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# Caregivers' Burden and Depressive Symptoms: The Moderational Role of Attachment Orientations

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**Objective:** The current study explored whether attachment orientations moderate the associations between caregiver burden and depressive symptoms among women coping with their partners' first time acute coronary syndrome. The association between burden and depression was hypothesized to be stronger among caregivers high on anxious attachment than among caregivers low on this dimension. In addition, the association between burden and depressive symptoms was hypothesized to be weaker among caregivers higher on avoidant attachment than among those lower on this dimension. **Method:** The sample consisted of 111 female caregivers of male patients admitted to the cardiac care unit of a hospital in Israel. Caregivers completed a measure of attachment orientations during patients' hospitalization (baseline). Caregiver burden was measured 1 month later. Depressive symptoms were measured at baseline and again at 6-month follow-up. Structural equation modeling was used to test the moderational models. **Results:** The association between caregiver burden and depressive symptoms at follow-up was moderated by attachment-related anxiety but not attachment-related avoidance. Congruent with predictions, a stronger association between caregiver burden and depressive symptoms occurred for caregivers with greater (vs. lower) attachment anxiety. **Conclusions:** The findings shed light on the possible dynamics among attachment orientations and affect regulation when coping with one's partner's illness. The findings are discussed in light of Pietromonaco, Uchino, and Dunkel Schetter's (2013) model of integrating attachment into health psychology research.

**Keywords:** attachment, burden, cardiac illness, caregiving, depression

In a recent issue of *Health Psychology*, Pietromonaco, Uchino and Dunkel Schetter wrote that "cutting edge research in relationship science typically has not been integrated into health psychology" (2013, p. 499). As an example, the authors argued in favor of using attachment theory (Bowlby, 1969, 1973; Mikulincer & Shaver, 2007) as a potent theoretical framework for understanding health-related psychological processes. Attachment theory explains how repeated interactions between infant and caregiver result in an individual's lifelong ability to deal with stress, regulate

emotions, manage interpersonal relationships, and resist illness (Maunder & Hunter, 2001, 2008; Sadava, Busseri, Molnar, Perrier, & DeCourville, 2009). According to attachment theory, a stressor such as illness is especially likely to activate the attachment system (Bowlby, 1969); thus, adaptation to illness will be determined, in part, by attachment orientation (J. A. Feeney & Ryan, 1994). Moreover, as attachment and caregiving processes are interconnected in adult intimate relationships (Carnelley, Pietromonaco, & Jaffe, 1996; Collins & Feeney, 2000; B. C. Feeney & Collins, 2001; Kuncé & Shaver, 1994; Mikulincer & Shaver, 2007; Mikulincer & Shaver, 2009), attachment orientations may also play a central role when one's *partner* is coping with serious illness.

Pietromonaco et al. (2013) primarily focus on the direct contribution made by attachment orientation to relationship-related variables that, in turn, influence psychological and physiological health outcomes. Attachment orientations might make other contributions, as well, by serving to moderate the associations among relationship variables such as perceived caregiver burden and outcome variables such as caregiver depression.

Conceptualizing attachment orientations as moderators of the associations between relationship variables and health outcomes makes sense in light of attachment theory's focus on affect regulation (Mikulincer, Shaver, & Pereg, 2003). As originally suggested by Bowlby (1969), the quality of a person's early interper-

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sonal childhood experiences shapes the ability to regulate emotions over the entire life course. Individual differences in adult attachment orientations, then, should be able to distinguish between adults who are better able to buffer the possible negative psychological effects of relationship-related variables from those who are not.

The research reported here responds to Pietromonaco et al.'s (2013) timely call for the integration of attachment theory into health psychology research. The present study examines how adult attachment orientations moderate the relationship between caregiver burden and depressive symptoms among women who are coping with their partners' first acute coronary syndrome (ACS). ACS is a myocardial infarction or new onset chest pain requiring hospitalization for stabilization and thus constitutes a major and potentially life-threatening stressor.

### Caregiver Burden in the Context of Cardiac Illness

Caregiver burden is defined as the extent to which caregivers perceive their emotional or physical health, social life, or financial status to be affected by their caring for an ill relative (Zarit, Todd, & Zarit, 1986). For married or partnered adults who experience ACS, a great deal of the caregiving responsibility falls to the partner (Lemos, Suls, Jenson, Lounsbury, & Gordon, 2003). It is therefore not surprising that the caregiving situation is seen as burdensome for many (Randall, Molloy, & Steptoe, 2009) and has the potential to create overwhelming and negative emotions for caregivers, possibly hindering their ability to provide quality care (Molloy, Johnston, & Witham, 2005). A number of studies provide empirical support for this, demonstrating an association between burden and depression among family caregivers of patients with cardiac illnesses (e.g., Aggarwal, Liao, Christian, & Mosca, 2009; Chung et al., 2010; Hooley, Butler, & Howlett, 2005; Saunders, 2008) and other life-threatening illnesses (Grunfeld et al., 2004).

Thus, it is important to identify those psychological processes that may weaken the association between caregiver burden and depression. It is proposed that secure attachment may do this by regulating the negative emotions that stem from feelings of caregiver burden.

### Attachment Theory and Caregiver Burden

Attachment theory is applicable to adult relationships, as partners rely on each other to satisfy their attachment needs and at the same time act as each other's caregivers, serving as front-line sources of emotional and instrumental support (Collins & Feeney, 2010; Hazan & Shaver, 1987; Morse, Shaffer, Williamson, Dooley, & Schulz, 2012; Revenson & DeLongis, 2011). Because activation of the caregiving system is likely to activate the attachment behavioral system, individual differences in attachment orientations are expected to shape the way caregiving burden is tolerated. For example, having a secure attachment should provide an individual with resources to endure caregiving burden without becoming depressed.

Anxiously attached individuals tend to focus largely on their own distress and needs and may therefore find it difficult to focus on the needs of their significant other (Mikulincer, Shaver, Gillath, & Nitzberg, 2005; Shaver, Mikulincer, & Shemesh-Iron, 2010). The caregiver's real or imagined worries of being rejected or

abandoned because the partner is overly absorbed by her or his own worries may lead to attachment-system hyperactivation, in which feelings of distress are exacerbated (Mikulincer & Shaver, 2007). Being anxiously attached is consistently associated with attributions that increase one's distress (Ciechanowski, Katon, Russo, & Dwight-Johnson, 2002; Mikulincer & Shaver, 2007; Vilchinsky, Dekel, Asher, Leibowitz, & Mosseri, 2013). Thus, the more that caregivers who are high on anxious attachment are required to shift focus from their own needs to those of their partners as they become more burdened by caregiving chores, the more distressed they are likely to become.

In contrast, individuals who show a high degree of attachment avoidance are characterized by rigid self-reliance and a predisposition to keep cognitions and emotions separate; this tactic helps them to remain emotionally detached and protected from interpersonal distress (Mikulincer & Shaver, 2009; Mikulincer et al., 2003; Pereg, 2001). Avoidant individuals tend to inhibit emotional states that are incongruent with the goal of attachment system deactivation (Mikulincer & Shaver, 2005). Accordingly, emotional distress in the context of caregiving may imply emotional investment in a relationship, which is incongruent with an avoidant person's preference for interpersonal distance. Attachment-related avoidant caregivers who perceive their caregiving situation as emotionally threatening and psychologically burdensome may shut down their emotional system in order to avoid as much distress as possible. As a result, the association between caregiver burden and depressive symptoms is expected to be weaker among individuals with higher avoidant attachment than individuals with lower avoidant attachment.

Empirical studies of the association between attachment orientations and caregiver burden among people caring for ill partners are scarce, and most studies have focused on adult children caring for their parents (e.g., Carpenter, 2001). In addition, no study to date has explored whether attachment orientations moderate the association between caregiving burden and depression among those caring for partners with a serious physical illness. In order to disentangle the dynamics among attachment orientation, caregiver burden and depressive symptoms, the current study tested the hypothesized moderation model of attachment orientations on the association between burden and depressive symptoms.

The study hypotheses were as follows:

*Hypothesis 1:* The association between caregiver burden and depressive symptoms will be stronger among caregivers higher on anxious attachment than among caregivers lower on anxious attachment.

*Hypothesis 2:* The association between caregiver burden and depressive symptoms will be weaker among caregivers higher on avoidant attachment than those with lower avoidant attachment.

## Method

### Participants and Procedure

The current study is part of a longitudinal prospective research project investigating personal and dyadic adjustment to heart disease (Vilchinsky et al., 2010, 2011, 2013). The target population

for the longitudinal study was comprised of married or cohabiting men diagnosed with their first ACS who were admitted between March 2005 and July 2007 to the cardiac care unit of the Meir Medical Center in central Israel. To be eligible for the study, their (female) partners also had to agree to participate. This study targeted male patients with ACS only, for the sole reason that the average female cardiac patient is older and more likely to be widowed (Lemos et al., 2003). In addition, patients over 75 years of age with a history of a previous cardiac event, patients with a diagnosis other than ACS as their heart disease, or patients with comorbid illnesses were not eligible; also, if the partner of a patient had a serious illness, the patient was not eligible. As interviews were conducted in Hebrew, couples in which one or both partners were not fluent in Hebrew were excluded.

Of 306 patients eligible for the longitudinal study, 88 were not interviewed due to the fact that they had left for another hospital, another ward, or been released to their homes before the interview could take place or because their partners' severe health problems. Of the remaining 218 patients, 111 agreed to participate (51% response rate), along with their partners, whom we will refer to as "caregivers."

Caregivers completed the baseline study questionnaire in-person during patients' hospitalization and were interviewed 1 month and 6 months later to collect follow-up data. The study was approved by the Meir Medical Center Review Board.

## Measures

All measures were self-report. Caregivers' attachment orientations were measured during patients' hospitalization (2–3 days after the ACS); caregiver burden was measured 1 month after the ACS, and depressive symptoms were measured at baseline and 6 months after the ACS.

## Depressive Symptoms

Depressive symptoms were measured using a Hebrew translation of the depression subscale of the Brief Symptom Inventory (Derogatis & Melisaratos, 1983; translation by Gilbar & Ben-Zur, 2002). Caregivers were asked to rate the degree to which they had experienced six symptoms, such as feelings of hopelessness, worthlessness, and loss of interest, during the previous month, on a scale ranging from 1 (*not at all*) to 4 (*very much*). Scores were averaged so that higher scores represent greater depression. Cronbach's alpha coefficients were .75 and .84 for the baseline and 6-month assessments, respectively. Using the clinical cutoff proposed by Piersma, Reaume, and Boes (1994) of + 2 *SD* above the mean, 6.6% (7) of the patients were above the normal range for depression.

## Attachment Orientations

Caregivers' attachment orientations were measured at baseline only using a shortened 24-item version of the Experiences in Close Relationships Scale (Brennan, Clark, & Shaver, 1998). The Experiences in Close Relationships Scale is a self-report scale measuring the two dimensions of attachment anxiety and avoidance and has been translated into Hebrew and used extensively with Israeli populations (Mikulincer & Florian, 2000; Mikulincer & Shaver,

2007; Vilchinsky et al., 2010, 2013). Participants rated the extent to which each item of the questionnaire was descriptive of their feelings in close relationships on a scale ranging from 1 (*not at all*) to 7 (*very much*). The items chosen for the short form were those with the highest factor loadings, as reported by Brennan et al. (1998). Twelve items reflect attachment anxiety (e.g., "I worry about being abandoned"), and 12 reflect attachment avoidance (e.g., "I prefer not to show my partner how I feel deep down"). Scores were computed for each of the two scales by averaging item responses. Cronbach's alphas were .78 and .76 for anxious and avoidant attachment, respectively.

## Caregiver Burden

Caregiver burden was measured one month after the patient's hospitalization for ACS with the Caregiver Burden Inventory (Novak & Guest, 1989). The 24-item measure, originally developed for use with caregivers of patients with Alzheimer's disease, evaluates feelings and responses of caregivers to their partners' needs. Sample items are "I don't get a minute of rest," "I feel that I am missing experiences in life," and "I am sleep-deprived." Caregivers indicate the extent to which each item describes their feelings on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very much*). A total burden score was obtained by averaging item responses, with higher scores representing higher levels of burden. The Hebrew version of the questionnaire has been validated with an Israeli sample of wives of war veterans with posttraumatic stress disorder and brain injuries (Ben-Arzi, Solomon, & Dekel, 2000). Cronbach's alpha was .91.

## Caregivers' Demographic Characteristics

At the time of patients' hospitalization, female partner caregivers were asked to complete a short demographic questionnaire including their age, duration of the relationship (in years), number of children, years of education, subjective socioeconomic status (1 = *very poor* to 5 = *excellent*), and subjective health (1 = *very poor* to 5 = *very good*).

## Patients' Medical Information

At the time of hospitalization, the severity of the patient's illness was estimated by a senior cardiologist using two criteria: an echocardiogram score, which assessed current damage to the heart, and an angiogram score, which assessed the status of the obstructed arteries and thus the risk of future damage. Both scores were measured on a scale ranging from 1 (*normal*) to 5 (*extremely severe*).

## Data Analysis Plan

Multiple imputation analysis was used to handle missing data (Enders, 2010). The fraction of missing data quantifies the missing data's influence on the sampling variance of a parameter estimate (Enders, 2010, p.225). The fraction of missing data in the current study ranged from 0.001 to 0.10 (on a scale ranging from 0 = *no missing information* to 1 = *all information missing*) across all parameters' estimates in the dataset. The missing completely at random (MCAR) coefficient test, based on T. D. Little's (2013)

test for MCAR ( $\chi^2 = 150.10$ ,  $df = 144$ ,  $p = .348$ ; see also R. J. A. Little, 1988) indicated that data were missing at random.

Of the 111 female caregivers, two had deviant values (outliers) at baseline and also had missing values at follow-up. Thus, a multiple imputation analysis was conducted with the remaining 109 female caregivers. This was conducted with the multiple imputation analysis procedure in SPSS 21. As interactive effects were hypothesized, analyses were conducted according to Enders' suggestion to preserve interaction effects in the imputation model.

Pearson correlations examined the bivariate associations among variables. To examine the moderating role of attachment orientations on the association between caregiver burden and depressive symptoms, a structural equation modeling analysis was performed with maximum likelihood estimation using Mplus 7.1 (Muthén & Muthén, 2012). Latent variables were used in order to allow the model to explicitly capture the unreliability of the model measurements (Bowen & Guo, 2012, p.18). The construction of the latent interaction variables (Attachment Orientations  $\times$  Burden) was done according to guidelines proposed by Wang and Wang (2012). To examine the simple slopes of the interactions, the study used the procedure outlined by Preacher, Curran, and Bauer (2006), developed specifically for two-way regression models.

## Results

### Sample Characteristics

Caregivers, all women, ranged in age from 39 to 74 years ( $M = 55.05$ ,  $SD = 7.49$ ), had been married to or in a long-term relationship with the patient for an average of 27.61 years ( $SD = 11.29$ ), and had an average of 2.93 children ( $SD = 1.16$ ). The majority of caregivers (60.6%) reported a high socioeconomic status (SES), a third of the sample (37.6%) reported a moderate SES, and only 1.8% reported a low SES. On average, caregivers had completed more than 12 years of formal education ( $M = 14.37$ ,  $SD = 3.09$ ). Most of the caregivers (78%) reported good to very good health, with the remainder (except for one) reporting moderate health.

All patients had undergone angioplasty for their disease ( $M_{\text{Angio}} = 3.23$ ,  $SD = .77$ ). Angiogram scores before the angioplasty indicated that 61.3% had normal to moderate levels of arterial obstruction, and the rest had severe to very severe levels of obstruction. In addition, 94 patients had undergone an echocardiogram while in the coronary care unit ( $M_{\text{Eco}} = 1.91$ ,  $SD = 1.01$ ); only 5 (5.3%) had sustained severe damage to their hearts.

### Descriptive Analyses

Table 1 presents the means, standard deviations, range of scores, and intercorrelations of the study variables. Caregivers' depressive symptoms were extremely stable from baseline to follow-up; therefore, baseline depressive symptoms were included as a covariate in all analyses. Attachment anxiety and attachment avoidance at baseline were both positively associated with caregivers' depressive symptoms at baseline and follow-up as well as with caregiver burden a month later (although the correlation between attachment anxiety did not reach significance). Caregiver burden measured 1 month after the patient's ACS was positively associated with depressive symptoms 6 months post ACS. Among all the sociodemographic and medical variables tested, SES was negatively associated with baseline depressive symptoms, and caregivers' self-reported health was associated positively with anxious attachment. Therefore, SES and caregiver's self-reported health were included as covariates.

### Testing the Moderational Model

The models consisting of the hypothesized interactions were tested following Hayes' (2013) guidelines for assessing moderation effects. The moderating role of attachment orientations on the association between burden and depression was assessed controlling for baseline depression level and covariates (SES and caregivers' self-reported health). Table 2 presents the SEM results and fit indices for each of the models. Model 1 consists of the basic model before assessing the hypothesized interactions effects. Model 2 includes the interaction between attachment anxiety and burden on depression. Model 3 includes the interaction among attachment avoidance and burden on depression. Finally, Model 4 includes the third order interaction of both attachment orientations and burden on depression.

As seen in Table 2, the interaction between attachment anxiety and caregiver burden was significant and Model 2 showed an improved goodness of fit compared to Model 1 (delta Bayesian information criterion = 3.57; Wang & Wang, 2012, p. 22). The interaction between attachment avoidance and caregiver burden was not significant (Model 3), nor was the third order interaction among attachment anxiety, attachment avoidance, and burden (Model 4). There was not a significant improvement in the goodness of fit for either Model 3 or Model 4. Therefore, Figure 1 presents the coefficients for the significant direct and interaction effects based on the best-fitting model, Model 2. As expected, significant paths were found from baseline depressive symptoms to depres-

Table 1

Means, Standard Deviations, Range of Scores, and Pearson Correlations of the Study Variables ( $N = 109$ )

Variable	<i>M</i>	<i>SD</i>	Min.	Max.	1	2	3	4	5	6
1. Attachment-related avoidance	2.69	.89	1.00	5.25	—					
2. Attachment-related anxiety	2.75	.99	1.00	5.42	.52***	—				
3. Caregiver burden	1.44	.48	1.00	3.46	.20*	.15	—			
4. Depressive symptoms at baseline	1.47	.44	1.00	3.67	.46***	.40***	.19	—		
5. Depressive symptoms at follow-up	1.46	.55	1.00	3.86	.32**	.31**	.46***	.49***	—	
6. Socioeconomic status	3.77	.72	1.00	5.00	-.11	-.01	-.16	-.30**	-.27**	—
7. Caregivers' subjective health	3.94	.61	1.00	4.00	-.13	-.21*	-.17	-.17	-.13	.31**

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .00$ .



Table 2  
Summary of the SEM Models' Results

	Model 1	Model 2	Model 3	Model 4
AIC	959.56	956.46	958.28	960.25
$\Delta$ AIC	—	3.10	1.28	-0.69
BIC	949.26	945.69	947.03	948.07
$\Delta$ BIC		3.57	2.23	1.19
$\chi^2$	6.48			
<i>df</i>	8			
RMSEA	<.001			
CFI	1.00			
TLI	1.00			
SRMR	.058			
Interactions				
Anxiety $\times$ Burden		Int = .25, SE = .12, <i>p</i> = .04	Int = .29, SE = .15, <i>p</i> = .06	Int = .34, SE = .16, <i>p</i> = .03
Avoidance $\times$ Burden			Int = -.06, SE = .15, <i>p</i> = .68	Int = .07, SE = .20, <i>p</i> = .74
Anxiety $\times$ Avoidance				Int = .002, SE = .08, <i>p</i> = .98
Anxiety $\times$ Avoidance $\times$ Burden				Int = -.21, SE = .16, <i>p</i> = .19

Note. SEM = structural equation modeling; SE = standard error; AIC = Akaike information criterion;  $\Delta$ AIC =  $\delta$  AIC from one model to the former one; BIC = Bayesian information criterion;  $\Delta$ BIC =  $\delta$  BIC from one model to the former one; RMSEA = root mean square error of approximation; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; SRMR = standardized root mean square residual; Int = interaction coefficient.

sive symptoms at follow-up ( $\beta = 0.57, p < .001$ ) and from caregiver burden to depressive symptoms at follow-up ( $\beta = 0.41, p < .001$ ). In addition, the associations of the two attachment orientations with baseline depressive symptoms were significant and large.

The procedures outlined by Preacher et al. (2006) were used to test the simple slopes of the significant interaction. Caregiver burden was positively associated with depressive symptoms 6 months post ACS for caregivers high on attachment-related

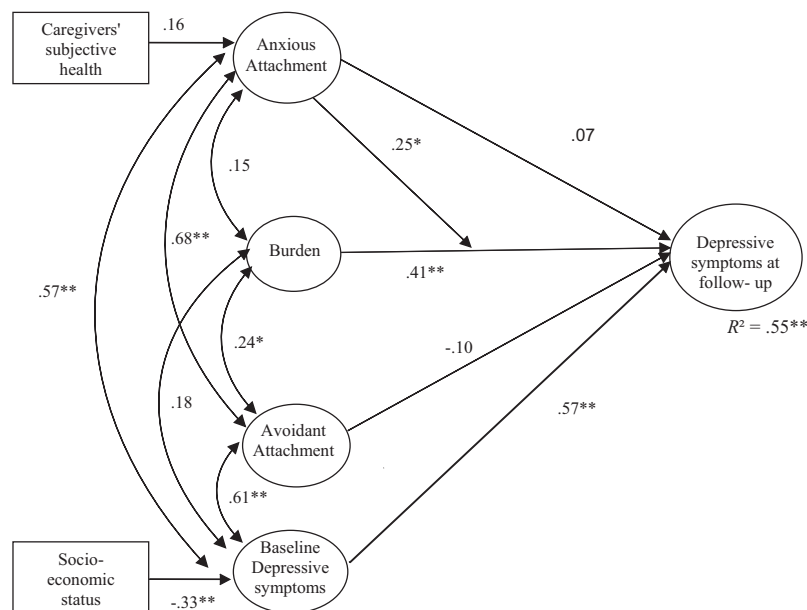


Figure 1. Final structural analysis model of attachment orientations and burden on depressive symptoms at follow-up, including the significant interaction. Significant paths are presented in bold lines. \*  $p < .05$ ; \*\*  $p < .001$ .

anxiety (1 *SD* above the mean),  $b = .47$ ,  $p < .05$ , but not for caregivers low on attachment-related anxiety (1 *SD* below the mean),  $b = -.02$ ,  $p > .05$ . In other words, the higher the scores on the anxiety attachment scale, the stronger the association between caregiver burden and depressive symptoms (see Figure 2).

### Discussion

The findings of this study indicate that female caregivers' feelings of burden are associated with depressive symptoms over time and that this burden is associated with greater psychological distress for those caregivers high on attachment anxiety. Thus, the study provides evidence that attachment orientations act as moderators of the relationship between caregiver burden and later depressive symptoms.

Being securely attached does not preclude caregivers from feeling overly burdened with the ongoing and constant care of a partner who has just had an acute coronary event. What attachment orientations do seem to account for is the ability to regulate emotion. In times of crisis it appears that anxiously attached caregivers experience greater distress, perhaps because they perceive the caregiving situation as overwhelming and as depriving them of having their own needs fulfilled (Shaver et al., 2010). As anxiously attached people are often motivated by self-focused attention and worries (Erez, Mikulincer, van Ijzendoorn, & Kroonenberg, 2008; B. C. Feeney & Collins, 2001; Mikulincer & Shaver, 2007), they may become increasingly distressed when consumed by their ill partners' needs, which must take precedence over their own.

Contrary to one of the study's hypotheses, caregivers with higher attachment avoidance did not differ from those with lower avoidant attachment in terms of the degree of caregiver burden or the relationship between burden and depressive symptoms. Caregivers high on attachment avoidance did not express the emotional detachment that was predicted even when experiencing caregiving overload. This finding is in opposition to the claim that avoidant attachment is associated with suppression of negative affect (J. A. Feeney & Ryan, 1994; Mikulincer et al., 2003). The discrepancy in findings may be due to the fact that many studies have focused on brief laboratory-

induced stressors (e.g., watching a sad movie, delivering a speech, working on a complicated puzzle) that did not bear personal consequences for the individuals. The present study focused on a real-life chronic stressor that creates major and lasting upheavals in both the patient and caregiver's life (Devins, Edworthy, Klein, Paul, & Mandin, 1993). Experiencing a partner's life-threatening illness—and being placed in the role of caretaker—may make it more difficult for caregivers who are high on avoidant attachment to suppress their distress and stay emotionally detached, especially as the caregiving situation places greater demands on the caregiver during the first months at home. This idea is congruent with previous findings showing that under intense stress, deactivating strategies are less effective than activating strategies in helping to regulate distressing emotions (e.g., Berant, Mikulincer, & Florian, 2001; Braun, Mikulincer, Rydall, Walsh, & Rodin, 2007; Wijngaards-de Meij et al., 2007). When facing a stressor that has real consequences for one's future, deactivating the attachment system may no longer be helpful or even possible.

Although the current study has some distinct strengths, including a prospective, longitudinal design of caregivers facing a severe family crisis, it nonetheless has limitations. We deliberately focused on caregivers' *subjective* feelings of burden and not on objective measures of burden, which may reflect additional aspects of caregiver burden. Because of gender differences in the prevalence and age of onset of heart disease, a decision was to include only male patients and female caregivers, making it impossible to untangle the role of gender with patient-partner social role. Other factors that limit generalizability were that all couples were heterosexual, economically well-off, and motivated to participate in a psychological study at a time of high stress. Moreover, levels of caregiver burden and depressive symptoms were low, possibly underestimating effects. Therefore, we cannot make generalizations to samples of caregivers with relatively high levels of depression or caregiver burden. Although a longitudinal design was used, caregiver burden was assessed only at one time point. It is plausible that the association between burden and depression would change over time, as both partners adjust to their new situation as providers and receivers of care; future studies would be well-advised to assess these dynamics over longer time periods. Future studies should also examine other relationship variables, such as emotional and instrumental support, as they would likely add to the understanding of the dynamics among attachment, burden, and depression. It is possible that caregivers' ability to recruit support may explain why burden was more strongly associated with depression among the highly anxiously attached caregivers.

Despite these limitations, the findings have important theoretical implications that could directly affect recommendations for clinical practice. Insecurely attached caregivers' coping efforts may be less effective in lowering distress when they are struggling with their partners' illnesses. Thus, assessing the attachment orientations of the caregivers with a brief measure at the time of their partners' hospitalizations may provide clues as to how to help caregivers cope with their role as caregivers. Future research on how attachment influences recovery from serious illness would therefore do well to consider attachment as a moderating influence and not simply as an individual difference variable that directly predicts outcomes. In sum, integrating attachment theory with

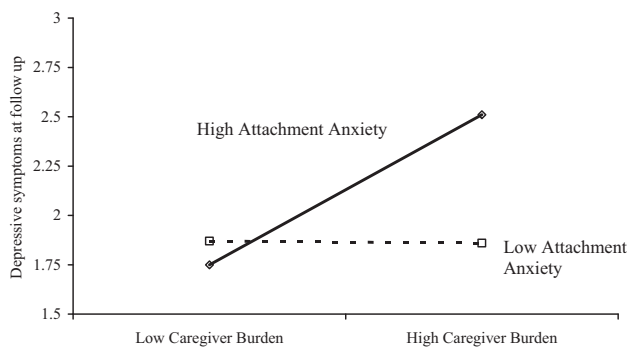


Figure 2. Significant interaction of burden and attachment-related anxiety for depressive symptoms at follow-up. The significant slope is presented in bold line, and the non-significant slope is presented in broken line.

health psychology is likely to enrich the research enterprise all around.

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