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Adult Attachment and Physical Health

Paula R. Pietromonaco and

University of Massachusetts, Amherst

Lindsey A. Beck

Emerson College

Abstract

This article examines how individual differences in adult attachment shape regulatory strategies and relationship behaviors, which in turn influence health-related responses, behaviors, and outcomes. We review links between attachment and physiological responses to stress (e.g., hypothalamic-pituitary-adrenal axis responses, cardiovascular responses, immune responses), health behavior (e.g., substance use, diet), and downstream health and disease outcomes. Recent evidence suggests that attachment insecurity (attachment anxiety and/or attachment avoidance) is associated with dysregulated physiological responses to stress, risky health behaviors, susceptibility to physical illness, and poorer disease outcomes. These associations depend, in part, on the relationship context, including the other partner's attachment style and behavior. We suggest that a dyadic approach considering both partners' attachment styles and behaviors will enhance interventions to promote health.

Keywords

attachment; health; relationships; stress; physiology

Supportive, high quality close relationships, including marital relationships, have been consistently linked to better health [1,2]. Individuals' perceptions of their relationship partners as available and responsive, which are key components of attachment security, may be critical for this link [3,4]. This article focuses on how individual differences in adult attachment shape regulatory strategies and relationship functioning in ways that impact health-related biological responses to stress and health behavior, which, in turn, contribute to downstream physical health outcomes.

Why Attachment Matters for Health

The attachment system is closely tied to how people regulate affect, particularly when they are threatened [3]. Under threat, people often seek a close partner for comfort and support,

Correspondence concerning this article should be addressed to Paula Pietromonaco, Department of Psychological and Brain Sciences, 135 Hicks Way, University of Massachusetts, Amherst, MA 01002. Contact: monaco@psych.umass.edu.

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which can help them cope with distress and return to a calmer state. This pattern is typical for individuals who are securely attached and expect that partners will be available and responsive to their needs. In contrast, individuals who are avoidantly attached expect that partners will be less available and less responsive, and they tend to cope by minimizing distress and retreating from others. Individuals who are anxiously attached desire excessive closeness and worry that partners will not be sufficiently responsive, and they tend to cope by persistently signaling their distress and seeking excessive reassurance. These affect regulation strategies are linked to overall emotional health, perceptions, and behavior in close relationships, as well as the ability to regulate one's behavior, including health protective or damaging behaviors [5].

The conceptual framework in Figure 1 indicates that individuals' attachment styles contribute to regulatory strategies and relationship behavior, and that these factors, in turn, influence mediating mechanisms including health-related physiological responses to stress (e.g., cortisol patterns, cardiovascular reactivity, immune responses), affect, and health behavior, which provide a bridge to later health endpoints. Figure 1 includes two partners to highlight the dyadic nature of attachment relationships, and to illustrate that partners can influence each other at any point in the process. For example, during difficult interactions (e.g., relationship conflicts), one partner's avoidance may influence the other partner's physiological responses to stress. Our review focuses on connections between adult attachment and health-related biological responses to stress, health behavior, and physical health endpoints. As shown in the figure, earlier experiences (e.g., childhood attachment or adversity) can shape not only adult attachment [3,6], but also can alter biological responses to stress [7] and predict physical health outcomes in adulthood [8,9]. Thus, the link between adult attachment and health may be partially molded by earlier experiences and their influence on biological mediators and physical health.

Biological Responses to Stress

We focus on three types of biological responses to stress that have been linked to adult attachment: hypothalamic-pituitary-adrenal (HPA) axis responses, cardiovascular responses, and immune responses.

HPA Axis Responses

Cortisol is a steroid hormone released via the HPA axis, and its release affects metabolic, immune, and nervous systems. Although the release of cortisol prepares the body to respond to acute demands, the repeated release of cortisol in response to chronic stressors can disrupt the normal functioning of the HPA axis and associated biological systems [10,11] in ways that potentially influence longer-term health outcomes. Recent evidence suggests that cortisol responses to acute stressors also predict later health: A study of over 400 adults found that cortisol reactivity to acute cognitive stress tasks predicted increased coronary artery calcification over time [12] and decreased leukocyte telomere length over 3 years [13]. This evidence suggests that cortisol responses to chronic stress and to acute stress may have downstream implications for health.

Findings generally indicate that anxiously attached individuals show exaggerated cortisol reactivity [14–17], although exceptions exist [18], as well as higher daily levels of cortisol [19]. Findings for attachment avoidance are inconsistent; avoidance has been associated with higher cortisol in response to conflict discussions [15], but other work has not found this association [14].

Cortisol responses also vary with the relationship context, including the partner's attachment style and the interplay between a person's own attachment style and their partner's attachment style or behavior. For example, newly-married wives who were more anxiously attached who had husbands who were more avoidantly attached showed exaggerated cortisol reactivity in anticipation of a conflict discussion [20]. Other work suggests that individuals faced with a stressor may respond differently to their partner's behavior depending on their own attachment style: Women who had undergone a stressful laboratory task showed faster cortisol recovery when their male partners used more positive dyadic coping (e.g., by showing empathic understanding, solidarity, validation, or active listening) when interacting after the stressor, but more anxiously attached women benefitted less [17]. This work suggests that anxiously attached individuals may be more physiologically taxed under some conditions. An important question for future work is whether the cumulative effects of attachment-related cortisol patterns influence later health outcomes.

Cardiovascular Responses

Chronic patterns of cardiovascular reactivity to stress are associated with increased risk for cardiovascular disease [21]. Meta-analytic evidence indicates that even cardiovascular reactivity to acute cognitive stressors in the lab predicts increased cardiovascular risk (e.g., hypertension, coronary artery calcification) up to 3 or more years later [22].

Insecure attachment has been associated with distinctive cardiovascular responses to stress. In one study, dating partners viewed a distressing film and then prepared for and later had a discussion about the film [23]. Cardiovascular threat responses (sympathetic arousal together with increased vascular resistance), indexed as total peripheral resistance (TPR), were assessed throughout the procedure. During the conversation, avoidant individuals showed blunted cardiovascular threat responses. Furthermore, individuals with more avoidant partners showed increased TPR (greater threat) when preparing for the conversation if they had been instructed to suppress their emotions, compared to individuals instructed to express their emotions. Individuals not instructed to suppress or express emotion showed similar levels of TPR regardless of their partner's avoidance. These findings suggest that individuals with more avoidant partners experience greater physiological threat under conditions (e.g., suppressing their feelings) that make it difficult to effectively engage their avoidant partners during an interaction.

Other studies, however, using different measures and methods have found somewhat different findings. For example, married or cohabiting romantic partners with a more avoidant partner showed *less* cardiovascular reactivity (assessed as a composite of 5 cardiovascular indicators) when discussing a relationship conflict, especially when one member of the couple was instructed to suppress emotions; those with an anxious partner showed more cardiovascular reactivity, regardless of emotion regulation condition [24]. In

another study of married or cohabiting couples, more avoidantly attached individuals showed less reduction in autonomic nervous system (ANS) arousal (indexed via inter-beat-intervals from heart rate assessments) when they received support during a support-seeking interaction unrelated to the relationship or partner [25]. In contrast, anxiously attached men (but not women) showed reduced ANS arousal when they received more support. Women with more anxiously attached partners also showed reduced ANS arousal when they received more support, perhaps because anxiously attached men were more engaged when providing support. Additional work is needed to determine whether the different patterns across studies result from differences in experimental contexts, cardiovascular measures, or both, or whether such differences might be explained by moderating variables (e.g., both partners' attachment security, relationship satisfaction, or commitment). For example, anxiously attached individuals who need greater responsiveness from their partner may show greater reactivity when their partner is avoidant [20].

Immune Responses

Dysregulated immune function is associated with increased risk for chronic diseases, including cardiovascular disease and cancer, as well as earlier mortality, and offers a plausible pathway linking close relationships to health [26]. For example, spouses in more distressed marriages showed decreases in immune function over 2 years [27]. Relationship expectations and perceptions associated with attachment insecurity likely contribute to this link. Consistent with this idea, women with greater attachment avoidance (but not attachment anxiety) evidenced lower natural killer cell cytotoxicity (NKCC, an immune marker) across four timepoints during a one-year period, even after accounting for factors such as smoking, alcohol use, and perceived social support [28]. (Neither form of attachment was associated with a second immune marker, lymphocyte proliferative response, a functional test of the immune response [e.g., to specific antigens]). These findings align with previous work showing disrupted inflammatory responses (assessed via Interleukin-6) among more avoidant spouses in relation to a conflict discussion [29], and slower wound healing among more avoidant women [30]. Anxiously attached individuals also have shown altered immune function, including fewer T-cells across 2 days [31], greater antibody titers to the Epstein-Barr virus (indicating weaker cellular immune system control over the virus) at two assessments [32], slower recovery from induced skin wounds for men but (surprisingly) faster recovery for women [30], and increases in the inflammation marker, Interleukin-6, after cardiac surgery, particularly among those with poorer sleep quality [33].

Health Behavior

Insecure attachment has been linked to a variety of risky health and lifestyle behaviors, including increased drug and alcohol use, riskier sexual behavior, poorer eating habits, and less physical activity [34–36], and among diabetic patients, lower likelihood of following diet and exercise regimens [37,38]. Avoidance is associated with less seat belt use [35] and less use of health care services among individuals with three or more chronic illnesses [38]. More needs to be known about how health behaviors unfold in attachment relationships, including identifying which types of partner behaviors are effective for people with which attachment styles [4,5].

Physical Health

Strong evidence linking adult attachment to physical health endpoints is scarce. Cross-sectional evidence from a nationally-representative sample of over 5,600 participants suggests that attachment anxiety (but not avoidance) predicts higher likelihood of self-reported chronic pain as well as stroke, heart attack, and high blood pressure, after controlling for the link between attachment and psychiatric disorders [39,40]. Prospective studies are needed, however, to clarify the direction of causality as well as to identify other factors that may account for this association.

Two additional studies suggest that attachment insecurity is associated with poorer disease outcomes, and that, under some conditions, avoidance may confer increased risk. One study of 96 breast cancer survivors indicated that attachment anxiety and avoidance were both associated with lower quality of life. The link between avoidance and quality of life, however, was more pronounced among avoidant breast cancer survivors who also showed poorer physiological emotion regulation capacity (assessed via resting respiratory sinus arrhythmia) [41]. Among 218 women with inflammatory bowel disease (IBD), both anxious and avoidant attachment were associated with greater disease severity [42]. Furthermore, women higher in avoidance who also had more severe IBD were more likely to experience negative affect, again suggesting greater vulnerability for some avoidant women.

Other work suggests that more complex models may be needed when evaluating links between attachment and physical health. A study of 213 individuals found that general stress mediated the links between attachment anxiety or avoidance and poorer self-reported health; childhood socioeconomic status also predicted attachment anxiety (but not avoidance) in these mediation models [43].

Future Directions and Conclusions

A growing literature indicates that adult attachment insecurity is associated with dysregulated physiological responses to stress, risky health behaviors, and susceptibility to serious physical illnesses. Findings vary in whether attachment anxiety, avoidance, or both are connected to relevant health outcomes, but it is clear that attachment insecurity is associated with greater health risks. In addition, the link between individuals' attachment styles and health depends, in part, on the situational context, including their partner's attachment style and behavior. Future work is needed to further clarify how partners influence each other's physiological responses to stress and behavior in ways that shape downstream health outcomes [44,45]. Furthermore, prospective studies in which attachment measured at earlier timepoints predicts potential mediators and health outcomes at later timepoints will help disentangle causal direction and identify key mediating pathways. In addition, a dyadic approach that considers not only individuals' own attachment style but also their partner's characteristics will enhance interventions to promote health. For instance, findings suggest that couple-based interventions for pairs in which one or both partners are insecurely attached may need to be tailored differently from those in which both partners are securely attached [4]. Although the link between attachment and health involves a complex interplay among individual and partner characteristics as well as features of the

situation, further work in this emerging area will open new avenues for health-promoting interventions.

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Highlights

- Attachment insecurity in adulthood has been linked to poorer physical health
- Describes a conceptual framework with pathways mediating this link
- Mediators include dysregulated biological responses and riskier health behavior
- Relationship context (e.g., partner's attachment) moderates attachment–health link

Figure 1. A conceptual model linking attachment style to physical health via multiple mediators Attachment styles promote strategies for regulating affect and the self, as well as behavior patterns in close relationships, which in turn, influence how individuals respond to stress at a physiological level (e.g., cortisol reactivity/recovery, cardiovascular reactivity, immune responses). Physiological responses to stress and health behavior contribute to subsequent health outcomes over time. Both partners may influence each other's responses and outcomes at any point. Two components may contribute to the attachment–health link but are outside the scope of this article: (a) early experiences such as childhood attachment may shape adult attachment, as well as other variables and links in the model, and (b) attachment insecurity is associated with greater negative affect, including dysphoria, depression, and anxiety, which in turn is associated with greater inflammation and disease risk. Adapted from “Health and Attachment Processes” by P. R. Pietromonaco, C. C. DeVito, F. Ge, & J. Lembke, 2015. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and research: New directions and emerging themes*. NY: Guilford. Reprinted with permission of Guilford Press.