
Effects of Couples' Anxiety and Avoidance on Physical Health Symptoms

by

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Abstract

Couples presenting for therapy can be presumed to be experiencing relational distress. Attachment theory guides an understanding of couples' problems in terms of each partner's avoidance or anxiety in the relationship. The current study examined whether high levels of avoidance and anxiety affect each partner's reporting of physical symptoms at therapy intake. Associations were tested for each partner's own physical symptoms, as well as the physical symptom reporting of his or her partner. We also tested these associations among different configurations of couple attachment security. In the whole sample, high levels of avoidance and anxiety predicted high symptom reporting in both genders, and high female anxiety predicted high male symptom reporting. Findings were somewhat more complex when moderated by attachment security configuration. Crossover effects were shown from a secure male's high avoidance to his insecure female partner's high symptom reporting. Gender role norms in a relational context inform interpretation of our results.

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INTRODUCTION

Health and relationships are two of the most vital aspects of human existence. Yet only recently have researchers begun examining ties between the two. Couple relationships provide adults a haven of security amid experiences of confusion or distress (Hazan & Shaver, 1994). Physical symptoms can signal distress of the body or the mind (Meredith, Ownsworth, & Strong, 2008). Attachment theory (Bowlby, 1969) has been used in recent years to examine links between individuals' experiences in relationships and their physical health. Across studies, trends have been found that individuals high in anxiety tend to catastrophize pain, over-utilize health care systems, and report more symptoms overall, whereas individuals high in avoidance under-report symptoms, suppress cognitions of pain, and forestall seeking appropriate medical care. That these health behaviors and outcomes have been partially explained by patient's attachment quality suggests a broader influence of attachment on health.

Research has yet to fully explore how health and attachment are related in couple relationships. Most adults spend a significant portion of their lives in a couple relationship (Cherlin, 2004), a context in which both health and attachment behaviors influence well-being (Kiecolt-Glaser, 2001; Robles & Kiecolt-Glaser, 2003). There is a considerable gap in the literature regarding how partners' avoidance, anxiety, and health behaviors affect outcomes of the other partners. The hyperactivating and deactivating strategies of insecure attachment would most saliently affect individuals in adult attachment relationships, and the carryover of hyperactivation or deactivation to partners' health is quite likely, based on the available research.

Attachment anxiety and avoidance are important in the experiencing of physical and psychosomatic symptoms in individuals who are in couple relationships. We will begin by investigating this relationship among couples in therapy, a fitting sample in which to study the

effects of anxiety and avoidance. These couples can be presumed to be distressed, as they voluntarily presented for relational therapy, and we will test whether their distress manifests somatically, as predicted by the literature. We will also test for differences in these associations by configuration of couple attachment security. Two-hundred and seventeen heterosexual couples' attachment anxiety and avoidance were measured using the Experiences in Close Relationships scale (Brennan, Clark, & Shaver, 1998) and we will compare them with their reported physical symptoms on the Outcome Questionnaire (Lambert et al., 2004). We will test for associations between individuals' anxiety, avoidance, and reported symptoms, and explore whether gender differences or couple configuration moderation may exist in these associations. We will also add to the existing research relating attachment and health by examining the potential for crossover effects in couples from one partner's attachment quality to the other partner's health.

LITERATURE REVIEW

Development of Attachment Quality

The biologically-driven relationship between infants and caregivers was described by John Bowlby (1969) as attachment. According to attachment theory, infants exhibit strategies of approach, distress signaling, and withdrawal based on the consistency or inconsistency of caregivers' responsiveness (Bowlby, 1988). These attachment behaviors develop to maintain proximity to caregivers, who become children's safe havens. From this secure base, they can begin to explore the world. Children whose caregivers are inconsistently responsive develop hyperactivating strategies, becoming extra vigilant and expressing distress powerfully so that caregivers are more likely to provide comfort. Children whose caregivers are consistently unresponsive to normal distressed behavior (e.g., crying) learn to avoid expressing distress by

denial or suppression in order to prevent further distance from the caretaker (Bowlby, 1969; Feeney, 2000).

Attachment behaviors are used to gain proximity to caregivers not just for basic feeding and protection needs, but also as a resource for managing arousal or threat from the environment (Bowlby, 1969; Davila & Levy, 2006; Mikulincer & Florian, 1998). As children's experiences expand and caregivers are either a competent secure base or unable to appropriately respond to the children's cues, attachment behaviors become more deeply ingrained and the behavioral repertoire for managing arousal is applied across most situations. (Cornell & Hamrin, 2008; Feeney, 2000). Though attachment patterns are developed during childhood, they remain relatively stable over the life span. Several longitudinal studies have demonstrated consistency in individuals' attachment quality from early childhood to adulthood (Hamilton, 2000; Klonen & Bera, 1998; Scharfe & Cole, 2006; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000).

Adult Attachment Quality

Adult attachment is the pattern of interacting with others in the world that develops from experiences with caregivers or important relationship partners. The proximity to others affects individuals' felt security much the same way that proximity to caregivers affects infants' security (Maunder & Hunter, 2008). Adult attachment can be most readily observed in close relationships or relationships designed to provide security, though certain aspects of individuals' attachment patterns also may affect their level of avoidance or anxiety in non-attachment relationships (Maunder & Hunter, 2001). Attachment relationships developed in adulthood differ from child/parent attachments because they are reciprocal, with the expectation that both partners provide care and receive comfort, and because proximity seeking in adulthood may also be a means to engaging sexually with the attachment figure (Hazan & Shaver, 1994). However, adult

attachment figures are still utilized as a secure base in times of environmental threat and provide felt security for confronting and enduring stress. In fact, secure attachment in adulthood is related to a greater willingness to seek support in times of discomfort (Maunder & Hunter, 2001).

Upon reaching adulthood, most individuals have definitive (though usually out-of-awareness) appraisals of self and others. These appraisals, called internal working models by Bowlby (1988), shape their daily perceptions of relationship functioning, but may exert the most influence on behavior when individuals are in conditions perceived as threatening (Feeney, 1999). From the roots planted in infancy, adults' arousal-management strategies manifest as secure attachment, anxious/ambivalent attachment, avoidant attachment, and disorganized attachment. The internal working models of anxious-ambivalent individuals often only allow them to perceive themselves as less loveable than others or worthy only on conditional bases. Due to early parental inconsistency, this well-learned threat of attachment loss tends to exaggerate perceptions of threatening events, making them seem out of one's control and irreversible (Mikulincer & Florian, 1998). Ambivalent adults often show heightened expressions of distress and appraise threats as more dangerous than do other adults (Feeney, 1999). Avoidant adults developed an internal working model that others are untrustworthy and unavailable from early experiences with rejecting parents. They learn self-reliance as a protective mechanism from being repeatedly hurt by such rejection. This affects adult life by reducing the likelihood that avoidant individuals will seek support or express any negative affect when distressed (Diamond, Hicks, & Otter-Henderson, 2006; Feeney, 1999). Disorganized individuals haven't codified any useful strategies to protect them from harm because they often were the victims of loss, neglect, or abuse over which they had no control. They have a negative view of self and a negative view of others since they were never able to adequately find comfort from stress and threat

(Bartholomew & Shaver, 1998). Secure adults are most likely to see themselves as loveable and others as trustworthy. This leads to deriving comfort from close relationships and seeking support when distressed (Hazan & Shaver, 1994).

Attachment Quality and Health

One situation that presents threat to individuals and often activates attachment behavior is illness. Just as children turn to their caretakers when they are stressed or ill, so do adults turn to significant others or medical professionals for comfort (Ciechanowski, Walker, Katon, & Russo, 2002). Medical research has recently begun studying patient health behaviors through an attachment-based perspective. Some themes have emerged with respect to symptom reporting, overall disease experience, coping, and health care utilization. The research presented correlating attachment pattern to various health behaviors has used a variety of measures in different studies. Some use traditional anxious/secure/avoidant classifications (Brennan, Clark, & Shaver, 1998; Hazan & Shaver, 1987; George, Kaplan & Main, 1985), while others (Bartholomew & Horowitz, 1991) use a system based on measuring subjects' models of self and models of other: secure (positive self, positive other), dismissing (positive self, negative other), preoccupied (negative self, positive other), and fearful (negative self, negative other). Therefore, classifications may not always align and comparisons across studies warrant awareness of these differences in measurement.

Stuart and Noyes (1999) estimate that 30% to 60% of primary care patients present at some time with symptoms that don't have a medial basis. Another study of patients with unexplained symptoms found that nearly half of such people acknowledged emotional factors as contributing to their symptoms, and that these patients were 2.47 times more likely to have an insecure attachment pattern than patients with explained symptoms (Taylor, Mann, White, &

Goldberg, 2000). Preoccupied and fearful attachment qualities are related to more reported somatic symptoms, whereas high levels of avoidance are associated with inhibition of symptom reporting, both in large-scale surveys and disease-specific studies (Ciechanowski, Katon, Russo, & Dwight-Johnson, 2002; Ciechanowski, Walker et al., 2002). Stuart and Noyes suggest that early life experiences such as having illness behavior modeled by a parent or childhood abuse and neglect can contribute to somatic behavior. The current cultural understanding of the medical profession may also encourage over-reporting by people high in anxiety if patients believe that every symptom indicates a disease with a definitive cure (Stuart & Noyes, 1999).

Some specific diseases have actually been shown to be related to attachment pattern. Ulcerative colitis (UC) occurs in patients both with and without vulnerability-marking p-ANCA antibodies. Maunder, Lancee, Greenberg, Hunter, and Fernandes (2000) found that patients were likely to either have the antibodies present or to be p-ANCA absent and high in avoidance. The existence of both a cellular and an attachment origin for this physiological ailment supports the idea of a link between avoidance and health. Maunder and colleagues hypothesize that individuals high in avoidance have tendencies not to seek support during times of stress, which keeps the normal biological stress-regulation system constantly aroused, creating vulnerability for UC. In a national survey, high attachment anxiety was shown to be related to cardiovascular conditions such as high blood pressure, heart attack, and stroke whereas high avoidance was associated with arthritis (McWilliams & Bailey, 2010). Patients high in anxiety with Inflammatory Bowel Disease (IBD) had significantly higher disease severity when they perceived low social support, whereas social support did not influence the disease severity of non-anxious patients (Gick & Sirois, 2010). The spectrum of ailments with anxiety and avoidance related symptom differences is quite striking. These associations between attachment

pattern and manifestation of symptoms present an interesting perspective on the interplay between managing arousal and the physical threat of illness.

One of the few experimental studies to examine attachment and health behavior, Meredith, Strong, and Feeney's study (2006b) induced pain using a cold pressor, yielding relevant results. In the cold pressor task, participants plunge their hands into tanks filled with ice-cold water for a determined amount of time. Convenience sample participants estimated pain before, during and after use of the cold pressor. Though there was a good deal of variability across individuals' pain thresholds and pain tolerances, secure participants were consistently lower on catastrophizing than insecure participants. Catastrophizing involves a sense of powerlessness and exaggeration of negative effects of pain. Higher anxiety individuals catastrophized more pre-task and felt less control over their pain post-task. Younger individuals high in avoidance reported more pain than older, securely attached participants, but high-avoidance participants catastrophized less overall. Higher levels of attachment anxiety significantly predicted lower pain threshold, more emotional distress, and maladaptive coping cognitions (Meredith et al., 2006b). The relationship between these variables indicates that physical pain is probably not the only factor at work in symptom reporting.

Patients' perceptions of distress and their coping strategies could play significant roles in both their anxiety and avoidance behaviors and their health behaviors. Kratz, Davis, and Zautra (2011) propose that attachment quality plays a role as both a predictor of the pain experience and a moderator of the response to the pain. Individuals' attachment qualities predispose them to hyperactivating, deactivating, or more effective coping strategies, so it is likely that these strategies would be used almost automatically in coping with pain or disease. Gick and Sirois (2010) found that among IBD patients, lower coping efficacy was related to higher disease

severity, but only when patients showed higher attachment anxiety. Similarly, chronic pain patients with high attachment anxiety increased their catastrophizing significantly more in the context of increased pain than did non-anxious patients (Kratz et al., 2011). Among a sample of 200 healthy women, emotional distress and pain hypervigilance were significantly related to pain intensity. Their pain-related fear, illness behavior, and pain catastrophizing were all significantly correlated with attachment anxiety (Martinez, Miro, Sanchez, Mundo, & Martinez, 2012). Schmidt, Strauss, and Braehler (2002) hypothesize that attachment anxiety may predispose an individual to increased sensitivity to physiological changes or distress, but Ciechanowski, Walker et al. (2002) view preoccupied individuals' high symptom reporting as a result of over-dependence on others for their own arousal management, stemming from attachment experiences in infancy. Research in this area has not yet conclusively determined if individuals high in anxiety actually experience more pain than non-anxious people, if they simply report symptoms and distress more often as means of gaining support, or if some combination of both factors is at work. What is known is that across studies, individuals with higher levels of attachment anxiety are characterized by negative emotional coping, more illness behavior, catastrophizing, fear of pain, and low pain self-efficacy (Martinez et al., 2012; Meredith, Strong, & Feeney, 2006a; Meredith et al., 2006b; Schmidt, Nachtigall, Wuethrich-Martone, & Strauss, 2002).

Health behaviors for patients with higher levels of avoidance are less frequently studied, perhaps due to these individuals' deactivating and suppression strategies that make them less likely to seek care in the first place. Chronic pain patients with high attachment avoidance have shown consistently lower social coping compared to non-avoidant patients (Ciechanowski, Walker et al., 2002). Diamond and colleagues (2006) used skin-conductance and self-report measures of distress reactivity to investigate avoidant coping strategies. Among low-avoidance

individuals, physiological measures and self-report measures were significantly related, but among high-avoidance individuals, physiological distress increased over the series of stress tasks while self-report of distress decreased. The researchers suggest that this disconnect between subjective reactivity and physiological reactivity denies the body a chance at successful autonomic regulation, and that continued use of such repressive coping is likely to accumulate negative health effects over the life span (Diamond et al., 2006). Mikulincer and Florian (1998) hypothesize that fear of death (the logical end result of poor health and health care) is dealt with by individuals high in avoidance by suppression of affect and social withdrawal. Those with high avoidance may also induce the rejection they anticipate by adhering poorly to treatment plans and maintaining negative views of caretaking others (Maunder et al., 2000; Ciechanowski et al., 2001). Maunder, Lancee, Nolan, Hunter, and Tannenbaum (2006) suggest that high-avoidance individuals are less able to self-soothe and control their states of arousal. Because this arousal control is needed for situational flexibility in a range of social situations, high-avoidance people simply withdraw to prevent the deficit from becoming obvious.

In contrast to individuals high in avoidance or anxiety using maladaptive coping styles learned while ineffectively seeking comfort from attachment figures, persons with secure attachment have shown more effective arousal management during times of illness. Secure individuals suffering from back pain saw their pain as less threatening and themselves as more able to handle the pain than did insecure individuals. A survey of a non-clinical sample showed that secure individuals showed less trait anger and more perceived social support than their insecure counterparts and that these variables were related to somatic reporting (Kidd & Sheffield, 2005). Secure attachment in patients at a chronic pain facility was also shown to be negatively associated with the duration of the patients' pain (Meredith et al., 2006a). Attachment

security would appear to predispose individuals experiencing illness to a greater sense of control over their arousal and more adaptive ways of coping with the illness.

A study in the spirit of our present research tested pathways from attachment quality to health outcomes through reports of affect, stress, social support, and health-risk behaviors (Sadava, Busseri, Molnar, Perrier, & DeCourville, 2009). These pathways were tested on a primarily female undergraduate sample and a sample of alcohol addiction clients. Findings indicated that affective experiences, perceptions of stress, and perceptions of social support were all intercorrelated. This is likely a result of individuals' attachment quality manifesting in each of these experiences as the enduring pattern of arousal maintenance. Attachment anxiety and avoidance were associated with less positive affect, more negative affect, and higher perceptions of stress, which all in turn predicted greater health-related distress in both samples (Sadava et al., 2009). These results support previous research in this line of inquiry but do not convincingly present affective and stress experiences as phenomena untangled from attachment quality.

If individuals' attachment pattern predicts how they experience stress and cope with pain, it is likely that avoidance and anxiety influence patients' frequency and depth of interactions with their health care system. Health care utilization varies a good deal among individuals. A large community sample survey showed associations between stressful life events, psychological distress, and health care seeking. Somatization and medical utilization were also related to childhood experiences of abuse or neglect or having a parent with a chronic illness (Katon, Sullivan, & Walker, 2001). Abuse and neglect predict insecure attachment (Bifulco et al., 2006), and stressful life events are most likely to activate habitual arousal management strategies; so perhaps seeking professional care is one strategy utilized by less secure individuals to manage arousal from stressful situations. Among 701 women enrolled in an HMO, those with high

attachment anxiety had the highest number of primary care visits compared to all other attachment patterns, controlling for age, marital status, income, ethnicity, and depression. These women also had the highest overall primary care utilization and costs (Ciechanowski, Walker et al., 2002). Fearfully attached and preoccupied women reported the highest degree of physical symptoms, but fearful women also had the lowest primary care utilization and costs, as might be expected from patterns seen in avoidant people. The authors suggest that fearful women's attachment disorganization makes them less likely to consistently engage in any form of health care over time (Ciechanowski, Walker et al., 2002). Ciechanowski, Sullivan, Jensen, Romano, and Summers (2003) found similar results among a sample of chronic pain patients. Even post-treatment, high-anxiety patients showed higher health care utilization for pain-related issues than patients with other attachment qualities. Health care utilization is a current topic of political importance (Hixon, 2012), with preventive care preferred to mitigate many diseases but over-utilization viewed as a societal burden and a contributor to high overall health care costs. Perhaps as the research in this area expands, health care utilization can be better understood based on individuals' attachment history and the coping behaviors they have developed.

Gender Differences

Surprisingly, a large proportion of studies examining attachment patterns and somatic complaining have primarily studied women. Whether women have been more forthcoming as test participants or whether gender-specific patterns of illness and attachment have made them a more productive group to study remains to be seen. A few studies have identified differences between genders in the behaviors of interest. In their sample of medical patients, Russo, Katon, Sullivan, Clark, and Buchwald (1994) found that women presented with more somatic symptoms than men. Gender differences were noted by Diamond and colleagues (2006) in line with past

observations that women tend to ruminate more than men on negative emotions from relational contexts. Their study showed that women high in avoidance showed more physiological distress in their efforts to inhibit their emotions than did avoidant men. Feeney (1999) suggests that women's greater negative outcomes in dysfunctional interpersonal contexts may be the result of gender role stereotypes. She notes that women are expected to be more focused on closeness, thus more anxious, and men are expected to be uncomfortable with intimacy or help-seeking. Shumaker and Hill (1991) support this perspective with their findings that women are more likely to develop and maintain social networks, provide social support to network members, and experience negative emotional consequences as a result of others' negative outcomes. This tendency was named "tend and befriend" by Taylor (2002), who suggests that women's relational awareness is the result of thousands of years of gendered human development. Wanic and Kulik (2011) posit that women suffer more in the context of relational distress because of a socially constructed power differential in which the woman is viewed as subordinate to the man.

These socially condoned relationship positions of female relationship tending and male self-reliance may over time grow more extreme, leading to a stereotypical anxious woman-avoidant man relationship in which the woman manifests somatic symptoms as a means of gaining support from a distant male partner (Feeney, 1999). A daily diary study of couples supports this view, showing that women were more likely to seek reassurance on a daily basis from their romantic partner, regardless of attachment quality, whereas men's daily reassurance seeking occurred only in the context of attachment anxiety (Shaver, Schnachner, & Mikulincer, 2005). Our study examines both partners in committed heterosexual relationships, providing ample opportunity to detect gender differences in attachment-related physical symptoms.

Inter-partner Health Effects

This review found very little research concerning inter-partner effects of attachment quality on health. The most compelling study imposed pain on women using a tourniquet in the presence of their romantic partner (Wilson & Ruben, 2011). As might be expected, women with higher avoidance scores showed higher pain tolerances on average, while women with higher anxiety scores had, on average, lower pain thresholds. The most compelling result was that high-avoidance women who were paired with low-anxiety men showed extremely high pain tolerances, yet high-avoidance women paired with high-anxiety men showed substantially lower pain tolerances. In contrast to the high-avoidance women, secure women had higher pain tolerances when partnered with high-anxiety men, yet lower pain tolerances with partnered with low-anxiety men (Wilson & Ruben, 2011). These findings show that one partner's attachment quality can influence how the other partner experiences pain.

It is possible that insecure partners engage in more extreme attachment-related behaviors resulting in greater impact on their partners' well-being. Although not studied in an attachment context, partner behaviors during times of disease or distress have been shown to affect patient outcomes (See Keefe, Porter, & Labban, 2006 for a complete review). Rheumatoid arthritis patients with either more positive spousal interaction or less spouse criticism showed less disease activity than those patients whose spouses were only supportive during disease flare-ups (Zautra et al., 1998). Other diseases such as osteoarthritis, heart disease, and cancer have all been shown to be less painful or dangerous in the presence of social support or marital adjustment (Keefe et al., 1997; Keefe et al., 2006; Kiecolt-Glaser & Newton, 2001; Smith, Keefe, Caldwell, Romano, & Baucom, 2004). What is yet to be understood is whether having a partner with a high level of

attachment anxiety or avoidance might predict development of one's own physical symptoms, especially among couples experiencing higher relational distress.

Just as habitual strategies for managing arousal seem to affect one's own health, so too might the daily process of dealing with the maladaptive coping strategies of a romantic partner. Additionally, one partner's avoidance might be exacerbated by the other partner's anxiety, and vice versa, potentially amplifying negative health effects of the partner's own insecurity in the context of a conflictual relationship. Carmichael and Reis (2005) found no crossover effects from one spouse's attachment quality to the other spouse's sleep quality or depression, but high levels of anxiety in each spouse predicted their own poorer sleep quality and higher depression. The authors suggest that this may be a function of daily worry about spousal unavailability spilling over into sleep quality (Carmichael & Reis, 2005). We will examine whether such effects exist with physical symptoms as well or if physical health is more susceptible than sleep to influence from a partner's attachment insecurity. This potential cross-over effect from one partner's attachment quality to the other partner's health deserves further examination to clarify and enrich the attachment and pain literature.

Couple Configuration

Another facet of the study of couple attachment and health that begs further study is investigation of differences by couple attachment configuration. Since a couple is made of two individuals, each brings his or her own attachment quality to the relationship. These similar or differing qualities have the potential to interact in the context of couple distress. One study examining whether couple attachment configuration predicts marital satisfaction found that dual-secure couples were more satisfied on average than dual fearful or mixed anxious-avoidant couples (Ben-Ari & Lavee, 2005), but this study did not examine mixed secure-insecure couples.

Senchak and Leonard (1992) did assess configurations including secure-insecure couples and found again that dual-secure couples had better marital adjustment, whereas any configuration containing an insecure spouse was less well adjusted. Barse (2004) suggests that when considering couple configuration, a fundamental distinction exists between security and insecurity in partners, with insecurity then divisible into anxious, avoidant, or disorganized sub-qualities. However, no consistent method for determining individuals' security status has been established. Interestingly, wives' marital satisfaction in couples with a dismissing husband was higher when both partners showed above-median levels of avoidance or anxiety than in couples with a security mismatch. Husbands' marital satisfaction was predicted when the wife was secure and the husband was either secure or dismissing (Barse, 2004). Couples presenting for therapy most likely experience low marital satisfaction, perhaps in part due to their attachment configuration. We are unaware of any studies that expand the study of couple configuration effects to partners' health. Our study will make this link, examining whether matched or unmatched attachment security couples experience physical symptoms differently.

Couples in Therapy

The majority of the research reviewed above was conducted with either medical patients with various diseases or relatively healthy individuals in the general population. Findings from these samples indicate an association between attachment and physical symptoms, and the possibility of a crossover effect in partner relationships. Couples in therapy present another meaningful population for studying attachment and symptom presentation. For couples undergoing relational therapy, distress is often high and levels of social support and marital adjustment are often low, creating the possibility for insecure attachment to influence both the individuals' and their partners' physical symptoms (Gick & Sirois, 2010; Hazan & Shaver, 1994;

Keicolt-Glaser & Newton, 2001). Couples in therapy provide a unique opportunity to study attachment qualities in a context when they are most likely activated: periods of high relationship distress. If habitual use of hyperactivation or deactivation strategies affects health, couples in enough distress to seek therapy will likely be experiencing the effects of such repeated maladaptive coping in their relationship.

Couples present for therapy for a variety of reasons, including unhappiness with the relationship, pre-marital counseling, infidelity, child-rearing, problems with trust, financial disagreements, and sexual dissatisfaction (Doss, Atkins, & Christensen, 2003). Gender differences are often present in the initial stages of therapy, with women usually being more active in seeking treatment than are men (Doss, Simpson, & Christensen, 2004). However, once therapy is undertaken, there are no discernible differences between genders for therapy efficacy (Moynihan & Adams, 2007). Higher relationship distress is often related to more severe presenting problems such as physical aggression or sexual difficulty (Snyder, Castellani, & Whisman, 2006), but many couples present with more long-standing complaints of general dissatisfaction (Doss et al., 2004). Shaver et al. (2005) found that across sex, poor relationship quality could be most strongly predicted for the self and the partner when a person displays a high level of attachment avoidance. Likewise, high anxiety can have a negative effect on relationship quality because the anxious partner is never satisfied with the care received (Gick & Sirois, 2010; Snyder et al., 2006).

Most models of therapy view clients' understanding and revising of their habitual ways of interacting as primary goals of treatment (Bowlby, 1988; Davila & Levy, 2006; Dozier & Bates, 2004). Therapists can more readily facilitate this understanding if they also have an understanding of the clients' enduring arousal management strategies and how they affect

individual and relationship functioning (Lopez & Brennan, 2000). The present study aims to further knowledge in this field by explicating associations between health and attachment avoidance and anxiety in couples seeking therapy. If such associations are found, this knowledge may help therapists gain a richer, more useful awareness of a couple's configuration, symptoms, and functioning that can facilitate meaningful change.

METHOD

Participants

Intake assessments were collected from 233 heterosexual couples presenting for couple therapy at a university-based marriage and family therapy clinic between the years 2000 and 2006. Of these, 217 couples ($N = 434$) had at least one partner complete the ECR; these couples comprise the study sample. Around 80% of participants self-identified as European American, 14% identified as African American, 2% Hispanic, 2% Asian, and 2% other. The age distribution of participants was somewhat skewed toward younger adults within a range from 18 to 59 years. The mean age for women was 30 ($SD = 8$), but one fourth of female participants were 23 or younger. Similarly, the mean age for men was 32 ($SD = 8.5$), but one fourth of men were younger than 25. This higher frequency of young adult participants is most likely due to the college campus setting of the therapy center.

Measures

Participants completed the Experiences in Close Relationships (ECR) (Brennan et al., 1998), a 36-item self-report measure of adult attachment quality. Items such as, "Just when my partner starts to get close to me I find myself pulling away," measure attachment avoidance ($\alpha = .94$), and items such as, "I often wish that my partner's feelings for me were as strong as my feelings for him/her," measure attachment anxiety ($\alpha = .91$). Participants indicate their agreement

with such statements on a seven-point Likert scale from “Disagree Strongly” to “Agree Strongly.” Items on the avoidance and anxiety subscales were used separately to create two average scale scores such that higher scores on anxiety indicate higher levels of anxiety and higher scores on avoidance indicate higher levels of attachment avoidance.

Health outcomes were assessed using the Outcome Questionnaire-45.2 (OQ-45.2; Lambert et al., 2004). Six questions within the 45-question measure specifically address physiological symptoms: “I tire quickly,” “I feel weak,” “I have an upset stomach,” “My heart pounds too much,” “I have sore muscles,” and “I have headaches.” Frequency of these symptoms was measured on a 5-point Likert scale from “Never” to “Almost Always.” Only the physical symptoms from the OQ were examined, as they are the outcome of interest to this study. The reliabilities for the physical symptoms items for males ($\alpha = .71$) and females ($\alpha = .74$) were adequate. Including male and female partners’ self reports of attachment pattern and health symptoms allowed us to determine how a partner’s perception of their own physical symptoms is influenced by their own and their partner’s attachment quality. Since the perception of physical symptoms is most likely to drive help-seeking and health care behaviors, self report was deemed a useful means of outcome measurement.

Analytic Strategy

Univariate and bivariate statistics were obtained using SAS software, version 9.2. We estimated alphas for the six physical symptom items separately for men and women to create two latent variables, “male physical symptoms” and “female physical symptoms.” Because of the linked data (couples), we fit the male and female measurement models for physical symptoms simultaneously in MPlus (Version 6; Muthen & Muthen, 1998-2010). Then, again linking male and female in one model, we fit our hypothesized model with the latent variable for physical

symptoms for females regressed on their ECR anxiety and ECR avoidance scores, and similarly for the males. In addition, the females' latent variable for physical symptoms was regressed on her partner's ECR anxiety and avoidance scores, and similarly for the males.

Missing data were not imputed; rather, available data from all 217 couples were used in analyses by using full information maximum likelihood (FIML) estimation with robust standard errors. FIML estimation is one of the best methods of dealing with missing data (Acock, 2005). Model fit was assessed by a χ^2 statistic/degrees of freedom ratio less than 5 and a RMSEA less than .10 (Wheaton et al., 1977).

Couples were divided into groups by attachment security configuration. A participant was designated as highly anxious or avoidant (insecure) if he or she scored at or above the 75th percentile of attachment anxiety and/or avoidance on the ECR. If a participant did not meet this criterion, he or she was designated low on that particular dimension (secure). Three studies have reported varying proportions of security and insecurity among couples in large samples. Mickelson, Kessler, and Shaver (1997) determined that 61% of participants were securely attached. Eighty-two percent of Senchak and Leonard's participants met their requirements for security, and Banse classified 72% of his coupled sample as secure. In light of these differing classifications and a dearth of guidelines for classifying scores on the ECR, we chose the 75th percentile as the barrier between security and insecurity. In most cases, the 75th percentile of anxiety or avoidance was nearly one standard deviation above the mean on that measure, and use of a percentile score allows uniformity of meaning across scales and genders.

Each couple was grouped by the security or insecurity of each partner into four groups: male secure-female secure (MSFS), male secure-female insecure (MSFI), male insecure-female secure (MIFS), and male insecure-female insecure. The moderation of the effects of anxiety and

avoidance on physical symptoms by types of couples was tested by fitting the previous model (with direct and cross-over effects) across these 4 groups; a more sophisticated MANOVA.

Controls

Couples' years in the relationship were controlled in the models so that those participants who had been experiencing their partner's attachment quality for longer periods of time did not overly influence the regression, or vice versa. Participants' race was controlled, due to previous research indicating less protective effects of marriage on African Americans' health compared to that of European Americans (Bryant et al., 2010; Wickrama, Surjadi, & Bryant, 2011). Participants' age was controlled because health typically declines with increased age (Pienta, Hayward, & Jenkins, 2000). Income was controlled to insure that measured variability was due to attachment quality, rather than SES.

RESULTS

Univariate and Bivariate Analyses

Means and standard deviations for predictors (male and female anxiety and avoidance), controls (male and female age, income, race, and years in relationship) and outcomes (six physical symptoms from OQ) were examined for normality and bivariate linearity and are shown for the whole sample and by couple configuration in Table 1. Correlations of all the variables are presented in Table 2.

Path Analyses

Models for male and female partners' anxiety and avoidance and physical symptoms were fit simultaneously in the same model to account for the non-independence of the data. Mplus allows for the inclusion of participants with missing data by using parameter estimates based on available data. The greatest loss of coverage was among control variables (58%

coverage for male years in relationship, 69% coverage for female years in relationship, 79% coverage for female age), but among predictor and outcome variables, coverage ranged from 89% to 95%, within the suggested coverage range (Muthén & Muthén, 1998).

The measurement model for the latent variables of physical symptoms for males and females fit well ($\chi^2/df = 2.00$, RMSEA = .06, $p = .06$). The loadings for males ranged from .37 to .67 and for females from .52 to .62. In addition, although the reliabilities of each observed variable are low individually, taken together the overall reliability of each construct is approximately .80 (Willet, 1989). See Figure 1 and Figure 2 for the configurations of these two outcome latent constructs for physical symptoms.

The path model that answered our first question fit well in the overall sample ($\chi^2/df = 1.67$, RMSEA = .06, $p = .18$, CFI = .77) and results are presented in Figure 3. For clarity, correlations and non-significant pathways were removed from the path models. Participants' age, race, income, and years in the relationship were all controlled in the model by allowing them to predict avoidance and anxiety for both males and females. In the following discussion of results, all findings are controlled for all else in the model.

In the full-sample direct and crossover effects model, female avoidance predicted female physical symptoms ($\beta = .19$, $r = .36$, $p < .001$), as did female anxiety ($\beta = .14$, $r = .31$, $p < .001$). Males showed a similar pattern with male avoidance predicting male physical symptoms ($\beta = .08$, $r = .17$, $p < .05$) and male anxiety also predicting male physical symptoms ($\beta = .14$, $r = .41$, $p < .05$). Crossover effects were noted for anxiety, but only for women. Female anxiety was significantly related to male physical symptoms ($\beta = .07$, $r = .18$, $p < .05$). These results indicate that on average, among couples, higher levels of an individual's attachment anxiety or avoidance predict higher incidence of physical symptoms in him or herself. In addition, on average, the

female partner's higher level of attachment anxiety is also related to higher incidence of physical symptoms in her male partner. A good amount of the variability in male and female symptoms is predicted by attachment quality (male: $R^2 = .26$, female: $R^2 = .23$).

The multiple group model tested the moderation of paths by different attachment security configurations of couples. Results are presented in Figure 4. Variable coverage across groups was similar to that of the overall sample and ranged from 55% to 96%. Model fit was sufficient ($X^2/df = 2.54$, $RMSEA = .17$, $p = .00$, $CFI = .15$). The results show that different pairings experience the association between avoidance or anxiety and physical symptoms differently. Female anxiety is significantly related to female physical symptoms ($\beta = .17$, $r = .32$, $p < .05$) only among dual-secure couples. Female avoidance is marginally related to female physical symptoms, but only when the female is insecure (MSFI: $\beta = .15$, $r = .30$, $p < .10$; MIFI: $\beta = .20$, $r = .44$, $p < .10$). Likewise, male anxiety is significantly related to male physical symptoms only when the male is insecure (MIFS: $\beta = .21$, $r = .53$, $p < .05$; MIFI: $\beta = .27$, $r = .60$, $p < .01$). Male avoidance, on the other hand, only affects male physical symptoms when the female is secure (MSFS: $\beta = .16$, $r = .33$, $p < .05$; MIFS: $\beta = .23$, $r = .50$, $p < .05$). Crossover effects were noted in the male secure-female insecure configuration, with male avoidance marginally significant in predicting female physical symptoms ($\beta = .27$, $r = .30$, $p = .10$).

The amount of variability predicted by attachment quality also differed by couple configuration. For males, almost half of the variability in physical symptoms (PS) could be predicted by attachment quality when the male was insecure but the female was secure ($R^2_{\text{Male PS}} = .48$). A good deal of males' symptom variability could also be predicted among dual-insecure couples ($R^2_{\text{Male PS}} = .39$), but in couple configurations where the male was secure, much less variability could be predicted from attachment (MSFS: $R^2_{\text{Male PS}} = .12$; MSFI: $R^2_{\text{Male PS}} = .11$).

Females showed a similar pattern, with attachment quality predicting the most variability in female physical symptoms when the female is insecurely attached (MSFS: $R^2_{\text{Female PS}} = .15$; MSFI: $R^2_{\text{Female PS}} = .25$; MIFS: $R^2_{\text{Female PS}} = .08$; MIFI: $R^2_{\text{Female PS}} = .29$).

Overall, the results of the multiple group model indicate that, on average, among dually-secure couples, female anxiety predicts female symptoms and male avoidance predicts male symptoms. Among couples with a securely attached male and an insecurely attached female, both female and male avoidance are associated with female physical symptoms. In insecure male-secure female pairings, both male anxiety and avoidance predict male physical symptoms. Among dual-insecure couples, female avoidance predicts female symptoms and male anxiety predicts male symptoms. The predictive power of attachment quality's effect on physical symptoms was strongest when the individual reporting the symptoms was insecurely attached.

DISCUSSION

The present study represents the first efforts at expanding the attachment and health literature to examine distressed couples, crossover effects of avoidance and anxiety to partner's symptom reporting, and consideration of couples' security status. The observed results are theoretically meaningful, supporting established links between avoidance, anxiety, and symptoms, yet providing a more complex and socially-shaped understanding of these links in couple relationships. Among couples presenting for therapy, high levels of avoidance or anxiety in the individuals predict reporting high levels of their own physical symptoms. This supports previous findings by Sadava et al. (2009). However, these effects differ when couples are grouped into configurations of secure and insecure partners. Females with high anxiety who have secure male partners report high levels of their own physical symptoms, but only when those females are secure. Perhaps these women feel comfortable acknowledging their physical

symptoms because their partners will be supportive. It is also possible that symptom reporting is a means for these secure women to convey distress from relational difficulties serious enough to prompt couple therapy. This possibility is underscored by Ciechanowski, Walker et al.'s (2002) assertion that anxiety-driven strategies seek to employ others in the service of regulating one's own arousal. Thus, symptom reporting could be used by these women as supporting evidence to their partner or the therapist that something is truly awry in the relationship between secure partners.

Males with high avoidance also report more of their own physical symptoms, only when their female partner is secure. These effects may exist for the same reasons described above, or perhaps males' high avoidance exerts a unique effect. The male may be secure or insecure, but some consequence of avoiding intimacy with a secure partner contributes to the manifestation of his own physical symptoms. This fits with Maunder et al.'s (2000) hypothesis and Diamond et al.'s (2006) assertion that avoiding seeking support and repressing cognitions of distress keeps the stress-regulation system at a constant level of high arousal, which can eventually lead to illness.

These findings are quite compelling in light of Feeney's (1999) observation that typically women are more anxious and men more avoidant as a result of social stereotypes about gender and relationships. Females often are socialized to be more responsible for relationships and thus more anxious about emotional closeness, whereas males often are raised to avoid expressing needs and vulnerabilities (Shumaker & Hill, 1991; Taylor, 2002). Interestingly, when individuals in secure couples exhibit higher levels of these socially endorsed attachment patterns (female anxiety and male avoidance), they report higher levels of physical symptoms. Attachment security itself does not appear to be protective against physical symptoms when couples exhibit

gender-traditional anxiety and avoidance patterns. Though the avoidance and anxiety in both partners fail to reach high enough levels to qualify as insecure, avoidance and anxiety levels vary enough to show that even when both partners are secure, it is possible that low to moderate levels of female hyperactivation and male deactivation over a long period of time can build up negative arousal to the point of affecting one's own health.

The only crossover effect noted when couple configuration is considered is from a secure male's high levels of avoidance to his insecure female partner's high physical symptoms, or vice versa. In couples, if a secure man shows high levels of avoidance in relation to his insecure female partner, the female will, on average, report more of her own physical symptoms. This finding follows Carmichael and Reis' (2005) reasoning that consistent partner unavailability can lead to symptomatology, particularly for an insecurely attached individual. These insecure women may be catastrophizing their symptoms to induce caretaking from men who don't show support to their preferred degree, or these women may actually experience higher levels of physical symptoms resulting from feelings of distance and rejection from their partners. As shown by the R^2 statistics, insecure individuals' symptoms are more affected by anxiety and avoidance than those of secure individuals, so it makes sense that these insecure women would be more heavily influenced by their secure partners' avoidant qualities.

In contrast to the above attachment patterns, high levels of female avoidance and high levels of male anxiety are two less socially acceptable qualities. Perhaps then it is not particularly surprising that these patterns influence physical symptom reporting when the individual is insecure. Insecure females with high avoidance and insecure males with high anxiety report high levels of their own physical symptoms, regardless of their partner's attachment security. Perhaps displaying a less conventional attachment pattern so extremely to be classified as insecure

contributes to symptomatology as a result of added societal stress, less consistent social support in times of vulnerability, increased rejection, or even more severe levels of arousal dysregulation.

Insecure attachment does appear to influence the predictive power of avoidance and anxiety on physical symptoms. The R^2 statistics of the multiple group model indicate that a greater proportion of physical symptom manifestation can be predicted by avoidance or anxiety when the participant reporting symptoms is insecurely attached. Thus, if an individual shows high enough anxiety and/or avoidance to be designated insecure, those high anxiety and avoidance levels will have a bigger effect on that individual's symptom reporting than if the individual were secure. These findings fit with previous findings regarding insecure individuals' catastrophizing, negative perceptions of social support, and higher symptom reporting (Kidd & Sheffield, 2005; Meredith et al., 2006a; Mikulincer & Florian, 1998).

Our distinctive study of crossover effects showed that one partner's attachment quality can affect the other partner's physical symptom reporting. Among couples in therapy, males report higher frequencies of physical symptoms when they are in relationships with females high in anxiety. It is possible to infer that being in a relationship with a woman who is highly anxious could raise daily stress and arousal levels, leading to physical symptom development. When couple configuration is accounted for, secure males who show high avoidance paired with insecure females have an influence on their female partner's physical symptoms such that high levels of male avoidance predict high levels of female symptomatology. Though these findings are somewhat modest, they do show that crossover can exist and they are, to our knowledge, the first to examine such associations. That crossover effects between partners were observed suggests the need for further study of attachment crossover effects in couples.

Strengths and Limitations

Our study was among the first to examine crossover effects of partners' anxiety and avoidance levels on physical symptoms as well as testing associations between anxiety and avoidance and these physical symptoms by couple configuration. These examinations are certainly novel among populations of couples in therapy. More intricate understandings could be obtained by testing for moderation effects by such factors as perceived relationship distress and health habits, but such assessments were unavailable to us for analysis. This line of inquiry is only just beginning to be explored, and further study is warranted. Longitudinal designs could test effects of changing levels of anxiety and avoidance over the course of therapy on physical symptoms, and comparative population studies could examine differences between couples presenting for therapy and couples in the general population. Another expansion of this research would be to replicate this study with homosexual couples, who experience gender role stereotypes differently than do heterosexuals (Landolt, Bartholomew, Saffre, Oram, & Perlman, 2004). It is possible that the effects of homosexuals' anxiety and avoidance on reporting of physical symptoms are different than the socially shaped associations we found for heterosexuals.

The outcome variable "physical symptoms" was based on self-reports of experiencing symptoms rather than any medically-validated measure. However, it could be argued that an individual's perception of his or her own symptomatology is a more useful measure than actual physiological phenomena because the perceptions would be more likely to influence healthcare seeking and relationship behavior. The effects of medication usage were uncontrolled, leaving open possibilities of reported symptoms being the result of drug side effects or reportable symptoms being muted by medication use and thus underreported.

Finally, we did not include any means of testing or controlling for hypochondriasis, a mental disorder in which individuals falsely perceive themselves to have multiple physical ailments (DSM-IV TR, American Psychiatric Association, 2000). It is possible that higher reports of physical symptoms based on attachment avoidance or anxiety could reach an extreme degree whereby an individual develops hypochondriasis. Some evidence has been found that hypochondriasis is also related to attachment quality, specifically disorganized (fearful) type (Noyes et al., 2003). Hypochondriacs show other traits such as neuroticism, social inhibition, and self-sacrificing tendencies. We did not have a means to control for these traits in order to separate participants with hypochondriasis from those without in our analyses. It is possible that results may have been skewed if any diagnosable hypochondriacs were included in the sample, but since Noyes and colleagues (2003) demonstrated the association between hypochondriasis and attachment quality, this disorder appears to include a more extreme manifestation of the effects presented in this study.

Despite the above limitations, our study offers an important addition to the existing knowledge of attachment anxiety and avoidance levels and health. Our study of couples provides a meaningful context for examining the effects of adult attachment. If an adult's most common attachment figure is his or her romantic partner (Cicirelli, 2010), then the most meaningful context in which to study the effects of adult attachment quality is within the couple relationship. Couples in therapy provide an even richer picture, due to their higher distress levels and resulting increased arousal. Studying couples in therapy also allowed us to examine linked data for couple configuration effects, a new consideration in the attachment and health literature.

Implications

These findings offer therapists and health care providers a richer understanding of associations between individuals' attachment anxiety and avoidance and their physical symptom reporting. While not diagnostic in any manner, higher prevalence of physical symptoms could inform a therapist's conception of a couple's habitual interaction pattern. Symptomatology could also be used as supporting evidence to individuals displaying high levels of avoidance in therapy that the negative arousal of their relationship is affecting them in a real way. Health care practitioners who note tendencies of somatization or emotional repression in patients may use this awareness of attachment security and couple configuration in discerning antecedents and treatments of physical symptoms. In addition to the yet unknown range of clinical applications, the current study adds to the current body of knowledge, specifically regarding crossover and couple configuration effects.

CONCLUSION

We examined the associations between attachment qualities of couples presenting for therapy and partner's reported physical symptoms. Overall, higher levels of anxiety or avoidance predict higher levels of symptom reporting from an individual. These effects vary somewhat when couple attachment security configuration is taken into consideration. The more gender-traditional attachment patterns of female anxiety and male avoidance show effects of these qualities on their own physical symptoms only among secure individuals, whereas female avoidance and male anxiety show associations with their own physical symptoms only among insecure individuals. Crossover effects were noted for male avoidance predicting female symptoms in male secure-female insecure pairings. These results show that attachment anxiety

and avoidance do have an impact on reporting of physical symptoms for couples in therapy and that these effects can cross over from one partner to the other.

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Appendix

Table 1

Means and Standard Deviations of Predictors, Controls, and Outcomes by Full Sample and Couple Configuration

Variable	All		MSFS		MSFI		MIFS		MIFI	
	N = 434		n = 160		n = 98		n = 88		n = 88	
	M	SD	M	SD	M	SD	M	SD	M	SD
M Avoid	2.70	1.00	2.14	.66	2.48	.62	3.25	1.08	3.31	1.08
M Anxiety	3.69	1.38	2.85	1.08	3.36	1.04	4.58	1.26	4.57	1.24
F Avoid	2.81	1.06	2.17	.65	3.47	1.16	2.51	.65	3.44	1.03
F Anxiety	4.04	1.20	3.36	.87	4.79	1.01	3.55	.86	4.78	1.25
F Tire	2.03	.96	1.79	.96	2.28	.97	1.85	.74	2.38	.96
F Weak	1.56	1.04	1.25	.98	1.96	1.00	1.31	.99	1.95	.99
F Stomach	1.80	1.11	1.53	1.11	1.94	1.13	1.49	1.04	2.38	.94
F Heart	1.27	1.13	.94	.99	1.49	1.02	1.03	1.15	1.83	1.27
F Sore	1.42	1.16	1.26	1.17	1.58	.94	1.26	1.09	1.63	1.34
F Headache	2.14	1.19	1.79	1.15	2.55	1.09	1.57	1.09	2.69	1.07
M Tire	1.61	.96	1.37	.89	1.60	.90	1.73	.99	1.90	1.03
M Weak	1.20	1.01	.75	.84	1.33	.92	1.60	1.08	1.45	.97
M Stomach	1.39	1.09	1.05	.93	1.31	1.03	1.63	1.23	1.80	1.04
M Heart	.95	1.09	.53	.89	1.18	1.00	1.23	1.11	1.15	1.20
M Sore	1.45	1.29	1.09	1.05	1.41	1.02	1.68	1.02	1.90	1.30
M Headache	1.46	1.07	1.21	1.03	1.65	.98	1.38	1.00	1.93	1.11
M Age	31.8	8.50	29.4	7.54	30.0	7.33	35.6	9.90	33.4	7.96
F Age	29.5	8.07	28.3	7.70	29.1	7.55	32.6	10.1	29.8	7.26
M Income	5.48	2.82	5.78	2.86	5.81	2.69	6.06	2.70	4.19	2.68
F Income	5.39	2.88	5.66	3.00	5.97	2.52	5.54	2.99	4.23	2.74
M Euro Am	.60	.49	.60	.49	.59	.50	.64	.49	.57	.50
F Euro Am	.60	.49	.65	.48	.63	.49	.48	.51	.61	.49
M Years	7.22	6.78	5.98	5.11	7.02	6.51	8.96	9.19	7.80	6.87
F Years	7.24	6.47	6.18	5.54	7.34	6.14	7.30	7.62	8.65	7.08

Note. MSFS = Male Secure, Female Secure; MSFI = Male Secure, Female Insecure; MIFS = Male Insecure, Female Secure; MIFI = Male Insecure, Female Insecure.

Table 2

Correlation Matrix of Attachment Quality, Physical Symptoms, and Demographic Characteristics (N =434)

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	
1. M Avoidance	--																							
2. M Anxiety	.11	--																						
3. F Avoidance	.02	.36***	--																					
4. F Anxiety	.41***	-.02	.11~	--																				
5. F Tire	.07	.04	.19**	.16*	--																			
6. F Weak	.15*	.06	.31***	.29***	.48***	--																		
7. F Stomach	.03	.13~	.26***	.16*	.22**	.23**	--																	
8. F Heart	.16*	.09	.25***	.25***	.27***	.38***	.38***	--																
9. F Sore	-.02	.08	.14*	.05	.38***	.37***	.31***	.32***	--															
10. F Headache	.03	.15*	.22**	.25***	.31***	.25***	.40***	.36***	.28***	--														
11. M Tire	.09	.23**	.07	.06	.06	.11~	.15*	.03	-.01	.14*	--													
12. M Weak	.20**	.39***	.12~	.13~	.04	.18**	.10	.08	.04	.08	.50***	--												
13. M Stomach	.22**	.18*	.09	.26***	.05	.09	.18*	.03	-.02	.06	.21**	.26***	--											
14. M Heart	.16*	.31***	.32***	.13~	.03	.10	.03	.06	.11	.17*	.23***	.45***	.42***	--										
15. M Sore	.09	.11	.08	.10	.06	.02	.09	.04	.04	.07	.21**	.13~	.31***	.22**	--									
16. M Headache	.15*	.15*	.22**	.17*	.16*	.10	.02	.04	-.01	.03	.19**	.28***	.33***	.37***	.27***	--								
17. M Age	.14*	.20**	.19**	.02	.07	.08	.04	.16*	.04	-.01	.13~	.06	.15*	.22**	.07	.01	--							
18. F Age	.03	.06	.16*	.05	.13~	.11	.11	.15*	.03	-.01	.06	-.02	.10	.12	.00	.05	.82***	--						
19. M Income	-.01	-.09	-.11	-.13	.06	-.13	-.09	-.01	-.28**	-.11	.06	-.07	.04	-.05	.05	-.03	.32***	.29***	--					
20. F Income	-.09	-.14~	-.01	-.16*	-.01	-.10	-.14~	-.05	-.20*	-.17*	-.04	-.08	.06	-.04	-.01	.11	.27	.34***	.80***	--				
21. M Euro Am	-.09	-.01	-.01	-.01	.00	-.11	-.03	-.05	-.10	-.07	.07	-.02	-.09	-.08	-.04	.07	-.07	.02	.15~	.15~	--			
22. F Euro Am	-.12~	-.03	-.02	.03	-.01	-.06	.01	.01	-.09	-.07	-.05	-.04	-.12~	-.09	.01	.06	-.12~	.00	.09	.13~	.73***	--		
23. M Years	.14*	.05~	.13	-.01	.20*	.03	.16~	.03	-.03	-.02	.00	-.03	.11	.15~	-.05	.04	.60***	.62***	.24*	.27**	.03	-.04	--	
24. F Years	.05	.06	.17*	.00	.20*	.15~	.16*	.11	.04	.03	.00	.02	.13	.07	-.09	.01	.53***	.59***	.19*	.20*	-.02	.01	.99***	

Note. ~ $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$. For M Euro Am and F Euro Am, 1 = European American, 0 = non-European American. M Years = male years in relationship. F Years = female years in relationship.

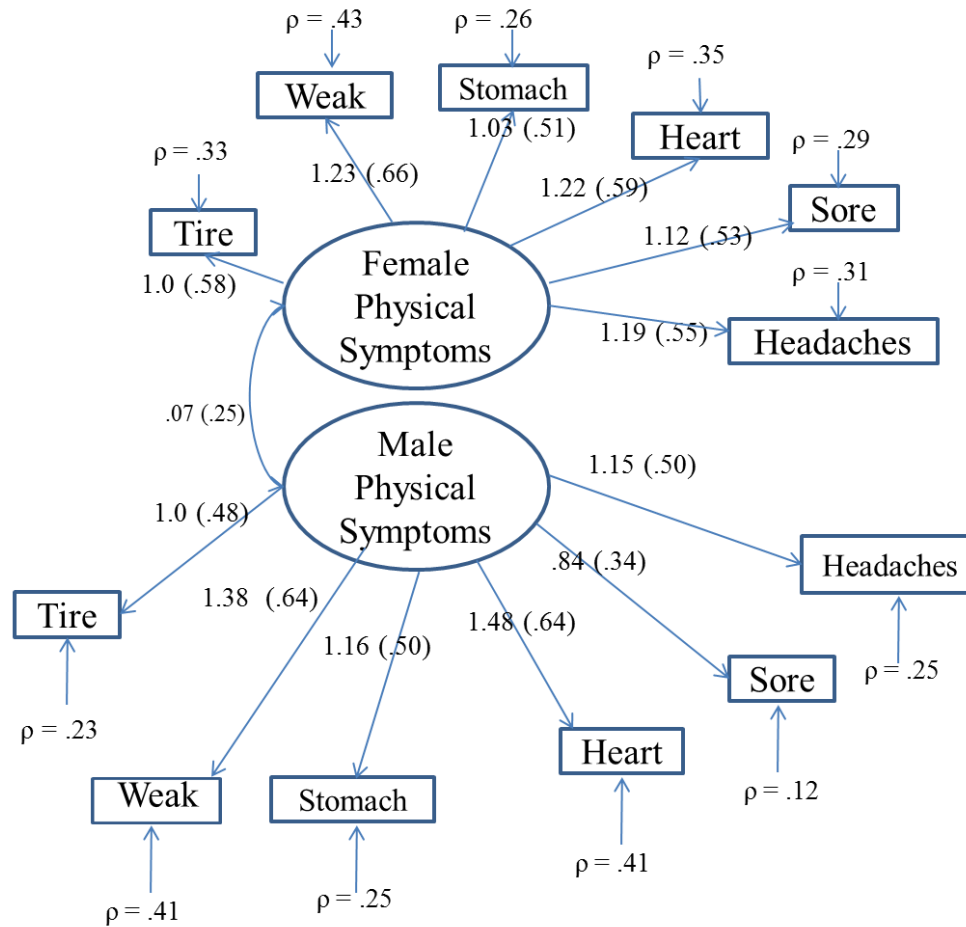


Figure 1.
Unstandardized Estimates with Standardized Estimates in Parentheses of Latent Physical Symptoms Variables on Reported Physical Symptom Variables.

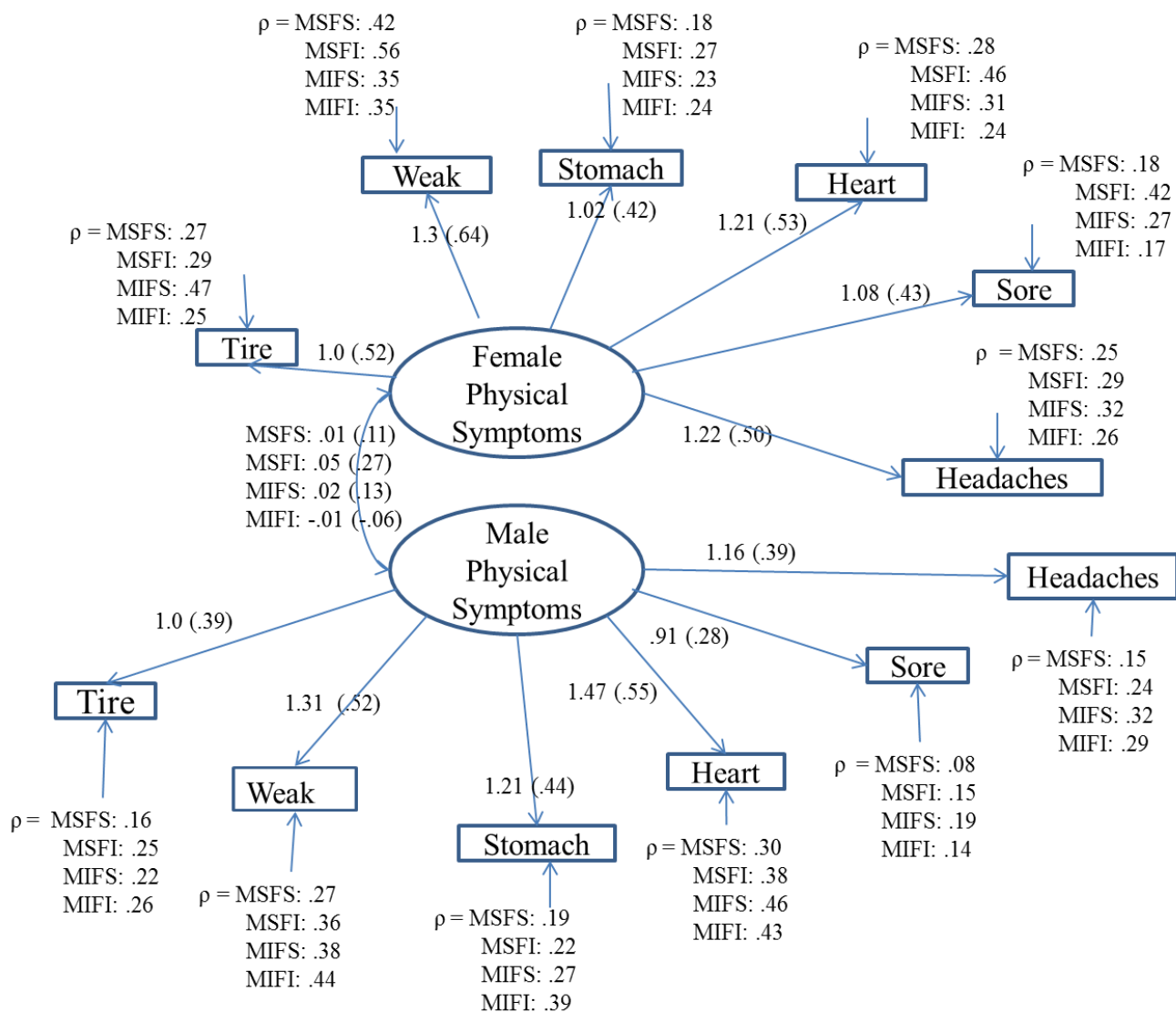


Figure 2.
 Unstandardized Estimates with Standardized Estimates in Parentheses of Latent Physical Symptoms Variables on Reported Symptoms by Couple Configuration.

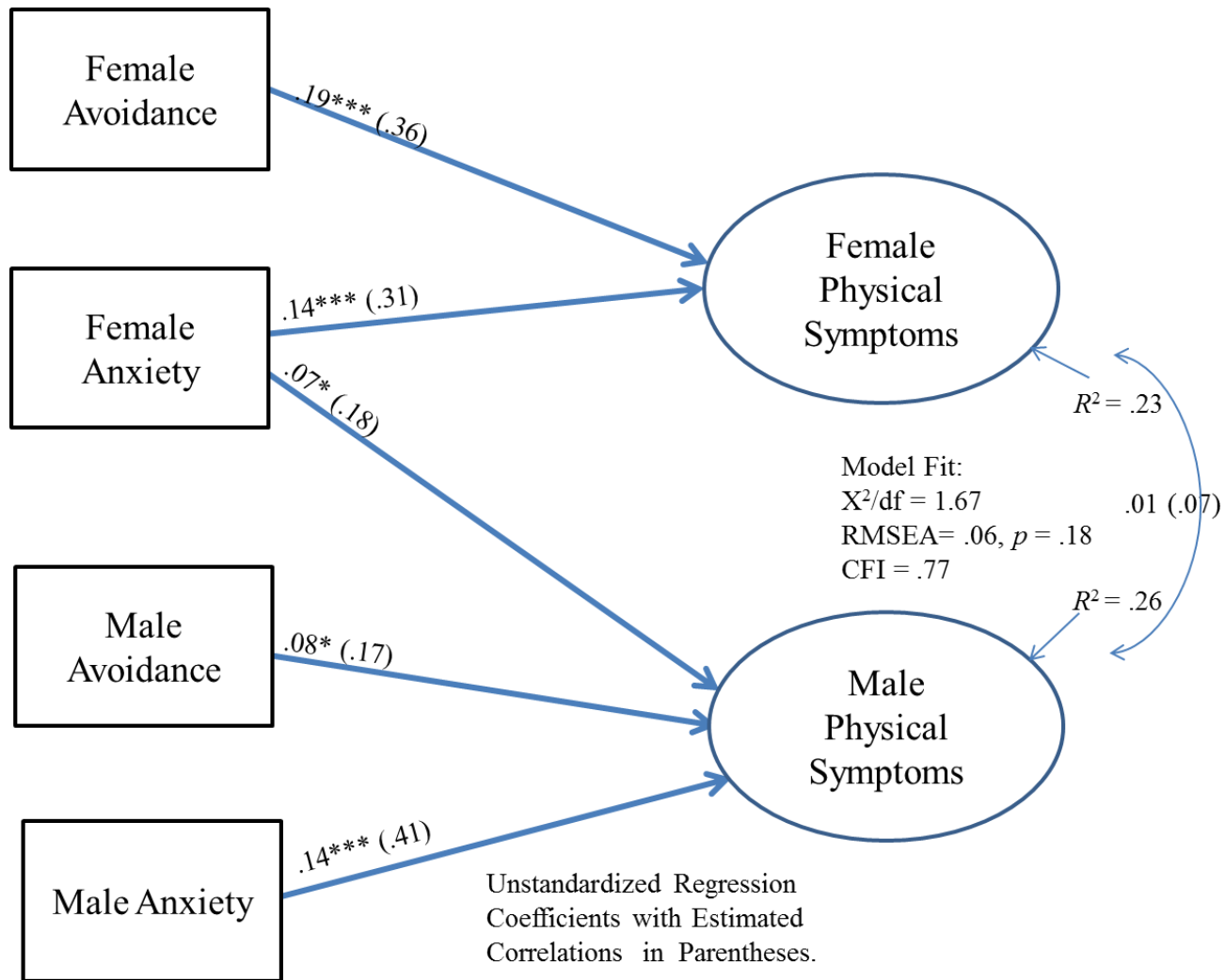


Figure 3.
 Path Model of Full-Sample Direct and Crossover Effects of Anxiety and Avoidance on Physical Symptoms

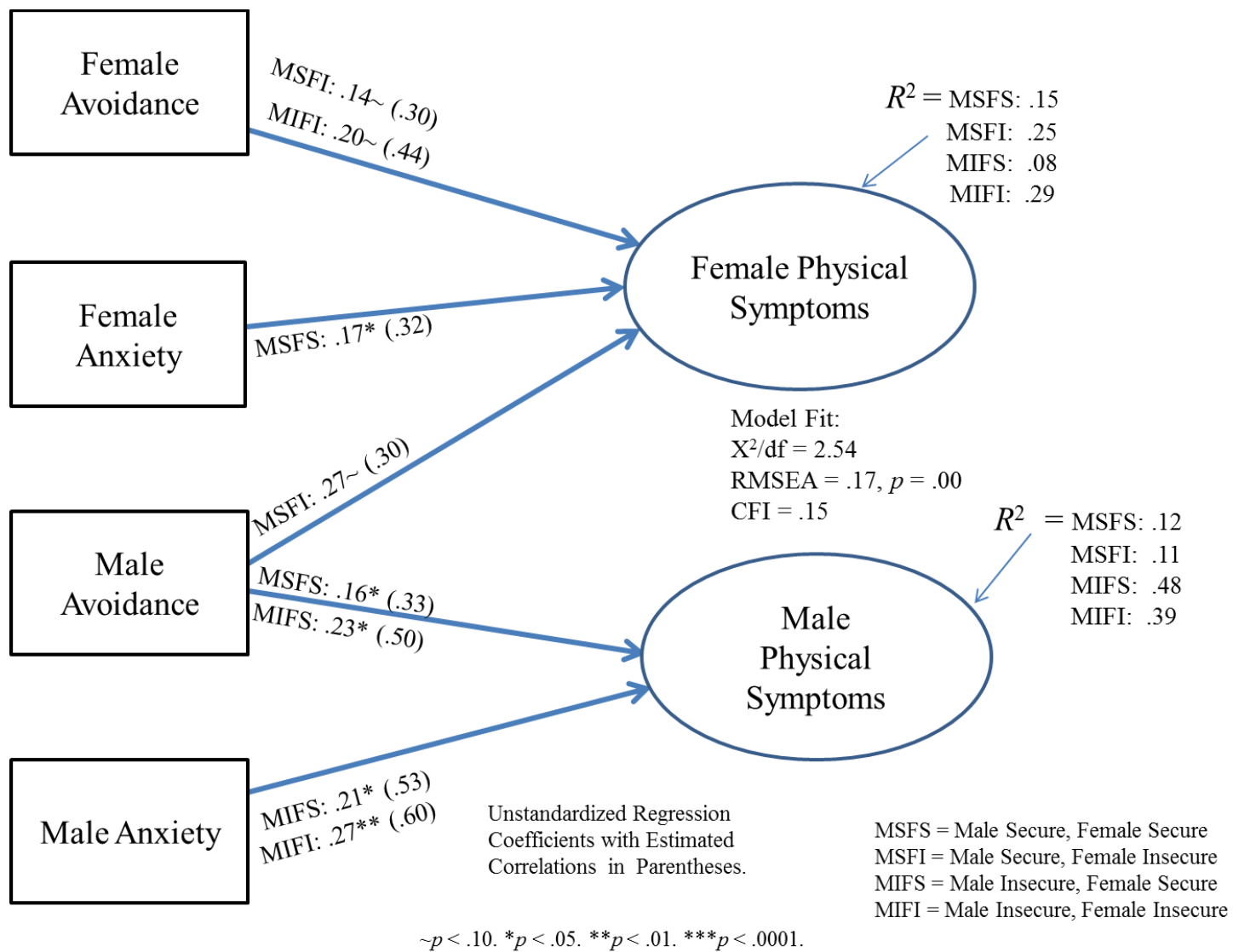


Figure 4.
Multiple Group Path Model by Couple Configuration