1. prefer not to show how I feel	--	.35	.43	.33	.43	.40	.39	.36	.39	.17*	.14ns	.47	.30	.35	.11ns	.27	.17ns	.32
3. comfortable close to partners		--	.36	.44	.37	.23	.41	.36	.41	.35	.18*	.42	.40	.37	.28	.41	.24	.40
5. I find myself pulling away			--	.52	.55	.72	.66	.24	.48	.24	.15	.54	.33	.30	.29	.23	.05ns	.22
7. uncomfortable, wants to be very close				--	.42	.47	.64	.25	.43	.30	.24	.48	.28	.22*	.11ns	.22	.11ns	.27
9. opening up to adult partners					--	.54	.56	.42	.51	.27	.28	.58	.49	.34	.20*	.39	.19*	.32
11. I keep pulling back						--	.57	.31	.51	.31	.16ns	.44	.39	.39	.22	.27	.17*	.23
13. nervous when partners get too close							--	.23	.58	.13ns	.32	.52	.36	.23	.24	.22	.15ns	.26
15. comfortable sharing thoughts								--	.46	.44	.27	.35	.63	.55	.34	.51	.33	.55
17. avoid getting too close to my partner									--	.40	.30	.66	.50	.50	.34	.47	.29	.42
19. easy to get close to my partner										--	.28	.35	.44	.43	.37	.35	.18*	.41
21. difficult to depend on adult partners											--	.31	.26	.30	.35	.31	.12ns	.34
23. prefer not to be too close												--	.46	.42	.26	.40	.18*	.49
25. tell my partner just about everything													--	.71	.34	.61	.31	.60
27. usually discuss my problems														--	.41	.61	.35	.68
29 comfortable depending on partners															--	.44	.19*	.43
31. don't mind asking partners for comfort																--	.42	.66
33. turn to my partner in times of need																	--	.37
35. turn to my partner for many comfort																		--

*Note. All significance at p < . 01 level unless indicated by *p* < .05 or ns = not significant*

Primary EFA analyses

Results from the EFA conducted on the anxiety and avoidance subscales for male and female partners are presented in Tables 13 through 16 below. The number of factors considered in the EFA for each subscale was established by a significant decrease in the measure's total variance explained by the number of factors, described by Gorsuch (1983) as an elbow in the scree plot. The percent of variance explained is provided for each subscale. Particular items that demonstrated multiple loadings or a factor loading of < .40 were eliminated from the variable to be included in the amended model. By removing items that do not account for a significant amount of the variance among couples in therapy, findings will contribute to a more parsimonious model.

A separate EFA for males was conducted on the anxiety subscale. Analyses for the anxiety subscale of male participants yielded the results in Table 13 below. When the number of factors was limited to three, 56.7% of the variance was explained by the factors. There were no items eliminated due to insufficient factor loading (i.e., <.40), which supports Brennan and colleagues' (1998) findings of strong reliability and validity of the original measure. However, items 10, 12, 16, and 26 loaded on multiple factors, suggesting the items may address more than one underlying dimensions. Multiple loadings of the items indicate inconsistent interpretations by male partners undergoing couple therapy. Items 10, 12, 16, and 26 were removed from the variable drawn from Factor 1, revised men's anxiety, in the final model.

Table 13
ECR Factor loadings –Men's Anxiety Subscale

Item	Factor 1	Factor 2	Factor 3
2. I worry about being abandoned	**.736**	.207	-.359
4. I worry a lot about my relationship	**.618**	.063	-.038
6. I worry that adult partners won't care as much about me as I care about them.	**.721**	.188	.129
8. I worry a fair amount about losing my partner	**.768**	.108	-.111
10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.	**.520**	-.013	**.499**
12. I often want to merge completely with adult partners, and this sometimes this scares them away.	**.470**	**.609**	.218
14. I worry about being alone.	**.760**	.178	-.354
16. My desire to be very close sometimes scares people away.	**.498**	**.465**	.147
18. I need a lot of reassurance that I am loved by my partner.	**.719**	-.057	.196
20. Sometimes I feel that I force my partner to show more feeling, more commitment.	**.707**	-.051	.229
22. I do not often worry about being abandoned.	**.590**	.190	-.501
24. If I can't get my partner to show an interest in me, I get upset or angry.	**.675**	-.300	.183
26. I find that my partner(s) don't want to get as close as I would like.	**.594**	.142	**.402**
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.	**.539**	-.028	-.355
30. I get frustrated when my partner is not around as much as I would like.	**.674**	-.421	.078
32. I get frustrated if adult partners are not available when I need them.	**.666**	-.460	.033
34. When adult partners disapprove of me, I feel really bad about myself.	**.509**	-.356	-.203
36. I resent it when my partner spends time away from me.	**.684**	-.274	-.051

The EFA of the anxiety subscale was examined separately for females. Analyses for the female participants yielded the results in Table 14 below. When the number of factors was limited to three, 53.6% of the variance was explained by the factors. No items were eliminated due to insufficient factor loading (i.e., < .40). Items 2, 14, 30, 32, and 36 loaded on multiple factors, which indicated that female partners in this clinical sample were unclear how to interpret

the questions. Item 22 loaded sufficiently onto Factor 3 suggesting a separate construct among the subscale. However, there were no other items that loaded sufficiently onto the factor. Items 2, 14, 22, 30, 32, and 36 were removed from the variable drawn from Factor 1, revised women's anxiety, in the final model.

Table 14
ECR Factor Loadings – Women's Anxiety Subscale

Item	Factor 1	Factor 2	Factor 3
2. I worry about being abandoned	**.628**	-.169	**.405**
4. I worry a lot about my relationship	**.540**	-.024	-.180
6. I worry that adult partners won't care as much about me as I care about them.	**.690**	-.261	.024
8. I worry a fair amount about losing my partner	**.701**	-.184	.258
10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.	**.696**	-.255	-.215
12. I often want to merge completely with adult partners, and this sometimes this scares them away.	**.607**	-.388	-.182
14. I worry about being alone.	**.661**	-.045	**.488**
16. My desire to be very close sometimes scares people away.	**.532**	-.417	-.216
18. I need a lot of reassurance that I am loved by my partner.	**.695**	.091	-.087
20. Sometimes I feel that I force my partner to show more feeling, more commitment.	**.679**	-.048	-.310
22. I do not often worry about being abandoned.	.356	.006	**.433**
24. If I can't get my partner to show an interest in me, I get upset or angry.	**.661**	.236	-.305
26. I find that my partner(s) don't want to get as close as I would like.	**.681**	-.204	-.383
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.	**.539**	.113	.399
30. I get frustrated when my partner is not around as much as I would like.	**.606**	**.528**	-.093
32. I get frustrated if adult partners are not available when I need them.	**.536**	**.505**	-.107
34. When adult partners disapprove of me, I feel really bad about myself.	**.575**	.224	.143
36. I resent it when my partner spends time away from me.	**.633**	**.416**	-.140

The EFA of the avoidance subscale was also examined separately for males and females. Results for the male participants are presented in Table 15 below. When the number of factors was limited to three, 53.8% of the variance was explained by the factors. Item 19 was eliminated due to insufficient factor loading (i.e., <.40), indicating there was little consistency of responses among the male partners in this clinical sample. Items 21, 29, 31, 33 and 35 loaded on multiple factors, suggesting the questions address more than one construct for couples participating in therapy. Items 19, 21, 29, 31, 33 and 35 were removed from the variable drawn from Factor 1, revised men's avoidance, in the final model.

Table 15
ECR Factor Loadings–Men's Avoidance Subscale

Item	Factor 1	Factor 2	Factor 3
1. I prefer not to show a partner how I feel deep down.	**.639**	-.137	-.369
3. I am very comfortable being close to adult partners.	**.587**	-.035	.378
5. Just when my partner starts to get close to me, I find myself pulling away.	**.649**	-.352	-.072
7. I get uncomfortable when an adult partner wants to be very close.	**.659**	-.369	-.016
9. I don't feel comfortable opening up to adult partners.	**.709**	-.255	-.156
11. I want to get close to my partner, but I keep pulling back.	**.670**	-.395	-.013
13. I am nervous when partners get too close to me.	**.681**	-.333	-.038
15. I feel comfortable sharing my private thoughts and feelings with my partner.	**.594**	.310	-.254
17. I try to avoid getting too close to my partner.	**.716**	-.253	-.066
19. I find it relatively easy to get close to my partner.	.378	.230	.189
21. I find it difficult to allow myself to depend on adult partners.	**.458**	-.108	**.447**
23. I prefer not to be too close to adult partners.	**.650**	-.214	-.226
25. I tell my partner just about every-thing.	**.639**	.294	-.329
27. I usually discuss my problems and concerns with my partner.	**.667**	.345	-.326
29. I feel comfortable depending on adult partners.	**.498**	.188	**.488**
31. I don't mind asking adult partners for comfort, advice, or help.	**.652**	**.417**	-.028
33. It helps to turn to my adult partner in times of need.	**.506**	**.532**	.238
35. I turn to my partner for many things, including comfort and reassurance.	**.546**	**.505**	.018

Results for the avoidance subscale among female participants are presented in Table 16 below. The number of factors was limited to three, based on 56.7% explained variance of the factors indicated in the scree plot. Item 33 was eliminated due to insufficient factor loading (i.e., <.40), indicating there was little consistency of responses among the female partners in this clinical sample. Items 21, 25, 27 29, 31, and 35 loaded on multiple factors, suggesting the

questions address more than one construct for couples participating in therapy. Items 21, 25, 27 29, 31, 33, and 35 were removed from the variable drawn from Factor 1, revised women's avoidance, in the final model.

Table 16
ECR Factor Loadings – Women's Avoidance Subscale

Item	Factor 1	Factor 2	Factor 3
1. I prefer not to show a partner how I feel deep down.	**.627**	-.101	-.263
3. I am very comfortable being close to adult partners.	**.614**	-.079	-.096
5. Just when my partner starts to get close to me, I find myself pulling away.	**.687**	-.448	-.020
7. I get uncomfortable when an adult partner wants to be very close.	**.656**	-.427	-.009
9. I don't feel comfortable opening up to adult partners.	**.725**	-.236	-.096
11. I want to get close to my partner, but I keep pulling back.	**.665**	-.370	-.058
13. I am nervous when partners get too close to me.	**.684**	-.416	-.002
15. I feel comfortable sharing my private thoughts and feelings with my partner.	**.578**	.394	-.042
17. I try to avoid getting too close to my partner.	**.768**	-.217	.008
19. I find it relatively easy to get close to my partner.	**.562**	.285	.245
21. I find it difficult to allow myself to depend on adult partners.	**.450**	-.055	**.689**
23. I prefer not to be too close to adult partners.	**.721**	-.257	-.105
25. I tell my partner just about every-thing.	**.661**	**.405**	-.166
27. I usually discuss my problems and concerns with my partner.	**.657**	**.420**	-.171
29. I feel comfortable depending on adult partners.	**.498**	.275	**.531**
31. I don't mind asking adult partners for comfort, advice, or help.	**.644**	**.447**	-.017
33. It helps to turn to my adult partner in times of need.	.324	.380	-.128
35. I turn to my partner for many things, including comfort and reassurance.	**.616**	**.486**	-.092

Revised attachment dimensions

The results from the EFA analyses were incorporated into the baseline model to compare the results of the final model. Specifically, the items that did not achieve a factor loading of >.40 or loaded on multiple factors were eliminated from both male and female subscales. The revised variables of avoidance and anxiety for both males and females were incorporated into the final model.

Final Model

The final model incorporated the results from the EFA, removing particular items from each subscale, discussed previously. By removing additional items from the measure, maximum likelihood estimation was unable to estimate scores in the final model for 49 couples due to missing data. Therefore, the final model was reduced to 248 couples (N = 248). The final model (See Figure 6, p. 62) demonstrated an overall reasonable model fit, suggesting an improvement over the baseline model. The chi-square test of model fit for the final model was non-significant, .66 (df = 2, p = .72), indicating the retention of the hypothesis that the model is correct, or reasonable model fit. The RMSEA for the final model was .00 (90% CI = .00-.09, p = .83), which also indicates a good model fit. Finally, the value for the CFI was 1.00, which further supports good fit and improvement over the baseline model. It is important to note that a CFI of 1.00 indicates simply $\chi^2_M < df_M$, but does not determine a perfect model fit (Hu & Bentler, 1999). While model fit indices indicate a general acceptance of the overall model variables and relationships, specific paths for the model must be examined to determine clinical implications.

Actor effects of final model

Results for actor effects of male and female partners are presented in Figure 6 (p. 62). Significance for each path was determined using the Bonferroni approach to minimize the

likelihood of a Type I error, as several relationships were tested on each partner's symptom distress at Time 2 (i.e., .05/4 = .013). A bold line indicates the path is significant at the $p < .01$ level in the final model. Paths from Time 1 symptom distress to Time 2 symptom distress mirrored those from the baseline model. The path was significant for male participants and demonstrated a positive relationship. However, the relationship for females was non-significant.

In comparison to the baseline model, male actor effects for personal anxiety and Time 2 symptom distress was no longer significant at the $p < .01$ level, which suggests male attachment anxiety had no effect on their personal symptom distress at Time 2. In contrast, the relationship between anxiety and symptom distress among female participants was significant in the final model. A negative relationship was demonstrated, which suggests high anxiety at among women Time 1 resulted in low symptom distress at Time 2. There were also changes present in the actor effects of client avoidance from the baseline to the final model. The path from male personal avoidance at Time 1 to symptom distress at Time 2 became non-significant in the final model, which is contrary to the baseline model. The relationship between women's avoidance and symptom distress remained significant in the final model. In contrast to the negative relationship demonstrated in the baseline model, the path in the final model indicated a positive relationship. Such a relationship indicates women with high avoidant attachment at Time 1 experience high symptom distress at Time 2.

Partner effects of final model

Results for partner effects of male and female partners are also presented in Figure 6 (p. 62). Partner effects for both male and female partners examined the relationship between personal anxiety and avoidance with his or her partner's Time 2 symptom distress. The influence of partner's anxiety on symptom distress for male participants was non-significant in the baseline

model, indicating male partners' anxiety had no effect on Time 2 symptom distress, consistent with the baseline model. The partner effect for female partners revealed a significant negative relationship, which is a change from the baseline model. Such a relationship suggests that high women's anxiety resulted in low male partner symptom distress.

Both males and females demonstrated a significant partner effect for attachment avoidance on Time 2 symptom distress in the final model. The avoidance partner effects are both consistent with the baseline model. Females exhibited a significant positive relationship, suggesting that increased avoidance of female partners resulted in greater symptom distress of their male partners. A significant inverse relationship was again found for the partner effect among males, which indicates increased female partner's avoidance led to an increase in symptom distress of the male partner at Time 2.

The research questions derived for the present study are offered below. Results from the final model revealed some relationships that are consistent with the attachment literature. As well, some effects were observed that present new findings for adult attachment among couples. It is necessary to explore both further to reveal clinical implications for use in couple therapy.

Actor Effects:

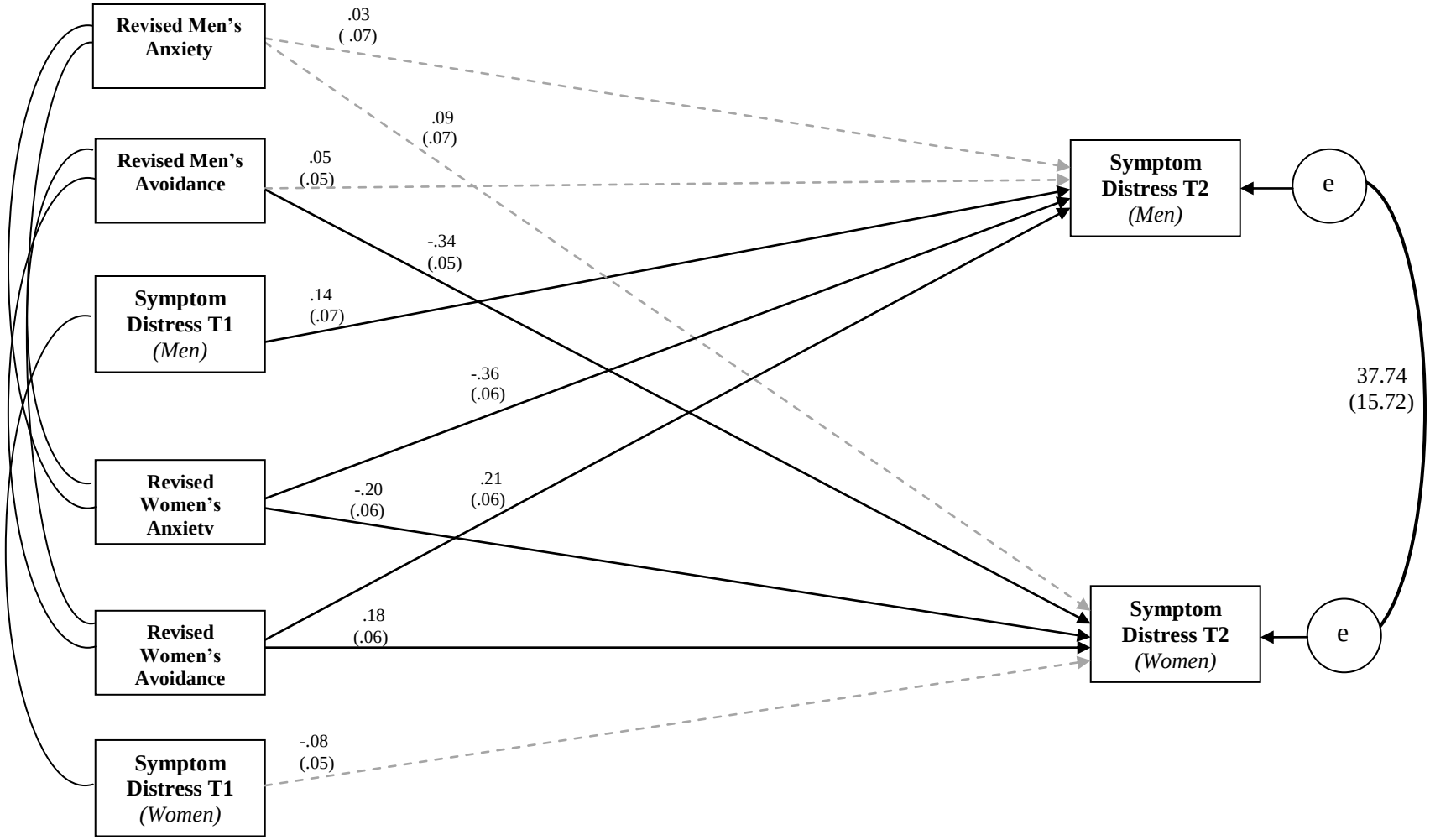
1. Male partners' attachment anxiety at Time 1 was not predictive of their own symptom distress at Time 2.
2. Male partners' attachment avoidance at Time 1 was not predictive of their own symptom distress at Time 2.
3. Female partners' attachment anxiety at Time 1 was predictive of their own symptom distress at Time 2.

4. Female partners' attachment avoidance at Time 1 was predictive of their own symptom distress at Time 2.

Partner Effects:

5. Male partners' attachment anxiety at Time 1 was not predictive of their female partners' symptom distress at Time 2.
6. Male partners' attachment avoidance at Time 1 was predictive of their female partners' symptom distress at Time 2.
7. Female partners' attachment anxiety at Time 1 was predictive of their male partners' symptom distress at Time 2.
8. Female partners' attachment avoidance at Time 1 was predictive of their male partners' symptom distress at Time 2.

Figure 6: *Final Model*



CHAPTER 5

Discussion

This study offers support for several previous findings within the clinical and attachment literature and some new perspectives on attachment dimensions among couples in therapy. The use of the Actor-Partner Interdependence Model (Kenny & Cook, 1996) allowed actor and partner effects of attachment anxiety and avoidance of both male and female partners to be examined simultaneously, offering a unique method for addressing couple attachment dimensions that contribute to symptom distress in therapy. Actor effects of women's anxiety and avoidance were detected, as well as partner effects of women's anxiety and avoidance on male partners' symptom distress following four sessions of couple therapy. A partner effect was also indicated by men's avoidance on female partners' symptom distress at Time 2. Additionally, results from the exploratory factor analysis of the Experiences in Close Relationships measure (Brennan et al., 1998) offer a means to more accurately assess attachment dimensions of couples in therapy.

In the following sections, the strengths and limitations of the present study and applications of the findings to couple therapy are discussed in greater detail. First, the results of the EFA are applied to the clinical context for the assessment of adult attachment. Second, the actor and partner effects are applied to the available attachment literature for use in a clinical context, including clinical implications of the findings. Finally, limitations of this study and future directions for research are addressed for subsequent studies in the area of attachment and symptom distress among clinical couples.

EFA – Revised Attachment Dimensions

The purpose of incorporating the EFA results into the baseline model was to eliminate any unexplained variance from the model that was associated with particular items, resulting in a more parsimonious final model. The effort to eliminate unexplained variance by conducting the EFA revealed items that specifically identified attachment anxiety and avoidance among clinical couples. Items describing an element of attachment anxiety or avoidance may have a different meaning for clients experiencing symptom distress that are involved in couple therapy, causing some items to load on more than one factor. One explanation for multiple factor loadings of similarly worded items is inconsistent interpretation of the items among respondents across different samples (Floyd & Widaman, 1995). While the Experiences in Close Relationships (Brennan et al., 1998) measure of adult attachment has demonstrated strong validity and reliability among the original sample of college students, a factor analysis of the measure has not been specifically conducted with a clinical population. The items retained for the revised anxiety and avoidance variables offer a greater understanding about particular components of attachment dimensions that apply to clinical couples. By examining the particular wording of the single- and multiple-loading items, patterns within the subscales emerged for males and females.

On the anxiety subscale for men, items related to *worry* (i.e., 2, 4, 6, 8, 14, 22), *partner disclosure* (i.e., 18, 20, 24), and *time spent together* (i.e., 30, 32, 36) all loaded onto the anxiety factor. However, anxiety subscale items that loaded on multiple factors and were removed from analyses for male participants contained similar wording related to *personal desire for closeness* (i.e.,10, 12, 16, 26) with adult partners. The anxiety subscale for women revealed similar themes, including *worry* (i.e., 4, 6, 8), *partner disclosure* (i.e., 18, 20, 24), and *personal desire for closeness* (i.e.,10, 12, 16, 26). Items that multiple loaded for female participants on the anxiety

subscale items included wording related to the themes *time spent together* (i.e., 30, 32, 36) and *abandonment* (i.e., 2, 14, 22). There were two noteworthy differences between anxiety for men and women. The *personal desire for closeness* items were not included in anxiety for men, but were included for women, suggesting this theme may apply only to the anxiety of women in therapy. Additionally, the *time spent together* theme loaded onto the anxiety for men, but not women, which indicates amount of time spent with a partner is more indicative of anxiety among men in therapy.

Two themes were present for avoidance among male participants; *disclosure* (i.e., 1, 9, 15, 25, 27) and *comfort with closeness* (i.e., 3, 5, 7, 11, 13, 17, 23). Items that loaded on multiple factors and removed from analyses were the same for male and female partners, which centered on a theme of *dependence* (i.e., 21, 29, 31, 35). Avoidance among women was similar to men's avoidance, substituting only a few items for *disclosure* (i.e., 1, 9, 15) and *comfort with closeness* (i.e., 3, 5, 7, 11, 13, 17, 19, 23). The similarity of themes detected for both partners in therapy suggests avoidance items were interpreted similarly by men and women in therapy. The creation of the revised avoidance and anxiety variables for both male and female partners reduced the unexplained variance in the final model, more accurately detecting the influence of attachment on symptom distress for couples in therapy.

Summary of Clinical Findings and Implications

The well-substantiated relationship between attachment style and mental health symptoms (Bifulco et al., 2002; Cassidy, 1995; Eng et al., 2001; Hankin et al., 2005; Roberts et al., 1996) suggests attachment experiences affect psychological functioning and should therefore be included in the treatment approach. Specifically, attachment factors related to offering and eliciting emotional support underscore the role of an individual's romantic partner in mental

health treatment. The focus of this study was not supporting the efficacy of a particular model of couple therapy. However, it is worth noting that Emotionally Focused Therapy (EFT; Johnson, 1996) is informed by Attachment Theory and relational effects on partner interactions.

The overall goal of EFT is to alter the emotional interaction between partners, which are guided by each partners' working model of attachment (Johnson, 1996). The therapist's role is to facilitate corrective attachment interactions among couples to provide experiences that revise the working model for future use. While the goal of EFT is to alleviate relational distress, findings from this study indicate such interventions could be used to reduce individual symptom distress, as well. From an EFT perspective distress is explained in terms of adult attachment insecurity and efforts to obtain felt security, both of which contribute to negative interaction cycles among couples that maintain relational distress (Johnson & Greenberg, 1995). A common negative interaction cycle observed by couple therapist is the demand-withdraw, which is generally accompanied by anger and resentment (Johnson & Whiffen, 1999).

The demand-withdraw pattern is influenced by attachment anxiety and avoidance of each partner. Applied to attachment, a man who is high on anxiety would attempt to receive comfort from his partner to alleviate felt distress. Coupled with a female partner high on avoidance, she would respond to her partner's distress by distancing. Whenever both partners are unable to break this maladaptive pattern of interaction to have their attachment needs met, they are generally seen in couple therapy to alleviate their relational distress. In order to describe the unique actor and partner effects of attachment anxiety and avoidance from this study, clinical examples using a demand-withdraw pattern will be used to highlight the interdependence of attachment between partners to alleviate individual symptom distress.

Male actor effects

Avoidance. There was no significant male avoidance actor effect in the final model, suggesting symptom distress among male participants was not influenced by their own attachment avoidance. The results of this study parallel those of Lopez and colleagues (2001) who also found avoidance had no effect on symptoms of mental health distress. The authors speculated that an overt value of self-reliance and emotional repression may contribute to the failure to detect mental health symptoms among individuals with high avoidance (Lopez et al., 2001; Mikulincer, 1995). As well, highly avoidant individuals frequently withdraw from their romantic partners and dismiss positive experiences from their working model (Johnson, 1996). The absence of a direct effect of men's avoidance on symptom distress underscores the importance of including one's female partner in treatment to facilitate positive attachment interactions in therapy. Therapists may facilitate interventions that discourage emotional withdraw in therapy to the reduce symptom distress of highly avoidant men.

Anxiety. Men's anxiety also failed to demonstrate a significant actor effect for symptom distress in the final model. This is contrary to previous findings, which support the direct influence of attachment anxiety on increased mental health symptoms (Eng et al., 2001; Hankin et al., 2005). The absence of a significant actor effects for males in this study offers support of couple therapy to alleviate individual symptom distress among men. In fact, the inclusion of female partners in the analysis has revealed two significant partner effects for men, which provide a more complete representation of the role of attachment in treatment efforts for men. More specifically, interventions aimed at improving a partner's ability to provide support to the client may be more effective in alleviating men's symptom distress. This finding will be further detailed in the discussion on partner effects.

Female actor effects

Avoidance. Women in this study who reported high avoidance also indicated high symptom distress at Time 2. Individuals with high avoidance describe a lack of emotional investment and value of self-reliance (Bartholomew, 1990; Henderson et al., 2005). Such individuals have also exhibited emotional repression and suppressive coping in response to stressful situations (Lopez et al., 2001; Mikulincer, 1995). It follows that female participants who valued self-reliance and engaged in emotional repression over the course of therapy would be reluctant to engage in the therapeutic process, resulting in high symptom distress at Time 2. The avoidance actor effect suggests facilitating positive emotional experiences through interactions with her partner will work to decrease female symptom distress, as highly avoidant individuals are often unable to incorporate positive attachment experiences in their working model (Johnson & Whiffen, 1999).

A rationale for the findings that women and men with high avoidance did not experience a reduction in symptom distress over the course of therapy may be due to the overt value of self-reliance discussed previously. As such, individuals who score high on avoidance are often skeptical of the therapy process and untrusting of therapists (Johnson & Whiffen, 1999). Attachment avoidance has also demonstrated greater stability over time compared to highly anxious or secure individuals (Davila, Burge, & Hammen , 1997), which may hinder progress from attachment-related interventions. It follows that women and men who score high on avoidance may require more time in therapy to experience reductions in symptom distress.

Anxiety. Results from this study indicate high female attachment anxiety was related to low symptom distress at Time 2. It has been suggested that individuals with high anxiety experience heightened emotion and engaged in negative thought processes, contributing to

increased mental health symptoms (Bifulco et al., 2002; Hankin et al., 2005; Wei et al., 2003). Behaviors associated with high anxiety, such as proximity seeking behavior and elicitation of emotional support when distressed (Rholes et al., 1999), often result in the pursuing of romantic partners during times of distress in an effort to alleviate the distress (Johnson & Whiffen, 1999). The significant actor effect of anxiety among women suggests therapeutic interventions aimed at blocking the woman's pursuing efforts toward her partner, as well as altering the tendency to engage in negative thought processes would contribute to reduced symptom distress of women in couple therapy.

The complete model suggests that men participating in couple therapy benefit from the interactive couple interventions in therapy, as they did not display an actor effect for anxiety or avoidance in this study. In the context of EFT, the second stage of therapy is directed at reformulating and restructuring emotional experiences between partners to disconfirm negative working models (Johnson & Whiffen, 1999), which would greatly benefit male partners as personal attachment had no effect. On the other hand, women participants experienced a direct effect of their personal attachment on symptom distress over the course of therapy, supporting the reduction of symptoms through individual-related interventions. For example, interventions aimed at interrupting rumination on negative thoughts that affect one's emotional and coping skills (Campbell et al., 2005; Wei, et al., 2003) would contribute to the reduction of symptom distress for women in couple therapy. Additionally, interventions addressing individual thought processes of women would also benefit male partners due to the presence of partner effects in the model.

Male partner effects

Results indicated that men's anxiety had no effect on female partners' symptom distress in this study. However, men's avoidance imposed a significant inverse relationship on women's symptom distress. In other words, high men's avoidance at Time 1 was associated with low symptom distress among their female partners at Time 2. Such an influence seems contrary to the theoretical description of avoidance, which suggests avoidant individuals respond to others' distress by distance (Mikulincer & Shaver, 2007). Whiffen (2005) explained similar findings by suggesting women experiencing mental health symptoms coupled with male avoidant partners are likely to seek alternative sources of emotional support (e.g., friends or family members). A female participant coupled with a male partner exhibiting high attachment avoidance would benefit from EFT therapy as the therapist serves as the secure-base (i.e., source of support) during the first sessions of therapy (Johnson, 1996). Over the course of treatment, EFT interventions guide the man with high avoidance to engage with his partner, discouraging withdrawal during times of her distress. Based on the male partner effects found in the model, such influence would result in decreased symptom distress for the female partner.

Female partner effects

Avoidance. There was a significant female avoidance partner effect on male symptom distress. Specifically, high avoidance of female partners at Time 1 predicted high symptom distress of male partners at Time 2. Whiffen (2005) also found male spouses were more vulnerable to depression in the event that their partners demonstrated high levels of avoidance. Based on the theoretical descriptions of attachment avoidance, individuals with high avoidance experience discomfort with emotional closeness and respond to partners' distress by distancing (Mikulincer & Shaver, 2005). It may be interpreted, then, that male partners experiencing

distress also experienced a lack of emotional support by female partners who are highly avoidant over the course of therapy. It is worth reiterating the opposite partner effect was shown for high men's avoidance and female partner's symptom distress. In contrast to women who were able to benefit from external support (e.g., therapy, friends) during times of distress, male partners of highly avoidant females may rely primarily on their partner for relief of their personal distress (Whiffen, 2005). Therapists using attachment informed models of therapy, such as EFT, should be knowledgeable that couples including a woman high on avoidance may require longer time and greater support to experience reductions in symptom distress.

Anxiety. In this study, the female anxiety partner effect showed an inverse relationship with male partners' symptom distress. In other words, high anxiety among female partners at Time 1 contributed to low symptom distress for their male partners at Time 2. Individuals with high attachment anxiety have been described as self-focused and unable to provide partner support during times of distress (Mikulincer & Shaver, 2007). However, anxiety is also characterized by a fear of abandonment by significant others, which may lead to internalizing a partner's distress as a reflection of their personal worth (Mikulincer and Shaver, 2005). When applied to this study, female participants with high anxiety may have engaged in pursuing behaviors to circumvent negative reflections of their own worth. For example, a couple in which the male partner is exhibiting symptoms of depression may present for therapy to treat relational distress. Over the course of therapy, the female partner would be blocked from pursuing her partner in an effort to facilitate emotional support for his symptom distress.

To summarize the actor and partner effects, it necessary to compare male and female attachment influences on partner symptom distress as they apply to this clinical sample. Notably, neither of the actor effects were significant for male participants, whereas both of the female

partner effects were significant. One interpretation of these findings may be that male partners participating in couple therapy experience stronger influence from their partners' attachment than personal attachment. As previously stated, male partners would greatly benefit from couple-related interventions, such as reformulating emotional interactions between partners to disconfirm negative working models (Johnson & Whiffen, 1999). In contrast, female participants demonstrated significant actor effects for both dimensions of attachment on their own symptom distress, as well as an inverse male avoidance partner effect. Therefore, individual-related interventions such as interrupting negative thought processes and development of emotional coping skills would support both female and male partners' reduction of symptom distress in therapy. The use of specialized interventions with men and women in couple therapy is supported by the results from this study. However, applications should be interpreted with caution, as this study had several limitations.

Limitations and Future Directions for Research

External validity

While this study makes an important contribution to couple therapy, the study contains several threats to external validity. Results from this study may only be generalized to a particular portion of the population due to limited variability of the sample. This study was conducted in two university training clinics in the Southeastern United States. As a result, the sample is not an accurate representation of the general clinical population participating in couple therapy. Particular demographic groups were underrepresented and only heterosexual couples were included in the sample, which limits the generalization of results from this study.

Participants included in the sample at Time 2 were predominantly Caucasian. Therefore, results may not apply to samples that predominantly consist of racial/ethnic minority

participants. Further, the overall sample at Time 2 was highly educated, obtaining some amount of education beyond a high school diploma. The majority of the sample also reported an annual income above $20,000. The level of education and annual income of the sample used in this study do not parallel that of the general clinical population, therefore results may not extrapolate to participants that have less than a high school diploma and/or low socioeconomic status. Future studies should include couples with greater demographic variability (e.g., racial minority participants, low SES couples) to strengthen the external validity of the model.

The sample included in this study was made up of solely heterosexual couples. The university clinics participating in data collection offer couple therapy to same-sex couples. However, there were not enough GLBT couples to include in analyses. Replication of the model among same-sex couples is a direction for subsequent studies. As a result, the generalization of results from this study is limited to couple therapy participants described in the sample.

Internal validity

It was outside the scope of this study to examine the effectiveness of a particular model of therapy. However, it is important to note the therapists in the two university training clinics where data were collected practice a variety of therapeutic approaches. It is likely that particular therapists may have used a model of therapy that addresses attachment related concerns, influencing the participants' level of distress over the course of therapy. As well, the two therapy clinics are training facilities, which supervise student therapists in various stages of therapeutic training (i.e., master's and doctoral). Therapists in the two clinics have different levels of experience, possibly influencing the effectiveness with which they practice therapy. For example, a couple receiving therapy from an experienced therapist may show greater improvement in symptom distress over the course of therapy. To address the threat posed to the

internal validity of the study, subsequent studies should control for therapist variables in the model.

In addition to controlling for the effect of therapist variables, including the particular model of therapy used by each therapist would also improve the internal validity of future studies. Notably, the couples in this study reported a variety of relationship statuses, including married, dating/committed, and divorced or separated, which may affect the therapist's approach to treatment. For example, separated or divorced couples would perhaps have different attachment influence with one another than a couple that is married or dating. Therefore, attachment dimensions may influence the presence of mental health symptoms differently for couples based on their relationship status.

Construct validity

Symptom distress. The OQ – 45.2 (Lambert et al., 1996) was originally developed for use with individuals receiving therapy. The Symptom Distress (SD) subscale was specifically chosen to measure individual symptom distress as the dependent variable in this study. However, the psychometric properties of the measure have not been replicated with participants in couple therapy. While the overall measure has demonstrated sensitivity to change over the course of therapy, several items may potentially be a threat to construct validity of the study. Specifically, three items of the 25-item SD subscale have revealed a lack of change sensitivity (Vermeersch et al., 2000). The authors hypothesize that some of the symptoms measured by the items are static in nature, which require longer time in therapy to demonstrate change. Finally, the SD subscale has indicated some differences between males and females (Johnson, Ketring, Anderson, & Tambling, Under Review). Such a discrepancy in the measurement of symptom distress between

men and women may have contributed to the difference in significance of findings in the present study.

Adult attachment. The ECR (Brennan et al., 1998) was developed among a sample of undergraduate individuals. The psychometric properties of the measure were examined in this study for the purpose of measuring attachment anxiety and avoidance of couples in therapy. However, the ability of the measure to accurately assess attachment style in a clinical sample has come into question. While the overall measure has demonstrated superior measurement of attachment in comparison to other self-report measures, the ECR has shown inaccurate assessment of those with low anxiety and avoidance (i.e., secure style) (Fraley et al., 2000). Fraley and colleagues (2000) suggest averaging the responses of the ECR subscales limits the ability to identify changes in secure styles over time. Said differently, the measure more accurately assesses insecure styles of attachment (i.e., high anxiety, high avoidance) over time. Such limitations of the ECR pose a threat to the construct validity of this study.

Additional studies for future research

While the scope of this study was aimed toward individual distress treated with couple therapy, further investigation should incorporate relational distress as a variable in the tested model. The results of the present study underscore the reciprocal nature of individual mental health symptoms, but relationship distress and individual distress may be closely linked. For example, couples with a depressed partner frequently engage in behaviors that support adverse processes among the couple, such as increased negative interaction with one another and decreased problem-solving skills (Beach et al., 1998; Fincham & Beach, 1999; Schmaling & Jacobson, 1990). In addition to individual psychological distress, attachment has shown to influence relational factors such as satisfaction, adjustment, and distress. (Frei & Shaver, 2002;

Scott & Cordova, 2002; Treboux et al., 2004; Wampler et al., 2003). Applied to therapy, clients who express concern about relationship difficulties and those who view relationship concerns as having preceded depressive symptoms may benefit from marital therapy in the treatment of individual mental health symptoms (Beach et al., 1998). It follows that incorporating relational distress into future research would greatly inform the application of the model to couple therapy.

Conclusions

Findings from this study have made several contributions to the clinical literature. Particularly, this study has provided a greater understanding of the role of attachment anxiety and avoidance in couple therapy for the treatment of individual symptom distress. Through the examination of both attachment avoidance and anxiety dimensions as separate factors affecting symptom distress, the unique influences of each dimension can be used to inform the process of couple therapy. Preliminary findings in the attachment literature were also expanded by identifying the different influence of men and women's anxiety and avoidance on symptom distress by the inclusion of both actor and partner effects in the model. Despite the aforementioned areas of concern, this study offers support for the influence of attachment on individual mental health symptoms in couple therapy.

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Appendix A

Experiences in Close Relationships (Brennan, Clark, Shaver, 1998)

The following statements concern how you feel in adult relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Responding to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale

Disagree strongly					Neutral/mixed	Agree strongly
1	2	3	4	5	6	7

_____ 1. I prefer not to show a partner how I feel deep down.
_____ 2. I worry about being abandoned.
_____ 3. I am very comfortable being close to adult partners.
_____ 4. I worry a lot about my relationship.
_____ 5. Just when my partner starts to get close to me I find myself pulling away.
_____ 6. I worry that adult partners won't care about me as much as I care about them.
_____ 7. I get uncomfortable when a adult partner wants to be very close.
_____ 8. I worry a fair amount about losing my partner.
_____ 9. I don't feel comfortable opening up to adult partners.
_____ 10. I often wish that my partner's feeling for me were as strong as my feelings for him/her.
_____ 11. I want to get close to my partner, but I keep pulling back.
_____ 12. I often want to merge completely with adult partners, and this sometimes scares them away.
_____ 13. I am nervous when partners get too close to me.
_____ 14. I worry about being alone.
_____ 15. I feel comfortable sharing my private thoughts and feelings with my partner.
_____ 16. My desire to be very close sometimes scares people away.
_____ 17. I try to avoid getting too close to my partner.
_____ 18. I need a lot of reassurance that I am loved by my partner.
_____ 19. I find it relatively easy to get close to my partner.
_____ 20. Sometimes I feel that I force my partner to show more feeling, more commitment.
_____ 21. I find it difficult to allow myself to depend on adult partners.
_____ 22. I do not often worry about being abandoned.
_____ 23. I prefer not to be too close to adult partners.
_____ 24. If I can't get my partner to show an interest in me, I get upset or angry.
_____ 25. I tell my partner just about everything.
_____ 26. I find that my partner(s) don't want to get as close as I would like.
_____ 27. I usually discuss my problems and concerns with my partner.
_____ 28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.
_____ 29. I feel comfortable depending on adult partners.
_____ 30. I get frustrated when my partner is not around as much as I would like.
_____ 31. I don't mind asking adult partners for comfort, advice, or help.
_____ 32. I get frustrated if adult partners are not available when I need them.
_____ 33. It helps to turn to my adult partner in times of need.
_____ 34. When adult partners disapprove of me, I feel really bad about myself.
_____ 35. I turn to my partner for many things, including comfort and reassurance.
_____ 36. I resent it when my partner spends time away from me.

Appendix B

Outcome Questionnaire – 45.2 (OQ-45.2); Symptom Distress Subscale (Lambert, Bulingame, Umphress, Hansen, Vermeersch, Clouse, & Yanchar, 1996).

	Never	Rarely	Sometimes	Frequently	Almost Always
I tire quickly	☐0	☐1	☐2	☐3	☐4
I feel no interest in things	☐0	☐1	☐2	☐3	☐4
I blame myself for things	☐0	☐1	☐2	☐3	☐4
I feel irritated	☐0	☐1	☐2	☐3	☐4
I have thoughts of ending my life	☐0	☐1	☐2	☐3	☐4
I feel weak	☐0	☐1	☐2	☐3	☐4
I feel fearful	☐0	☐1	☐2	☐3	☐4
After heavy drinking, I need a drink the next morning to get going	☐0	☐1	☐2	☐3	☐4
I am a happy person	☐4	☐3	☐2	☐1	☐0
I feel worthless	☐0	☐1	☐2	☐3	☐4
I have difficulty concentrating	☐0	☐1	☐2	☐3	☐4
I feel hopeless about the future	☐0	☐1	☐2	☐3	☐4
I like myself	☐4	☐3	☐2	☐1	☐0
Disturbing thoughts come into my mind that I can't get rid of	☐0	☐1	☐2	☐3	☐4
I have an upset stomach	☐0	☐1	☐2	☐3	☐4
My heart pounds too much	☐0	☐1	☐2	☐3	☐4
I am satisfied with my life	☐4	☐3	☐2	☐1	☐0
I feel that something bad is going to happen	☐0	☐1	☐2	☐3	☐4
I have sore muscles	☐0	☐1	☐2	☐3	☐4
I feel afraid of open spaces, of driving, or being on buses, subways, and so forth.	☐0	☐1	☐2	☐3	☐4
I feel nervous	☐0	☐1	☐2	☐3	☐4
I feel something is wrong with my mind	☐0	☐1	☐2	☐3	☐4
I have trouble falling asleep or staying asleep	☐0	☐1	☐2	☐3	☐4
I feel blue	☐0	☐1	☐2	☐3	☐4
I have headaches	☐0	☐1	☐2	☐3	☐4