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Peta Stapleton

Bond University, pstaplet@bond.edu.au

Anne Woodcroft-Brown

Hannah Chatwin

Bond University, hannah_chatwin@bond.edu.au

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Understanding the Relationship Between Attachment Style, Relationship Satisfaction, Illness Behaviours, and Psychological Distress in Couples

By Peta Stapleton, PhD, Anne Woodcroft-Brown and Hannah Chatwin

Abstract

This study examined the individual and dyadic attachment processes and relationship satisfaction ratings among adults in an intimate relationship and their relationship to psychological distress and illness attitudes. Study participants included 104 individuals (52 couples) who completed a questionnaire package which included the Experiences in Close Relationships Questionnaire-Revised (ECR-R), the Dyadic Adjustment Scale (DAS), the Depression Anxiety and Stress Scale (DASS21), and the Illness Attitudes Scale (IAS). Findings from the study showed that attachment anxiety was a significant positive predictor of illness behaviors and psychological distress, that relationship satisfaction was a significant negative predictor of psychological distress, and that relationship satisfaction also partially mediated the relationship between attachment style and psychological distress among individuals in an intimate relationship. A series of One-way Analyses of Variance showed that intra-couple dyadic attachment configurations produce significant differences in relationship satisfaction and psychological distress among dyadic units. Further investigation into intra-couple attachment configurations, relationship satisfaction, and the implications on individual psychological and physical health outcomes is recommended.

Keywords: attachment, relationships, illness attitudes, psychological distress, dyadic processes

Background

Adult intimate relationships are a distinctive and important social phenomena, as they make salient contributions to an individual's development in terms of socialisation and general belongingness (Hazan & Shaver, 1987), as well as to psychological and physical health outcomes (Umberson, Crosnoe, & Reczek, 2010). Attachment and relationship satisfaction have emerged as two primary factors contributing to the psychological and physical health associated with adult intimate relationships (Hawkins & Booth, 2005; Holland, Fraley, & Roisman, 2012). However, there are significant gaps in the literature regarding the interplay of these factors within romantic dyadic relationships, as opposed to the role of these variables for individuals. On a personal level, though these factors are enormously important in the quality and success of relationships, romantic partners are likely to possess varying assumptions and ideals in related to emotional support-giving, which can result in relational dissolution (Hazan & Shaver, 1987).

Attachment theory emphasizes that relationships are dynamic and reciprocal (Bowlby, 1982). One of the primary assumptions of Bowlby's (1969) attachment theory is that the representations people develop with early attachment figures plays a fundamental role in guiding the ways in which they behave in their interactions with significant others throughout their lifespan. Adult attachment is typically described using the two categories of insecure attachment (which includes attachment anxiety or avoidance) and secure attachment (Mikulincer & Shaver, 2007). Attachment anxiety typically refers to a pattern of hypersensitivity to threat, including heightened distress and persistent reassurance seeking from others. Attachment avoidance is characterized by the minimization of distress, ignoring threats, and self-reliance. Attachment security, on the other hand, is defined as comfortableness with closeness and exercising trust in the availability and responsiveness of others. Attachment models have been shown to predict how people seek support from significant others, and

the degree of their ability to provide comfort and reassurance to their partners in times of need (Pietromonaco, Uchino, & Schetter, 2013).

Attachment style and psychological distress

Karreman and Vingerhoets (2012) found that secure and dismissing attachment styles were associated with higher wellbeing, whereas pre-occupied attachment was associated with adverse psychological outcomes. Moreover, the authors concluded that these differences were primarily a result of the inherent resilience levels that function to maintain attachment orientations. Therefore, it may be suggested that attachment is associated with the development of stress-resistant attitudes and subsequent management of psychological stressors.

Simpson and Rholes' (1994, 2012) stress-diathesis model posits that attachment styles exhibit stronger associations to relationship functioning when individuals are experiencing distress than when they are not. When faced with a stressor, attachment orientations will ultimately drive the individual's responses and subsequent experiences of psychological distress. Individuals with higher chronic baseline levels of insecurity, such as those with anxious and avoidant attachments, are more likely to experience heightened psychological distress as a result of the amplified reaction to interpersonal perceptions (Collins & Feeney, 2000; Ein-Dore, Mikulincer, & Shaver, 2011).

Attachment style and illness behaviors

Previous studies have suggested that attachment styles are theoretically linked to health and illness behaviours (e.g., Hunter & Maunder, 2001). Illness behaviour refers to "the manner in which persons monitor their bodies, define and interpret their symptoms, take remedial action, and utilize various sources of help" (Mechanic, 1986, p. 101). Cross-sectional studies have revealed that treatment engagement is determined by secure attachment orientations, with anxious and avoidant attachments commonly responding to illness with defensiveness and denial (Hunter & Maunder, 2001). Furthermore, individuals with anxious-avoidant attachment orientations tend to perceive events more negatively than securely attached individuals, but are less likely to seek support and advice from others.

Studies have shown that insecurely attached individuals are at greater risk of engaging in behavioral strategies to help regulate unpleasant affect, such as smoking, drinking, and over-eating. Conversely, secure attachments are associated with less frequent engagement in maladaptive illness behaviors, higher rates of physical activity, and healthy eating habits (Pietromonaco et al., 2013). However, research in these areas has primarily focused on individual processes, as opposed to the connections between attachment and health behavior at a dyadic level.

Relationship satisfaction and psychological distress

Over the past decade, research on marital relationships has consistently reported that married people are healthier than non-married people, both in terms of mental and physical health (Kiecolt-Glaser, & Newton, 2001). The quality of the relationship has also been found to be important for understanding mental health and psychological distress outcomes among dyads (Bodenmann et al., 2006; Stutzer, & Frey, 2006). Research in this area has been largely guided by social learning theory (Bandura, 1977), which posits that relationship satisfaction is largely determined by interaction patterns, whereby positive interactions serve to enhance relationship satisfaction and wellbeing through alleviation of the negative impact of stress (Bodenmann et al., 2006). Few studies in this field have detailed the opposite importance of stress associated with dyadic and relational adjustment, despite the plethora of research to suggest that poor social support is a risk factor for both anxiety and depression (Lewis, Bates, Posthuma, Polderman, 2013).

Considerable research though, has linked the quality and satisfaction of personal relationships with health and illness behavior, whereby higher quality relationships and marriages have been associated

with better self-reported overall health (Williams & Umberson, 2004), lower mortality (Johnson, Backlund, Sorlie, & Loveless, 2000), better mental health (Simon, 2002), and less damaging health-related behaviours (Duncan, Wilkerson, & England, 2006). There is a growing amount of research to suggest that relational conflict is associated with adverse health outcomes, including increased risk for illnesses such as cardiovascular disease, myocardial infarction, high blood pressure, and cancer (Mauder & Hunter, 2001; Pietromonaco et al., 2013).

The current study

The aim of the present study was to determine the specific role of attachment on relationship quality, psychological distress, and illness behaviours among adults in an intimate relationship. It was hypothesised that:

- Attachment anxiety will be positively correlated and relationship satisfaction will be negatively correlated with illness behaviour and distress among adults in an intimate relationship.
- Relationship satisfaction will mediate the relationship between attachment style and illness behaviours and psychological distress among individuals in an intimate relationship;
- Intra-couple dyadic attachment configurations will produce significant differences in relationship satisfaction, psychological distress, and illness behaviours among dyads.

Method

Participants and procedures

Ethical approval was obtained from the relevant University Human Research Ethics Committee. The 104 participants in this study consisted of males and females in a dyadic couple relationship, aged between 25 and 65 years, and both partners in the dyadic relationship had to be willing to participate voluntarily. Participants were recruited through online community notice boards offered through the Australian Psychological Society, Facebook, Australian relationship counseling services, and other various psychological research websites.

Participants completed a demographic questionnaire, and were also asked to specify their current relationship status, the length of their current relationship, and whether they had sought psychological or counseling assistance for their relationship during the past 12 months.

The study included 49 heterosexual couples and three homosexual couples, with 51.9% being female and 48.1% being male. Fifty-four percent of participants were aged between 25 and 30 years. Approximately 20% were aged between 31 and 40, 15% between 41 and 50, and 13% between 51 and 65. The majority of couples identified themselves as being married (38.5%), in a de facto relationship (21.2%); in a [declared] relationship (36.5%), separated (1.9%) or divorced (1.9%). The median relationship length was between 1 to 5 years. Close to 14% of participants reported having accessed psychological services in the prior 12 months: of their relationship: 6.7% chose couples therapy, 3.8% individual therapy, 1.9% self-help, and 1% sex therapy. Couples were well educated, with 24% having completed high school or equivalent, 21.2% had attended a vocational/technical college, 29.8% held a bachelor's degree, and 16.3% had a post-graduate certification. The median annual income range was between \$60,000 and \$70,000. Most (49.0%) of the participants reported having a combined annual income of less than \$60,000, however, 28.8% reported an annual combined income of greater than \$100,001. Notably, 30.8% of participants were students, 5.8% worked in education, 5.8% in government, 4.8% in health care, and 4.8% in construction.

Assessments

Attachment.

The ECR-R (Fraley, Waller, & Brennan, 2000) was used to measure participants' adult attachment style, including basic orientation towards closeness and distance in adult romantic relationships. The ECR-R consists of two subscales: Anxiety (fear of rejection or abandonment), and Avoidance (discomfort with intimacy and seek independence). Participants were required to rate each item on a Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The ECR-R has been shown to possess good to excellent internal consistency across subscales (Cronbach's alpha = .89 to .94; Fairchild & Finney, 2006; Sibley, Fischer & Liu, 2005), as well as sound construct, convergent, and discriminant validity (Fairchild & Finney, 2006). Reliability analysis for the current study showed that the ECR-R demonstrated excellent internal consistency ($\alpha = .97$).

Relationship satisfaction. The DAS (Spanier, 1976) was used to measure participants' relationship satisfaction. The scale provides an overall score of dyadic adjustment, as well as a more specific description of different constructs of dyadic adjustment across four subscales, including: Dyadic Consensus (agreement within the dyad), Dyadic Satisfaction (happiness with the relationship), Dyadic Cohesion (areas of marital discord), and Affection Expression (interaction between partners). Previous studies have found evidence for the internal consistency (Cronbach's alpha = .96), and criterion, concurrent, and predictive validity of the scale (Spanier, 1976). Reliability analysis of the DAS for the current study demonstrated that the scale possessed acceptable internal consistency ($\alpha = .70$).

Psychological distress. The DASS-21 (Lovibond & Lovibond, 1995) was used to measure participants' level of psychological distress and negative emotionality. Participants were required to rate each item on a 4-point Likert-type scale, ranging from 0 (*did not apply to me at all*) to 3 (*applied to me very much, or most of the time*), with scores representing how much the statement applied to the respondent over the preceding week. The DASS-21 reportedly possesses good to excellent reliability across subscales (Cronbach's alpha = .87 to .94; Antony et al., 1998) and good convergent validity (Lovibond & Lovibond, 1995). Reliability analysis of the DASS-21 for the current study showed that the scale revealed excellent internal consistency ($\alpha = .94$).

Illness behavior. The IAS (Kellner, 1986) was used to measure participants' attitudes, symptoms, perceptions, and beliefs about illness. The IAS contains nine three-item subscales. Most items are scored on a five-point Likert-type scale, ranging from 0 (*no*) to 4 (*most of the time*). The IAS has demonstrated adequate test-retest reliability, and good discriminative and convergent validity (Kellner, 1987; Sirri, Grandi, & Fava, 2008). Reliability analysis of the IAS for the current study indicated that the scale possessed good internal consistency ($\alpha = .88$).

Design and Analysis

Fraley et al. (2000) proposed that a median split be used to assign participants to groups based on attachment-orientation. Thus, the median score for ECR-R anxiety and the median score for ECR-R avoidant were computed for each participant. Using Ainsworth et al.'s attachment groupings (1978), participants were grouped in the following manner:

- If the participant's score was less than the median calculated for ECR-R anxiety and less than the median for ECR-R avoidant, he or she was assigned to the secure group
- If the participant's score was greater than the median on either ECR-R anxiety or ECR-R avoidant, he or she was assigned to the insecure group.

Couples (coded Partner 1 or Partner 2) were then divided into three groups according to intra-couple attachment configurations, including: a. concordant secure (secure/secure); b. concordant insecure

(insecure/insecure); and c. discordant (secure/insecure). This process was based on data obtained through administration of the ECR-R. Moreover, this approach was utilized in order to remain consistent with that of other research studies concerned with the impact of attachment orientation on relationships (e.g., Hunter & Maunder, 2001; Taylor et al., 2000), and thus allow for greater comparisons.

Results

A series of preliminary one-way between groups Analysis of Variance (ANOVA) were conducted to determine whether the demographic variables co-varied with any of the independent or dependent variables. See Table 1 for results of significant correlations. No significant differences were observed for relationship length or education level, indicating that these variables did not significantly impact any of the independent or dependent variables.

Table 1. Means and Standard Deviations for Attachment, Relationship Satisfaction, Illness Attitudes, and Psychological Distress (n= 104)		
Variable	Mean	Standard Deviation
<i>Attachment (ECR-R)</i>		
Anxious	2.76	.60
Avoidant	2.84	.93
<i>Relationship Satisfaction (DAS)</i>		
Consensus	51.16	8.19
Satisfaction	33.96	4.69
Affectional Expression	9.50	1.83
Cohesion	5.60	2.34
Total	100.22	10.91
<i>Illness Behaviours (IAS)</i>		
Worry	7.17	2.90
Pain	6.86	2.55
Health Habits	9.42	3.25
Hypochondriacal Beliefs	4.43	2.10
Thanatophobia	5.54	2.98
Disease Phobia	4.06	2.13
Bodily Pre-occupations	4.81	2.28
Treatment Experience	6.70	2.23
Effects of Symptoms	5.38	2.60
Total	54.27	13.89
<i>Psychological Distress (DASS21)</i>		
Depression	6.44	7.72
Anxiety	4.83	5.67
Stress	10.31	7.26

To assess the predictive value of attachment styles, relationship satisfaction, and psychological distress among individuals in an intimate couple relationship, a hierarchical multiple regression (HMR) analysis was conducted on illness attitudes scores. (See Table 2). As age, gender, marital status, engagement in psychological services, and income were identified as significantly impacting at least one of the criterion or predictor variables in the preliminary analyses, these were controlled for by entering them at step one. ECR-R scores were entered at step two, DAS scores were entered at step three, and DASS-21 scores were entered at step four.

	Relationship Satisfaction	Illness Attitudes	Psychological Distress
Attachment Orientation			
Anxious	-.386**	.446**	.665**
Avoidant	-.572**	.277**	.591**
<i>Note.</i> ** = Correlation is significant at the 0.01 level (2-tail)			

In step one, the variance accounted for by age, gender, marital status, engagement in psychological services, and income equaled 17.8%, but was non-significant $F(16, 87) = 1.18, p = .304$. The predictor variables at step two explained 38.6% of the variance in illness attitudes scores, $F_{change}(2, 85) = 14.43, p = .000$, producing a medium combined effect ($r^2 = 0.34$). Standardized Betas showed that attachment-related anxiety contributes the greatest amount of unique variance to the model ($\beta = .49, p = .000$). In step three, DAS scores accounted for an additional 3.9% of the variance in illness attitudes scores but did not account for a significant amount of variance beyond that already accounted for by the preceding variables, $F_{change}(4, 81) = 1.36, p = .256$.

In step four, DASS-21 scores accounted for an additional 6.1% of variance in illness attitudes scores and was significant $F_{change}(3, 78) = 3.08, p = .032$. Further analysis indicated that Anxiety subscale scores on the DASS-21 were a significant predictor of illness behaviours ($\beta = .33, p = .023$).

Predicting psychological distress: Attachment orientation and adjustment

To assess the predictive value of attachment styles and relationship satisfaction among individuals in an intimate couple relationship, an HMR analysis was conducted on psychological distress scores. (See Table 3). In step one, the variance accounted for by age, marital status, engagement in psychological services, and income equaled a significant 27.7%, $F(15, 88) = 2.24, p = .010$. The coefficients indicated that engagement in psychological services was the only significant predictor of psychological distress, ($\beta = -.36, p = .001$).

In step two, ECR-R scores accounted for an additional 31.1% of the variance in DASS21 psychological distress scores, which represented a significant increase in prediction $F_{change}(2, 86) = 32.38, p = .000$. Combined, the predictor variables at step two explained 58.7% of the variance in psychological distress scores, producing a large combined effect ($r^2 = 0.75$). Standardised Betas showed that attachment-related anxiety contributed the greatest amount of unique variance to the model ($\beta = .51, p = .000$) followed by attachment-related avoidance ($\beta = .27, p = .008$), with higher ECR-R scores predicting higher psychological distress scores.

In step three, DAS scores accounted for an additional 7.7% of the variance in psychological distress scores, which represented a significant increase in prediction $F_{change}(4, 82) = 4.69, p = .002$. Combined, the predictor variables at step two explained 66.4% of the variance in psychological distress scores, with a medium combined effect ($r^2 = 0.23$). Further analysis indicated that Dyadic Satisfaction scores on the DAS were the most significant predictor of psychological distress ($\beta = -.29, p = .000$) followed by Dyadic Cohesion ($\beta = -.19, p = .022$), with lower DAS scores indicating higher psychological distress scores.

Table 3. Hierarchical Multiple Regression Analysis Predicting Illness Attitudes from ECR-R, DAS, and DASS21 Scores, After Controlling for Age, Gender, Marital Status, Engagement in Psychological Services, and Income

Variable	R	R ²	B	SE-B	β	95% CI
<i>Attachment Orientation</i>						
ECR-R Anxiety			11.35	2.60	.49	[6.18, 16.52]
ECR-R Avoidance			1.58	1.84	.11	[-2.09, 5.24]
<i>Total DAS</i>						
Dyadic Consensus			-.16	.22	-.10	[-.59, .26]
Dyadic Satisfaction			-.41	.31	-.14	[-1.02, .21]
Dyadic Cohesion			-.60	.64	-.10	[-1.86, .68]
Affectional Expression			1.84	1.03	.24	[-.21, 3.88]
<i>DASS21</i>						
Depression			-.44	.30	-.24	[-1.03, .16]
Stress			.45	.30	.24	[-.15, 1.05]
Anxiety			.81	.35	.33	[-.11, 1.05]

Note. ECR-R = Experiences in Close Relationships Questionnaire- Revised.
DAS = Dyadic Adjustment Scale. DASS21= Depression Anxiety and Stress Scale 21.
95% CI = 95% Confidence Interval.

Marital adjustment: Mediator of attachment anxiety and distress

Mediation analyses were conducted to test the hypothesis that relationship satisfaction mediates the relationship between attachment style and psychological distress and attachment style and illness attitudes. Because previous analyses showed that relationship satisfaction did not predict illness attitudes, it could not be a mediator, so our analyses here focus only on distress as an outcome. (See Table 4.)

The standardised regression coefficient between attachment anxiety and psychological distress decreased when marital adjustment was added to the model (a shift of $\beta = .67$ to $\beta = .55$). A Sobel test (Sobel, 1982) indicated the change in the predictive value of attachment anxiety was significant, $Z = 3.07$, $p = .002$. However, because the relationship between the mediator and dependent variable ($p = .000$), and the independent and dependent variables ($p = .000$) were both significant, marital adjustment only partially mediated the effect between attachment-related anxiety and psychological distress.

Attachment interactions: Adjustment, distress, and illness attitudes

A series of ANOVA's were used to examine the relationship between couples' attachment orientation, marital adjustment, illness attitudes, and psychological distress. Following median split procedures, the frequency of participants in each group were as follows: 20 couples (38.5%) were concordant

insecure (insecure/insecure), 18 (34.6%) were discordant (insecure/secure), and 14 (29.9%) were concordant secure (secure/secure).

Table 4. Statistically Significant One-Way ANOVAs Assessing the Relationship Between Demographic Variables and Independent/Dependent Variables

	df	df (error)	F	p
Gender as predictor				
IAS illness attitudes	1	102	5.29	.024
Age as predictor				
ECR-R attachment anxiety	7	96	2.46	.023
ECR-R attachment avoidance	7	96	2.49	.021
DAS marital adjustment	7	96	2.49	.021
Marital status as predictor				
ECR-R anxiety	4	99	2.71	.035
ECR-R avoidance	4	99	4.07	.004
DAS marital adjustment	4	99	3.09	.019
DASS-21 distress	4	99	2.80	.030
Engagement in psychological services as predictor				
ECR-R avoidance	1	102	10.26	.002
DASS-21 distress	1	102	13.16	.000
Annual income as predictor				
ECR-R anxiety	5	98	2.96	.016
ECR-R avoidance	5	98	5.30	.000

There was a statistically significant difference between intra-couple attachment configuration groups and marital adjustment, $F(2, 49) = 9.76, p = .000$. A Tukey post-hoc test revealed that marital adjustment was significantly lower for concordant insecure (93.55 ± 10.42) than concordant secure groups (107.21 ± 6.52). Marital adjustment was also significantly lower for concordant insecure when compared to discordant groups (102.28 ± 9.48). There were no statistically significant differences between the concordant secure and discordant groups ($p = .297$).

There was a statistically significant difference between intra-couple attachment configuration groups and psychological distress, $F(2, 49) = 9.76, p = .000$. A Tukey post-hoc test revealed that psychological distress was significantly higher for concordant insecure (32.20 ± 18.20) than concordant secure groups (10.57 ± 6.20). Psychological distress was also significantly higher for concordant insecure when compared to discordant groups (16.67 ± 16.48). There were no statistically significant differences between the concordant secure and discordant groups ($p = .506$). There was no significant interaction between intra-couple attachment orientations and illness attitudes, $F(2, 49) = .22, p = .802$.

Discussion

The present study aimed to determine the specific role of attachment on relationship quality, psychological distress, and illness behaviors among adults in an intimate relationship.

Predicting illness attitudes and psychological distress from attachment

Consistent with our hypotheses, the present study found that state levels of attachment anxiety significantly predicted higher levels of abnormal illness behaviors and psychological distress among adults in an intimate relationship. These results align with previous research conducted in this area, which suggest that attachment-related anxiety affects how individuals perceive and regulate illness, as well as their ability to regulate distress (Mikulincer & Shaver, 2007).

In this study, individuals who possessed higher levels of anxious and avoidant attachment characteristics expressed higher levels of worry about health and fear of illness, were less likely to avoid smoking and unhealthy eating, and were more likely to be concerned about potential illnesses such as cancer and heart disease. Similarly, the results suggested that insecurely attached individuals are more likely to believe they have a serious illness, such as cancer or heart disease, but are less likely to seek appropriate medical attention.

However, due to the present study's design, the exact relationship between attachment-related distress and intimate relationships cannot be inferred. Moreover, it cannot be said whether the psychological distress is inherent in all adults in an intimate relationship with insecure attachment, or if the results were influenced by other uncontrolled variables inherent in couple relationships, such as children, job stress, and mortgage stress (Mikulincer & Shaver, 2012). Nevertheless, results of the present study indicated that a strong relationship between attachment and psychological distress does exist in some capacity.

Predicting illness attitudes and distress from relationship satisfaction

Consistent with published research (Pietromonaco et al., 2013; Williams & Umberson, 2004), the present study found that levels of self-reported relationship satisfaction predicted levels of psychological distress reported among adults in an intimate relationship. However, the hypothesis that relationship satisfaction would be a significant negative predictor of illness behaviors among adults in an intimate relationship was not supported. Together, the results indicate that couples who are less satisfied with their romantic relationship are more likely to experience psychological disturbance, but that levels of relationship satisfaction are unlikely to affect their health and/or illness behaviors.

Consistent with Bandura's social learning theory (1977), results of the present study suggest that relational interactional patterns have a correlational influence on subsequent mental wellbeing, whereby positive self-reports of relationship satisfaction are correlated to lower levels of psychological distress among adults in an intimate relationship. Overall, this study provides interesting data to support Bodenmann et al.'s (2006) theory that perceptions of dyadic support has correlational influences on subsequent stress, coping, and adjustment. In the present study, adults who reported feeling supported and understood by their respective partner generally reported lower levels of psychological distress. Although not directly addressed by the research question, this study did not find support for the notion that marriage itself is associated with positive mental wellbeing (Bodenmann et al., 2006, Stutzer & Frey, 2006). Based on the results obtained, it is more likely that the nature of the relationship (i.e., relationship satisfaction) influences psychological health, as opposed to marital status alone.

Previous research points to a potential relationship between relationship satisfaction and physical health, despite the failure of the present study to produce similar results. Several reasons may be proposed for this finding, including much of the previous research being largely retrospective and reliant on objective outcome measures, as opposed to self-report data as used in the current study (Berkman et al., 2000; Maunder & Hunter, 2001; Uchino, 2006).

Relationship satisfaction: mediator between attachment and illness attitudes

Inconsistent with prior research (e.g., Hunter & Maunder, 2001; Maunder & Hunter, 2008), mediation analyses in the present study suggested that relationship satisfaction is not a mechanism or process that underlies the observed relationship between attachment and illness attitudes among couples in an intimate relationship.

Possible explanations for this result can be found in the literature. Researchers have suggested that relationship satisfaction may be a function of attachment and thus its effects may be difficult to examine in isolation from attachment, especially when looking at their effect on illness attitudes (e.g., Campbell et al., 2005; Guerrero et al., 2011; Holland et al., 2012). While attachment and relationship satisfaction appear to have independent correlations with illness attitudes among couples, when these variables are studied together their effects may be masked. Due to the lack of studies examining relationship satisfaction and illness attitudes in the context of attachment, however, the exact function of this relationship remains somewhat ambiguous and may be an area for future research.

Relationship satisfaction: mediator between attachment and distress

Consistent with previous research (e.g., Karreman & Vingerhoets, 2012), in addition to the marital discord model of depression (Beach et al., 1990), the current study found that relationship satisfaction partially mediated the relationship between attachment-related anxiety and psychological distress. These results indicate that attachment-related anxiety is associated with psychological distress partially via the adjustment of an individual's primary intimate relationship. As such, hypothesis that relationship satisfaction would fully mediate the relationship between attachment-related anxiety and psychological distress was not fully supported. However, it was unlikely that a full mediation would be achieved due to the identified relationship between attachment and psychological distress, and the suspected interrelatedness of attachment orientations and relationship satisfaction among individuals in an intimate relationship (Bippus & Rollin, 2003; Campbell et al., 2005). Furthermore, it may be that the effects of gender potentially diminished the observable mediatory effect of relationship satisfaction between attachment and psychological health, based on relation that indicates gender impacts the interplay between relationship satisfaction and psychological health (Proulx et al., 2007).

Simpson and Rholes' (1994, 2012) stress-diathesis model would suggest that attachment styles are more strongly associated with relationship functioning and satisfaction ratings when an individual is experiencing distress. In the present study, the mean psychological distress score was within the normal range on the DASS-21 subscales (refer to [Table 1]). Due to the low levels of psychological distress reported by participants, it is possible that the attachment-related behaviors that serve to promote relational functioning schemas were not activated among participants and thus reduced the potential mediatory effect of relationship satisfaction.

Intra-couple dyadic attachment configurations and subsequent effects

In line with studies in the area of attachment orientation and psychological distress (Hunter & Maunder, 2001; Simpson & Rholes, 1994), the hypothesis that intra-couple dyadic attachment configurations would produce significant differences in relationship satisfaction and psychological distress among dyads was supported. However, the hypothesis that intra-couple dyadic attachment would produce differences in illness behaviours among dyads was not supported. Combined, the results indicate that intra-couple attachment orientations (i.e., concordant secure/insecure, discordant) have significant impacts on how partners rate their relationship satisfaction and psychological wellbeing, but that intra-couple attachment configurations do not affect self-reported intra-couple health and/or illness behaviors.

Findings of the present study lend support to cross-spousal theories of marital dissatisfaction by Beach et al. (1990, 2003), whereby one's marital disillusion may be related to subsequent psychological degradation, not only within the individual but also [in OR between the individual and] their intimate partner. Consistent with attachment-theory (Bowlby, 1969), the present study also found that concordant insecure intra-couple attachment configurations were more likely to experience lower levels of marital adjustment and higher levels of psychological distress, than couples in which at least one member of the dyadic unit was securely attached. This finding suggests that securely attached individuals may be more likely to act to ensue relational commitment and communication, whereas insecurely attached individuals are likely to rely on their partner to help regulate their

feelings. Moreover, this finding implies that discordant couples may be more likely to have their relational needs met by the attachment-driven behaviors of their partner, whereas partners within a concordantly insecure dyad are each looking toward their partner for attachment-related pro-social behaviors that their partner cannot provide, potentially resulting in marital maladjustment and psychological distress.

While different dyadic attachment configurations significantly affected relationship satisfaction and psychological distress, attachment did not appear to have a significant effect on intra-couple illness behaviors. As purported by Hunter and Maunder (2001), however, the non-significant result might also be a function of attachment-related schemas and subsequent perceptions of health and illness behaviors. Moreover, it is plausible that the insecurely attached individuals within the present study under-reported their illness behaviors as a direct result of their attachment-related schemas and defenses. Just as relationship satisfaction did not predict illness behaviors, perceptions of health and illness behaviors as a function of the dyadic arrangement might also have had undue influence on participant self-reports. Combined, these hypotheses suggest that while the results were non-significant there are processes that arise as a result of intra-couple attachment configurations that may affect individual responses to illness that remains somewhat unclear.

Limitations and recommendations for future research

The present study contains a number of limitations that merit consideration. First, due to the relatively small sample size and the use of a convenience sampling method, the generalizability of results may be limited. Future research should seek to determine whether the present study's results are replicable in a larger, broader sample of adult dyads. Second, the study data was entirely cross-sectional, which meant that conclusions regarding the issues of causality could not be addressed. A further limitation includes the use of self-report data as the primary means of data collection, as self-report data is often susceptible to bias and distortion (Shaughnessy & Zechmeister, 1985). The approach for dividing couples into the three groups for intra-couple attachment configurations was a major limitation of the current study, and may have been improved by utilizing a hierarchical or multi-level model. Future research thus may seek, more generally to use multi-model methods (e.g., objective measures of health, partner reports) of data collection to improve the reliability of results and confidence in interpretation.

Conclusion

Overall, the study found state levels of attachment-related anxiety significantly predicted psychological distress and illness behaviours among adults in an intimate relationship, and that relationship satisfaction mediated the relationship between attachment-related anxiety and psychological distress. Intra-couple attachment configurations also produced significant differences in relationship satisfaction and psychological distress among dyads. Although further work is required to clarify the interplay of attachment, relationship satisfaction, illness behaviors, and psychological distress among dyadic units, the results of the present study contributed to a limited body of research that exists regarding these intra-dyadic processes. Combined, the results highlight the importance of considering dyadic-attachment configurations on relationship satisfaction, health and illness behaviors, and psychological distress. Further research is necessary in order to establish a stronger foundation for the development of dyadic-conscious therapeutic interventions for couples facing relational, psychological, and health stressors.

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Assistant Professor Peta Stapleton BA, PGDipPsy, PhD, is a registered Clinical and Health Psychologist and is Program Director of the Masters of Clinical Psychology program at Bond University. She specializes in eating disorders, women's health and adolescent issues, and has served as President of the Eating Disorders Association of Queensland numerous times. She recently led a world-first randomized clinical trial investigating Emotional Freedom Techniques vs. Cognitive Behavioral Therapy to treat food cravings in obese adults, and is now researching the application of EFT to eating, activity and resilience levels in overweight youth.



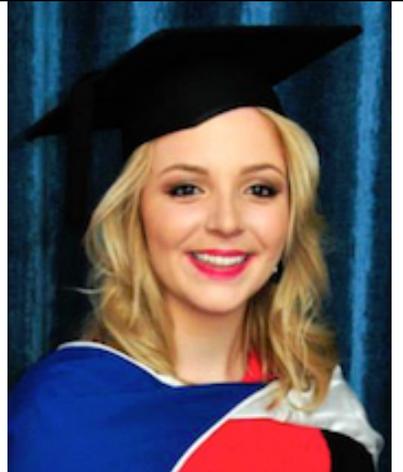
Contact:

Dr Peta Stapleton
 Bond University Faculty of Society and Design
 14 University Drive
 Robina QLD 4226, Australia (
pstaplet@bond.edu.au).

Anne Woodcroft-Brown is a registered psychologist who completed her Masters in Clinical Psychology at Bond University, Gold Coast. She is currently working as a school guidance counselor in primary schools, with previous experience in counseling for children, adolescents, and adults who have experienced child sexual assault. Anne maintains a strong interest in attachment, psychological well-being, and health and illness behaviors.



Hannah Chatwin is a Generally Registered Psychologist currently undertaking her clinical endorsement, who completed her degree at Bond University, Australia. She has experience in public, community, and private mental health sectors. Hannah works as a Senior Research Assistant at Bond University alongside Dr Peta Stapleton.



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