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Attachment and Adjustment in Adolescents and Young Adults with a History of Pediatric Functional Abdominal Pain

Kelsey T. Laird, MS,

Vanderbilt University

Kristopher J. Preacher, PhD, and

Vanderbilt University

Lynn S. Walker, PhD*

Vanderbilt University

Abstract

Objectives—This study tested predictions of the Attachment-Diathesis Model (ADM) of Chronic Pain in a cross-sectional sample of adolescents and young adults with a history of childhood functional abdominal pain (FAP). ADM posits that attachment anxiety is a diathesis for poor adjustment (physical health, mental health, and functioning) in the context of chronic pain, and that pain self-efficacy, pain threat appraisal, and passive coping mediate this effect.

Methods—Participants (N = 261) were recruited from a database of consecutive new patients evaluated for abdominal pain at a pediatric gastroenterology clinic. Participants' mean age at the follow-up assessment was 21 years. Structural equation modeling was used to test the fit of our conceptual model to the data.

Results—Model fit was good (CFI = .971, TLI = .940, RMSEA = 0.067). Attachment anxiety significantly predicted poorer health in both the mental and physical domains. Model fit was consistent with our hypothesis that pain self-efficacy mediates the effect of attachment anxiety on passive coping, and that passive coping, in turn, mediates the effect of pain self-efficacy and pain threat appraisal on mental and physical health.

Discussion—Among individuals with a childhood history of FAP, those with anxious attachment may be at higher risk for poor physical and mental health. Pain beliefs and coping may mediate the relation between anxious attachment and health outcomes and may serve as effective targets for intervention in chronic pain.

Keywords

attachment; chronic pain; pain beliefs; passive coping; quality of life

*Corresponding Author: Lynn S. Walker, PhD, Professor of Pediatrics, Director, Division of Adolescent and Young Adult Health, 2146 Belcourt Ave, Vanderbilt University School of Medicine, Nashville TN 37212, phone: 615.936.6502, fax: 615.936.0202, lynn.walker@vanderbilt.edu.

Attachment and Adjustment in Individuals with a History of Functional Abdominal Pain

Although it has long been understood that the nature of an infant's interactions with its caregiver has life-long influences on social and emotional development, only recently has it become clear that these interactions significantly influence physical health across the lifespan as well. Bowlby¹⁻³ defined attachment as an aspect of personality that is formed in childhood based on the degree of responsiveness, consistency, and sensitivity of primary caregivers towards the infant in the face of a perceived threat. Bowlby hypothesized that the nature of the caregiver's response influences the individual's mental representations of the self (e.g., as worthy or unworthy) and of others (e.g., as trustworthy or untrustworthy).

These mental representations provide the basis for two dimensions of attachment. Individuals high in attachment anxiety are thought to doubt their self worth and be overly reliant on the support and approval of others¹⁻³. Individuals high in avoidant attachment, by contrast, view others as unavailable and unsympathetic, are uncomfortable with closeness, and view themselves as more self-sufficient than individuals with anxious attachment⁴. Individuals low in both attachment anxiety and attachment avoidance are said to have "secure" attachment. Compared to individuals with insecure (avoidant or anxious) attachment, these individuals appraise threats more accurately and have greater self-efficacy regarding their ability to manage threat⁴.

Although the construct of attachment was initially applied to infants, it has since proven useful in understanding close relationships between adults⁵. Insecure attachment in adulthood has been linked to adverse mental health outcomes^{6,7}, although anxious attachment has been more consistently associated with negative affect than has avoidant attachment. Insecure attachment is also associated with decreased physical health in both adolescents^{8,9} and adults¹⁰⁻¹⁴, although again, evidence for the relation between attachment anxiety and physical health is stronger than that for attachment avoidance^{9,15-17}. Because the attachment system is activated by the threat of pain, researchers have begun to investigate the role attachment may play in adjustment to chronic pain.

Mikail and colleagues¹⁸ proposed that individuals with insecure attachment are less able to cope with the stress presented by chronic pain because of their maladaptive mental representations. Specifically, the negative perceptions of self held by anxiously attached individuals may lead them to lack confidence in their ability to deal with the threat invoked by pain. Such individuals are said to have low "pain self-efficacy"⁷⁴.

Several recent empirical studies have verified that among individuals with chronic pain, insecure attachment is associated with poor mental and physical health outcomes^{15,19,20}. Potential mechanisms by which insecure attachment may result in poor adjustment in individuals with chronic pain include increased perception of the pain as threatening to one's well-being (that is, greater "pain threat")^{19,21} and lower pain self-efficacy^{16,22}. High pain threat appraisals and low pain self-efficacy, in turn, have been associated with passive coping in individuals with chronic pain²³, which in turn has been shown to exert direct negative effects on long-term health²⁴⁻²⁶. Taken together, this evidence suggests a two-step

mediation process in which attachment affects pain threat appraisals and pain self-efficacy, which in turn affect coping, which in turn affects mental and physical health.

Meredith and colleagues²⁷ recently proposed a model of such a process in their Attachment-Diathesis Model of Chronic Pain (ADM). The ADM is a heuristic model of adult attachment and chronic pain based on current empirical research. In the first step of the model, pain is hypothesized to trigger attachment-related processes including appraisal of pain (“pain threat”) and appraisals of one’s own capacity for coping with the pain (“pain self-efficacy”).

The second step of the model invokes the stress appraisal and coping framework advanced by Lazarus and Folkman²⁸. This framework emphasizes the importance of the individual’s perceptions in evaluating potential stressors²⁹. One major subjective evaluation in this process is the individual’s self-efficacy for effectively coping with a particular stressor. Lazarus and Folkman distinguish between problem-focused coping self-efficacy, which refers to the individual’s perceived ability to alter circumstances to make them more desirable (in this case, to alleviate pain), and emotion-focused coping self-efficacy, which refers to the individual’s perceived ability to accept and adjust to circumstances (i.e., to accept and adjust to pain). According to this framework, one’s self-efficacy predicts the nature of coping strategies (e.g., active or passive) that an individual will use in confronting a particular stressor.

Because pain due to functional disorders such as FAP is largely uncontrollable (and therefore cannot be alleviated by problem-focused coping^{30,31}), emotion-focused coping self-efficacy is a particularly important aspect of pain self-efficacy. Work in our lab supports the hypothesis that among children with functional abdominal pain, low emotion-focused pain self-efficacy is associated with increased passive coping – that is, coping characterized by passivity, negative cognitions, and lack of active problem solving²⁶.

In the third step of the model, coping responses are hypothesized to impact one’s adjustment to pain. This stage resembles the second part of a model of pain appraisal and coping proposed and tested by Walker and colleagues in a prospective study of 133 children with abdominal pain²⁶. In this dataset, passive coping predicted significant increases in both episode-specific somatic distress and episode-specific emotional distress. This distress, in turn, predicted increased somatic symptoms, disability, and depressive symptoms at 3 month follow up. The last two steps of the model also closely resemble the Fear-Avoidance model³², in which pain-related fear (i.e., “pain threat”) leads to avoidant coping and hypervigilance, which in turn lead to increased depression and disability.

The current study uses the ADM as a framework for investigating the role of pain appraisals, pain self-efficacy, and passive pain coping in the relation between attachment and adjustment in a sample of adolescents and young adults with a history of functional abdominal pain. Consistent with a biopsychosocial approach, we define “adjustment” not only as the individual’s experience of pain but as his or her overall physical health, mental health, and functioning^{33,34}.

In this study we tested a two-step mediation model derived from ADM in which: (1) cognitive appraisals (pain threat and pain self-efficacy) are hypothesized to mediate the

relation between attachment anxiety and passive coping with pain, and (2) passive coping with pain is hypothesized to mediate the relation between cognitive appraisals and health related quality of life (HR-QOL; see Figure 1). Because we did not expect these relationships to be entirely explained through the proposed indirect pathways, we also included direct effects in the model. We tested the model in a sample of adolescents and young adults with a childhood history of functional abdominal pain (FAP), a common pediatric pain disorder associated with increased risk for impaired HR-QOL³⁵.

Evidence for the effect of attachment anxiety on adjustment to physical discomfort is stronger than that for attachment avoidance^{9,15–17}. Therefore, we focused on the relation of attachment anxiety to health outcomes in our model. We hypothesized that greater attachment anxiety would be associated with poorer mental and physical HR-QOL. We also hypothesized that higher levels of anxious attachment would be associated with appraisals of higher pain threat and lower pain self-efficacy. Moreover, we predicted that these pain-related appraisals would be associated with more frequent use of passive strategies for coping with pain, which in turn would be associated with poorer mental and physical health among adolescents and young adults with a childhood history of FAP.

Method

Participants

This study reports data that were collected as part of a comprehensive evaluation of health outcomes of pediatric patients with chronic FAP; other aspects of the evaluation have been reported elsewhere^{35–40}. Participants were recruited from an existing database of new patients who presented to a tertiary pediatric gastroenterology clinic for evaluation of abdominal pain between 1993 and 2004 and enrolled in studies at that time^{26,41}. Eligibility criteria for these earlier studies included abdominal pain of at least three months duration, absence of other chronic illness or disability, and absence of an organic disease diagnosis for abdominal pain from the referring physician. Participants were eligible for the follow-up study of health outcomes on which the current study is based if they were aged 12 years, at least 4 years had elapsed since initial study enrollment, no evidence of significant organic disease was found in the medical evaluation at the tertiary clinic, and they reported no major chronic disease (e.g., inflammatory bowel disease, multiple sclerosis). Data for the current study were collected between 2007 and 2010. Demographic information is reported in Table 1. At the time of the current assessment, 217 participants (83.10% of our sample) endorsed experiencing abdominal pain in the previous three months.

Procedure

Recruitment—The sample for the current study was drawn from a database of 760 former FAP participants who met eligibility criteria for the follow-up study of health outcomes. They were sent letters with a card to return to decline further contact. Six declined contact, leaving 754 potential participants. Of these, 261 (34%) could not be located, 54 (7%) declined participation, 40 (5%) could not be scheduled, 3 (.4%) were excluded due to recent self-reported onset of chronic disease, and 122 (16%) were excluded because they did not complete the measure of attachment (which was emailed to participants separately from

other measures), leaving a sample of 274, representing 36% of those eligible for the health outcomes study. Participants and nonparticipants in the outcomes study did not differ significantly on sex, age, or baseline pain severity. Participants with and without a completed attachment measure did not differ significantly on sex or scores on appraisals or coping. However, participants with a completed attachment measure, compared to those without the measure, were significantly younger (mean(M) age = 20.21, SD = 3.03 vs. M = 21.84, SD = 3.97, $t = -4.65$, $p < .005$) and had significantly better QOL as indicated by both the Physical and Mental Component Summary scores of the SF-36 (Physical M = 83.63, SD = 14.00, vs. M = 78.85, SD = 19.30, $t = 2.84$, $p < .005$; Mental M = 79.02, SD = 15.28, vs. M = 72.25, SD = 19.87, $t = 3.85$, $p < .005$). The current study included only participants who were aged 15 (N=261) at the follow-up assessment.

Protocol—The SF-36 was administered by telephone by a trained interviewer. Participants completed phone interviews in a private place to ensure privacy and confidentiality. Attachment, pain threat appraisal, pain self-efficacy, and pain coping were assessed online via self-report. Informed consent was obtained from all participants. Parental consent was obtained for participants under the age of 18 years. The Institutional Review Board approved all procedures.

Measures

The Experiences in Close Relationships Scale (ECR) is a 36-item questionnaire assessing attachment anxiety (18 items) and attachment avoidance (18 items). The validity of the ECR has been demonstrated in numerous studies^{42,43}. Participants indicate their level of agreement with a series of statements on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree). Example items are “I worry about being rejected or abandoned” (attachment anxiety scale) and “I don’t feel comfortable opening up to others” (attachment avoidance scale). Scale scores are calculated by taking the average score of the items from each scale. Higher values indicate a greater degree of attachment anxiety or attachment avoidance. To make the wording of the ECR more appropriate for the adolescents in our sample, we replaced the words “close relationship partners,” “relationship partners,” and “my partners” with the words “people I care about.” No participant missed more than one item on the attachment anxiety scale. In cases of missing data, the average of the completed items was taken in order to form a composite score. Cronbach’s alpha was .93 for attachment anxiety in the current sample.

The 36-item Medical Outcomes Study Short Form Health Survey (SF-36) measures HR-QOL and yields two summary scores⁴⁴. The psychometric properties of the SF-36 have been shown to be excellent in a variety of populations^{45,46}. The Physical Component Summary (SF-36-Physical) measures overall physical functioning and health including bodily pain. The Mental Component Summary (SF-36-Mental) measures general mental health. Each scale is directly transformed into a 0–100 scale, with each question carrying equal weight. Higher values indicate better health. If any item was missing, the subscale for that item was counted as missing. This resulted in SF-36-Mental data being omitted for two participants. Cronbach’s alpha was .86 for the SF-36-Physical and .87 for the SF-36-Mental in the current sample.

The Pain Beliefs Questionnaire is a 32-item measure that assesses appraisals of pain seriousness and perceived coping self-efficacy. Twenty items assess perceived seriousness of the pain condition (pain threat appraisal; e.g., “My stomach aches mean I have a serious illness”). Six items assess emotion-focused pain coping self-efficacy (henceforth referred to as “pain self-efficacy”), which refers to the individual’s perceived ability to accept and adjust to pain (e.g., “I know I can handle it no matter how bad my stomach hurts”). Response options range from 0 (not at all true) to 4 (very true). Mean scores are created for each scale (pain threat appraisal and pain self-efficacy). Reliability, validity, and sensitivity to treatment have been documented for the PBQ scales^{26,47–51}. Pain threat appraisal was calculated if at least 16 out of 20 questions were answered; pain self-efficacy was calculated if at least 5 out of 6 questions were answered. In these cases, the mean of the completed remaining items was taken to form the composite score. Cronbach’s alpha was .91 for pain threat appraisal and .79 for pain self-efficacy in the current sample.

Passive Coping with Pain—For the current study, we defined passive pain coping as a latent construct comprising three subscales of the Pain Response Inventory (PRI; described below) as well as total score on the Pain Catastrophizing Scale (PCS). *The PCS* is a 13-item scale measuring pain catastrophizing⁵². Example items are “When I’m in pain, it’s terrible and I think it’s never going to go away” and “When I have pain, I feel I can’t go on.” Response options range from 0 (not at all) to 4 (extremely). Responses are summed, with higher values indicating greater levels of catastrophizing. The scale demonstrates high criterion-related, concurrent, and discriminant validity⁵³. Sum scores were calculated if at least 12 out of 13 items were completed. In these cases, the mean of the completed items was calculated and then multiplied by 13 in order to get an unbiased sum score. Cronbach’s alpha was .92 in the current sample. *The PRI* is a 60-item self-report questionnaire that assesses responses to abdominal pain⁵⁴. The PRI has 13 subscales, each comprising three to six items. The stem for each item is, “When you have a bad stomach ache, how often do you...” The subscales (with sample items) of the Passive Coping Factor include: Behavioral Disengagement (e.g., give up since nothing helps); Catastrophizing (e.g., think to yourself that it’s going to get worse); and Self-isolation (e.g., stay away from people). Response options range from never (0) to always (4). A mean score ranging from 0 to 4 is calculated for each subscale, with higher scores indicating greater frequency of the response. Empirical validation of the PRI and a list of all items for each subscale are reported by Walker and colleagues⁵⁴. Self-isolation, Behavioral Disengagement, and Catastrophizing were each calculated if at least 4 out of the 5 items were answered. In these cases, the mean of the completed items was taken in order to form the subscale score. Coefficient alpha levels of the subscales ranged from .80 to .93 in the current sample.

Data Analysis

Descriptive and correlational analyses were conducted using IBM SPSS version 19.0. Confirmatory factor analyses and structural equation modeling were conducted using Mplus Version 6⁵⁵. The distributions of scores on several variables (i.e., the SF-36-Mental, SF-36-Physical, pain threat appraisal, and pain self-efficacy) violated the assumption of normality. Therefore we used robust maximum likelihood estimation to adjust the standard errors for

nonnormality. Full information maximum likelihood estimation was used because missing data were assumed to be missing at random.

Figure 1 illustrates our hypothesized model, which is based on the ADM²⁷. The model flows from left to right, with an arrow representing a hypothesized causal impact of one variable on another. The model represents a two-stage mediation process. In the first stage of the model, attachment anxiety is hypothesized to increase perceived pain threat and decrease pain self-efficacy. The second stage of the model follows Lazarus and Folkman's²⁸ work by postulating that maladaptive cognitive appraisals (low pain self-efficacy and high perceived pain threat) result in passive emotional and behavioral responses, which in turn predict inferior mental and physical health.

Results

Demographic Characteristics

The sample comprised 261 adolescents and young adults between the ages of 15 and 31 (see Table 1). Correlations between all pairs of study variables are presented in Table 2.¹

Measurement Model

Confirmatory factor analysis indicated good fit of a one-factor model to passive coping indicators ($\chi^2 = .672$, $df = 2$, $p = .715$). The fit statistic is the root mean square error of approximation [RMSEA], and by convention a value lower than .08 is considered an acceptable fit⁵⁶. The RMSEA for our proposed model is .000 (90% CI = .000, .079). The comparative fit index [CFI] is 1.000, and the Tucker-Lewis index [TLI] is 1.013. The residual analysis did not indicate any problems (standardized root mean square residual [SRMR] = .008).

Structural Equation Modeling

Figure 1 includes the unique relationships between the variables on the basis of structural equation modeling. Structural equation modeling indicated acceptable fit of our proposed model to the data, and that close fit cannot be rejected ($\chi^2 = 36.837$, $df = 17$, $p = .004$; CFI=.971, TLI=.940, RMSEA=.067 [90% CI = .037, .097]; SRMR = .031). Standardized parameter estimates are provided in Figure 1.

Structural equation modeling results indicated that, consistent with our theoretical model, pain self-efficacy significantly mediated the relation between attachment anxiety and passive pain coping (standardized indirect effect estimates = .085 (CI = .036, .134)²). Furthermore, passive pain coping significantly mediated the effects of pain threat appraisal and pain self-efficacy on physical health (standardized indirect effect estimates = 7minus;

¹At the editor's suggestion, we evaluated the correlation of age with all other study variables. There was a statistically significant correlation between age and pain self-efficacy ($p=.050$), suggesting that individuals who were older may have been more confident in their ability to effectively cope with pain. This effect was small ($r=.126$). Age was not significantly correlated with any other study variables. We also conducted moderation analyses; age did not significantly moderate the effect of attachment anxiety on any study variables.

²This and all subsequent confidence intervals are 95% bias-corrected bootstrap intervals based on 5000 resamples unless otherwise noted.

175 (CI = $-.314, -.037$) and .156 (CI = $.026, .286$), respectively). Similarly, passive pain coping significantly mediated the effects of pain threat appraisal and pain self-efficacy on mental health (standardized indirect effect estimates = $-.174$ (CI = $-.307, -.042$) and .155 (CI = $.029, .282$), respectively). An additional direct effect of attachment anxiety on mental health was supported. Unexpectedly, the relation between attachment anxiety and pain threat appraisal was not statistically significant (two-tailed $p=.132$).

Discussion

Our results demonstrated that greater attachment anxiety in adolescents and young adults with a history of functional abdominal pain was associated with poorer QOL in both the mental and physical health domains. Moreover, the association between attachment anxiety and QOL was consistent with the ADM model, in which pain is thought to trigger attachment-related processes including pain self-efficacy, which in turn influences pain coping, which affects adjustment to pain. These findings provide further support for the theory that individuals with anxious attachment generally perceive themselves as lacking the ability to effectively cope with pain. These low appraisals of pain self-efficacy may lead anxiously attached individuals to utilize passive strategies for coping with pain, which in turn may compromise their mental and physical health.

Unexpectedly, pain threat appraisal was not significantly related to attachment anxiety in our model. This finding differs from the results of previous studies showing that anxiously attached individuals are more likely to perceive pain as highly threatening^{16,19,27}. It is possible that our study lacked the statistical power to detect this effect.

It is of note that age did not significantly moderate the effect of attachment anxiety on any of our other study variables. This suggests that the effect of attachment anxiety on pain appraisals, pain self-efficacy, coping, and HR-QOL may be similar for older adolescents and young adults. Studies with larger and more diverse samples are needed to further explore the relationship between attachment, coping, and health over the lifespan.

One strength of our study is the use of structural equation modeling. Structural equation modeling is a very general and powerful multivariate technique. Compared to multiple regression, it allows for more flexible assumptions, the use of latent variables to reduce the effects of measurement error, the testing of whole models in addition to individual coefficients, and the testing of models with multiple dependent variables. To our knowledge, this study is the first to use structural equation modeling to assess the potential role of pain appraisal and coping in the impact of attachment on physical and mental health.

One limitation of the study is the cross-sectional nature of the data, which limits what we can conclude about causality. Demonstration of mediation requires measurement over time in order to demonstrate that the relationships within the mediation model unfold in the predicted way over time. However, a recent study found that attachment assessed in infancy prospectively predicts physical health thirty years later¹¹, consistent with our observed effects and their proposed direction. Furthermore, results of at least two longitudinal studies^{57,58} support Bowlby's proposition that attachment is fairly stable across the lifespan.

However, research has shown that stressful life events increase the likelihood that an individual with secure attachment will transition to insecure attachment later in development⁵⁹. Pediatric chronic pain is known to be stressful for both children and parents^{60,61} and stressed parents are less able to consistently provide the support required for the development and maintenance of secure attachment⁶². Therefore, it would be reasonable to expect that the experience of FAP may increase attachment anxiety. Similarly, it would be reasonable to hypothesize that the experience of a functional pain disorder (i.e., pain with no known cause and no universally effective treatment) might decrease pain self-efficacy, increase pain threat appraisal, and increase passive coping with pain. It is also conceivable that the anxiety and depression often associated with chronic illness leads to greater catastrophizing (e.g., higher pain threat), lower self-efficacy, and withdrawal (e.g., passive coping), which may have a negative impact on close relationships and thereby increase anxious attachment. Such effects would be consistent with the downward spiral of pain-associated disability syndrome described by Zeltzer and colleagues^{63,64}.

A second limitation is the self-report of health outcomes. Future studies assessing health using objective health measurements would be useful. A third limitation is our low yield of participants. Participants with a completed attachment measure, compared to those without the measure, were significantly younger and had better mental and physical functioning. Therefore, our results may not generalize to older adults or those with more impaired functioning. A fourth limitation is the relative homogeneity of our sample. Studies with larger and more diverse samples will help determine whether our results generalize to other age groups, ethnicities, and chronic pain populations. Future research should also investigate the impact of social factors (perceived social support, objective responses to pain by others, and modeling of coping and pain behaviors) on adjustment. Social and other important factors such as illness self-management may play an important role in the relation between attachment and adjustment.

In particular, one area that may prove fruitful for future research is the impact of attachment on the patient-provider relationship, and whether certain combinations of attachment styles predict improved treatment responses compared to others. Chronic pain is notoriously difficult to treat^{65–67}. A good patient-provider relationship is essential for successful treatment^{68–73}, yet many of these relationships are fraught with frustration on the part of both physician and patient. Attachment theory suggests that some combinations of patient-provider attachment styles may be more successful than others. The tailoring of treatment plans to individual patients' attachment styles may result in greater satisfaction for both parties and better health outcomes for the patient.

The current findings have important implications for interventions in chronic pain populations because they suggest that individuals with insecure attachment – particularly, those with attachment anxiety – are at risk for poor adjustment in the context of chronic pain. If attachment anxiety then manifests in relationships with significant others and providers in a way that further affects adjustment to pain, interventions that take into account the interpersonal relationships that surround pain may be useful. Furthermore, pain appraisals and coping may serve as effective targets for improving physical health outcomes in chronic pain.

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Figure 1.

Theoretical model predicting mental and physical health as a function of attachment anxiety, pain appraisals, and passive coping in chronic pain. Rectangles denote measured variables. The oval denotes a latent variable (passive coping). Single-headed arrows represent regression paths; double-headed arrows represent residual correlations. Standardized coefficients are included but estimated errors are omitted for visual clarity. All factor loadings are significant at $p < .001$ (two-tailed). Solid paths are significant; dotted paths were hypothesized but not significant at $p < .05$ (two-tailed). Fit statistics: χ^2 ($df=17$, $N=261$) = 36.837, $p = .004$, CFI = .971, TLI = .940, RMSEA = 0.067 (90% CI = .037, .097).

Table 1

Sample characteristics

	N(%) / M(SD) Total Sample (N=261)
Age (years)	20.56 (3.10)
<i>Gender</i>	
Male	88 (33.7)
Female	173 (66.3)
<i>Race</i>	
White	239 (91.6)
African American	16 (6.1)
Asian	2 (.8)
Other	4 (1.5)

Table 2

Observed Pearson correlations among hypothesized predictor and outcome variables

	Attachment Anxiety	Pain Self-Efficacy	Pain Threat Appraisal	PRI	PCS	Passive Coping	SF-36-Mental	SF-36-Physical
Attachment Anxiety	SD = 1.118							
Pain Self-Efficacy	-0.215	SD = .572						
Pain Threat Appraisal	0.097	-0.468	SD = .784					
Passive Coping (PRI)	0.268	-0.459	0.502	SD = .603				
Pain Catastrophizing Scale (PCS)	0.323	-0.466	0.495	0.499	SD = 9.158			
Passive Coping (Latent)	0.356	-0.650	0.649	n/a	n/a	SD = .367		
SF-36-Mental	-0.288	0.215	-0.262	-0.302	-0.367	-0.415	SD = 16.078	
SF-36-Physical	-0.129	0.277	-0.382	-0.327	-0.379	-0.457	0.563	SD = 15.227
Mean	3.305	3.282	1.598	0.752	10.927	0.000	77.508	81.499

Note. Bolded values are significant at $p < .05$. The Passive Coping variable used in our model was a latent variable comprising both the Passive Coping subscale of the PRI and the total PCS score. Across all study variables, percent missing data ranged from .00 – 1.09%.