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Measuring parent beliefs about child acceptance of pain: A preliminary validation of the Chronic Pain Acceptance Questionnaire, parent report

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Abstract

Parent perceptions of and responses to pain have been identified as important factors in understanding pain-related disability among children and adolescents with chronic pain. The ability to “accept” chronic pain rather than focus on ways to avoid or control it has been linked to positive outcomes in chronic pain research. To examine parent beliefs about child acceptance of pain, the Chronic Pain Acceptance Questionnaire, parent report (CPAQ-P) was developed and administered to 195 parents of children with persistent pain evaluated in a multidisciplinary pain clinic. Analyses support the internal consistency of the CPAQ-P ($\alpha = .89$) and one-month stability estimates were acceptable for the total scale score ($\alpha = .72$) and results suggest some responsiveness to change. Exploratory factor analysis identified a two-factor model with four items removed from the original 20-item measure. Confirmatory factor analysis strongly supported the modified version. For construct validity, parent beliefs about child acceptance were negatively correlated with parent pain catastrophizing and parent fear of pain. Greater acceptance was also negatively associated protective parent responses to pain. These results support the CPAQ-P as a promising measure for assessing parent beliefs about child acceptance of pain and reinforce the importance of the social context and parental influence on child functioning.

Keywords

chronic pain; acceptance; child; assessment; parent; social context

Introduction

Chronic pain in children and adolescents is a serious public health concern, affecting approximately 15–25% of youth [13, 30] and impacting the entire family [29]. In an attempt to ameliorate pain-related disability and emotional distress, acceptance-based treatment approaches, which focus on the ability to *accept* pain as opposed to avoid or control it, have been found to be effective [23–25, 38, 39]. Specifically, acceptance of pain has been found to be associated with improved functioning and less distress in adults with chronic pain [5, 19, 20, 28], and acceptance is emerging as an important construct in the treatment of adolescents with chronic pain [42, 43].

The Chronic Pain Acceptance Questionnaire has been identified as a valid and reliable measure of acceptance in both adults (CAPQ; [26]) and adolescents (CAPQ-A; [22]) with

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chronic pain. The CPAQ [26] posits two important dimensions of acceptance, Activity Engagement and Pain Willingness. Activity Engagement assesses an individual's participation in routine daily activities in the presence of pain, while Pain Willingness assesses the degree to which pain is permitted to be a part of an individual's life experience without efforts to control or avoid it.

Beyond an individual's own acceptance of pain, the social context of pain is highly influential on pain and functioning. For children living with chronic pain, parental factors such as distress as well as behavioral responses have been shown to significantly influence children's pain and functional outcomes [4, 6, 22]. Due to the importance of parents, several measures that assess parent beliefs and behaviors in the context of having a child with chronic pain have been developed (e.g., Pain Catastrophizing Scale for Parents (PCS-P; [14]), Bath Adolescent Pain-Parent Impact Questionnaire (BAP-PIQ; [17]), Parent Psychological Flexibility Questionnaire (PPFQ; [21])). These measures allow researchers and clinicians to explore the extent to which parents have adopted certain beliefs or behaviors that may impact child pain-related outcomes. In line with development of these important measures, the aim of the present study is to develop and validate the Chronic Pain Acceptance Questionnaire, parent report (CPAQ-P). In conceptualizing this adaptation, we framed items such that parents were endorsing their beliefs regarding their child's participation in routine daily activities (Activity Engagement) and willingness to allow pain to be a part of their child's life (Pain Willingness). We hypothesize that the CPAQ-P will consist of two factors, 1) Activity Engagement and 2) Pain Willingness. We hypothesize that the total scale and subscales of the CPAQ-P will be internally consistent. To examine construct validity, we will examine associations between acceptance and parent and child factors. Given that acceptance is hypothesized to be a adaptive construct and parent pain catastrophizing [3, 9, 14], pain-related fear [33], and protective responses [18, 31, 32] have all been associated with poor outcomes, we hypothesize that greater parent beliefs of child acceptance will be negatively correlated with these variables. For child functioning, we hypothesize that parent beliefs of child acceptance will be associated with less pain-related functional disability and better school functioning. Given the lack of correlation between child pain acceptance and pain ratings,[22] we anticipated a similar relationship for parents.

Method

Participants

All patients 8–17 years of age and an identified parent who underwent a multidisciplinary pain evaluation at a tertiary pain clinic in a large, urban northeast US pediatric hospital between June 2009 and August 2010 were eligible for the study. Altogether 202 of the 265 families approached consented to participate (76.2% participation rate). Primary reasons for refusal were lack of interest or time. Among them, 195 parent-child dyads had sufficient data for inclusion in the current analyses, resulting in a 96.5% completion rate. Children were predominantly Caucasian (92.3%) and female (85.6%), consistent with the demographics of this tertiary care clinic. The mean child age was 13.7 years ($SD = 2.3$). Participating parents were predominantly mothers (92%). Race and age for the parent was not collected. Physician-assigned pain diagnoses for patients included: musculoskeletal pain (34%), neuropathic pain (e.g., complex regional pain syndrome (CRPS) 32%), abdominal pain (12%), back pain (11%), gynecological or genitourinary pain (5%), headache (3%), and other pain (3% e.g., chest pain). Length of time since onset of pain ranged from 1 to 202 months, with median duration of 14 months with 8% experiencing pain symptoms for less than 3 months prior to this clinic visit. The majority of parents were married (82%) and many were well-educated (i.e., college graduate or higher: 56.8% for mothers, 53.5% for fathers). Family socioeconomic status (SES) based on the four-factor index of social status

[16] ranged from 12 (laborer) to 66 (business owner; professional), with a mean of 45 ($SD = 12$).

Participants: One month stability

Of the 195 participants, the first 146 parents and children enrolled were contacted four weeks after their initial evaluation at the pain clinic and 108 (74%) returned follow-up measures. Among the 38 who did not follow-up, reasons for non-participation included: did not respond after repeated attempts at contact ($n = 21$), could not be reached ($n = 5$; phone disconnected, no voice mail), indicated they would return follow-up forms and did not ($n = 12$). No significant differences were found between families who completed follow-up interviews and those who did not on child age, child gender, parent marital status, SES, child duration of pain, and child pain level (current, lowest, highest, average), and CPAQ-P scores at the initial evaluation.

Measures

Basic demographic (e.g., age, gender) and medical information (e.g., diagnosis assigned by the evaluating pain physician) was collected from patient charts.

Acceptance—The Chronic Pain Acceptance Questionnaire, Parent report (CPAQ-P) is a modified version of the validated Chronic Pain Acceptance Questionnaire (CPAQ) [26]. The CPAQ is a 20-item measure consisting of two subscales: activity engagement (11 items) and pain willingness (9 items). Activity engagement reflects the degree of participation in regular daily activities in the presence of pain (e.g., “My life is going well, even though I have chronic pain”). Pain willingness reflects the absence of attempts to avoid or control pain (e.g., “I avoid putting myself in situations where my pain might increase” – reverse keyed). Previous research supports the internal consistency, factor structure, and validity of the CPAQ [26, 40]. To create a parent version of this measure, we retained the response format of the adult version of 0 = “*never true*” to 6 = “*always true*”. Each item was modified to reflect the parents’ perspective with some items also slightly simplified or clarified. For example item 1 “I am getting on with the business of living no matter what my pain level is” was changed to “My child is getting on with life no matter what the pain level is” and item 7 (reverse coded) “I need to concentrate on getting rid of my pain” was changed to “My child needs to concentrate on getting rid of his/her pain” (see Table 1 for all items).

Pain catastrophizing—The Pain Catastrophizing Scale (PCS-P) [9, 14] assesses parental negative thinking associated with their child’s pain. It is comprised of 13 items rated on a 5-point scale. Items are summed and divided by the number of items to derive a mean total score. Higher scores indicated higher levels of catastrophic thinking. The PCS-P has strong psychometric properties [9, 14] and demonstrated validity with high levels of parent catastrophic thinking about their child’s pain associated with greater emotional distress and a tendency to restrict their child’s activities [3]. Internal consistency of the Total Score in this sample is .89.

Pain-related fear—The Fear of Pain Questionnaire (FOPQ-P) [33] assesses parent perceptions of child pain-related fears. Specific items include: “My child tries to avoid activities that cause pain” and “My child’s feelings of pain are scary to him/her.” It is comprised of 23 items rated on a 5-point scale from 0 = strongly disagree to 4 = strongly agree. Items are summed to derive a total score. Higher scores indicate high levels of pain-related fear. Construct validity is supported with significant relations between the FOPQ-P and parent catastrophizing (PCS-P) and criterion-related validity with associations between the FOPQ-P and child healthcare utilization (physician visits, emergency room visits) [33]. Internal consistency of the Total Score in this sample is .92.

Protective parent responses—The Adult Responses to Child Symptoms (ARCS) [35] assesses parents' responses to their children's pain. The protective subscale was examined in this study and refers to parent behavior such as giving the child special attention and limiting the child's normal activities and responsibilities. The stem for each item is "When your child has pain, how often do you ...?" Sample items include: "bring your child special treats or little gifts," and "let your child stay home from school." Responses are rated on a 5-point scale ranging from "never" (0) to "always" (4), and subscale scores are computed by calculating the mean ratings for items on the subscale. Higher scores equate to more frequent use of a protective response. Validity data indicate that the ARCS protect subscale is associated with higher levels of parent distress [31] and poor child pain-related outcomes [18, 32]. Alpha reliability for the protect subscale in the current sample was .84.

Child Functioning

Pain—During the pain evaluation, children were asked to provide their average pain rating on a standard 11-point numeric rating scale [37] from 0 (no pain) to 10 (most pain possible).

Functional disability—The Functional Disability Inventory (FDI) [41] is a child-completed scale that assesses difficulty in physical and psychosocial functioning due to physical health. The instrument consists of 15 items concerning perceptions of activity limitations during the past two weeks; total scores are computed by summing the items. Higher scores indicate greater disability. The FDI has extensive reliability and validity [7]. This measure was completed at baseline and again at four weeks by the child. Alpha reliability at the evaluation and four weeks later were .91 and .91, respectively.

School functioning—The Pediatric Quality of Life Inventory [36] is a scale that assesses several domains of life function. The 5-item School Functioning subscale was used for these analyses. Extensive reliability and validity data exist for this measure among medically ill and healthy children [36] and children with pain [8]. Alpha reliability for this scale in the current sample was .85.

Procedure

Participant families were recruited during their multidisciplinary pain clinic appointment within a large children's hospital. The study was approved by the hospital's Institutional Review Board. Patients and their parents were approached by a research assistant during their evaluation and were asked to consent/assent to a larger study where these data were collected and also if their responses to clinic measures could be used for research purposes. Four weeks after initial data collection, participant parents and children were contacted and mailed the CPAQ-P to assess measure stability.

Statistical Analyses

Data were entered into SPSS version 18.0. Descriptive statistics examining item skew and kurtosis were conducted to examine underlying assumptions of normality for all variables of interest. Item-total correlations were calculated for the CPAQ-P. Maximum likelihood exploratory factor analysis (EFA) with oblique rotation was conducted initially to determine the factor structure of this measure. Factor loadings were examined and items with primary factor loadings < .32 were removed. Factor analysis was repeated until a solution was generated in which all items loaded adequately on the empirically derived factors.

Consistent with prior research in pediatric psychology [11], confirmatory factor analysis (CFA) was then conducted to test the fit of the derived model for the CPAQ-P. The CFA was conducted with Mplus software [27]. CFA is a type of structural equation modeling

(SEM) that examines the fit between a predetermined factor structure, derived from EFA or prior research, and the sample data. A model was specified that included the items and corresponding factors based on the EFA. Questionnaire items were treated as continuous variables in the CFA, consistent with the Likert-type format of the response options. Full information maximum likelihood estimation (FIML) was employed. Based on recommendations by Bentler and Bonett [1] and Ullman [34], the following statistics were used to evaluate model fit: χ^2 , χ^2/df (<2 acceptable), Comparative Fit Index (CFI; $>.90$ acceptable, $>.95$ excellent), and Root Mean Square Error of Approximation (RMSEA; $<.08$ acceptable, $<.05$ excellent).

Relations with demographic variables and validity of the CPAQ-P were examined with bivariate correlations and one-way ANOVAs. A multiple regression model was tested in SEM in which parent catastrophizing, pain-related fear, protective responses to child pain behavior, child functional disability, school functioning, and pain rating were simultaneously regressed on the two CPAQ-P factors, Activity Engagement and Pain Willingness, in a single model to assess the construct validity of the CPAQ-P. We decided to test these associations in SEM rather than in a regression analysis in SPSS due to the ability in SEM to test for multiple associations simultaneously and to mitigate measurement error. Measure stability and treatment responsivity were examined four weeks after the initial evaluation using paired-sample t-tests and change scores for the CPAQ-P and FDI.

Results

Scale item selection and exploratory factor analysis

Each of the 20 items was examined to determine its contribution to the scale. No items violated assumptions of normality (skew and/or kurtosis >2.0). Next, item-total correlations were conducted, with two items dropped (item 3 “It’s OK for my child to experience pain.” & item 4 “My child would gladly give up important things in life to control this pain better.”) ($r < .30$; criteria outlined by DeVellis [10]). The remaining 18 items were entered into a maximum likelihood factor analysis with oblique rotation. The criterion of eigen values > 1 resulted in an initial four factor solution. One item was promptly dropped (item 5 “It’s not necessary for my child to control their pain in order to handle life better.”) as it did not load above .32 on any of the four factors. Upon re-running the analysis, three factors remained. With only two items on the third factor, we re-ran the model with a forced two-factor criterion. All 17 items loaded on one of the two factors. One item loaded below .32 and was removed (item 11 “My child’s thoughts and feelings about pain must change before (s)he can take important steps in life.”). The factor analysis was run once again with 16 items specifying a two factor structure (see Table 1 for item listing). The two factor structure was consistent with Cattell’s elbow criteria on the scree plot [10] and the number of hypothesized dimensions we proposed. The final 16-item scale had a Cronbach’s alpha of .89. Sample mean for the scale was 50.0 ($SD=16.4$). CPAQ-P total scores were normally distributed across the sample.

The results were consistent with the hypothesized subscales (see Table 1). Factor 1, labeled Activity Engagement contains nine items ($\alpha = .89$). Sample mean for the subscale was 28.5 ($SD=10.4$). Factor 2, labeled Pain Willingness, contains 7 items ($\alpha = .81$). Sample mean for the subscale was 19.4 ($SD = 7.2$). The two factors are intercorrelated, $r = .55$, $p < .01$ (see Table 2).

Confirmatory factor analysis

The two-factor model derived with EFA was tested with structural equation modeling in order to further verify the factor structure and examine the fit of the overall model. The

model provided excellent fit to the data [$\chi^2(103) = 162.13$, $p < .01$; $\chi^2/df = 1.57$; CFI = .96, RMSEA = .05 (90% CI = .04–.07)]. Modification indices were examined to determine whether any changes could be made to the model to improve fit. The modification indices suggested that adding error covariances for several pairs of items (e.g., item 2 with item 8, item 1 with item 2, item 8 with item 9, etc.) and allowing several items to cross-load on both factors (e.g., items 18 and 20) would result in small incremental improvements in model fit. We decided not to include these modifications, however, because we did not believe that they were theoretically or clinically justified and we did not want to alter the factor structure of the measure based on potential idiosyncrasies of the current sample. All factor loadings were significant. See Figure 1 for the final CFA model, including factor loadings.

In order to further assess the appropriateness of the current model, the proposed two-factor solution was compared to an alternative model in which all items loaded on a single factor. The single-factor model resulted in a significant deterioration in model fit when compared to the two-factor model ($\Delta\chi^2(1) = 167.28$, $p < .001$), indicating that the two-factor solution provided significantly better fit to the data.

CPAQ-P and demographic factors

One-way ANOVAs were conducted to examine differences in CPAQ-P scores across categorical demographic factors, pain duration, and pain diagnosis. Given the preponderance of Caucasian patients (92%) we did not examine race or ethnicity. As was expected, no significant differences were detected across child gender, child age, parent marital status, pain duration, or pain diagnosis. Socioeconomic status (SES) as measured with the Hollingshead Index was modestly associated with CPAQ-P scores scale indicating that higher SES is related to greater parent acceptance of child pain, $r = .17$, $p < .05$.

CPAQ-P construct validity

Correlation analyses were conducted to examine bivariate relations between the CPAQ-P, parent factors, and child factors and are detailed in Table 2. All correlations were in the hypothesized direction. A multiple regression model was tested in SEM in which parent catastrophizing, pain-related fear, protective responses to child pain behavior, child functional disability, school functioning, and pain rating were simultaneously regressed on the two CPAQ-P factors, Activity Engagement and Pain Willingness, in a single model. The fit for this multiple regression model was adequate [$\chi^2(187) = 338.14$, $p < .01$; $\chi^2/df = 1.81$; CFI = .92, RMSEA = .06 (90% CI = .05–.08)]. Regression coefficients are displayed in Table 3. For parent variables, the cognitive constructs of pain catastrophizing and pain-related fear were more strongly associated with low levels of Pain Willingness whereas protective behaviors were more associated with low levels of Activity Engagement. For child functioning, more pain, less functional disability and better school functioning were significantly associated with Activity Engagement, but were minimally related to Pain Willingness.

CPAQ-P stability

Paired sample T-tests were conducted to examine stability of scores from evaluation to one month follow-up and are detailed in Table 4. One month stability estimates were acceptable ($\alpha = .72$). There was a significant decrease in CPAQ-P scores from evaluation to one month follow-up for the Total scale score and Pain Willingness subscale. We also examined whether reductions in disability were associated with an increase in pain acceptance. Decreases in functional disability were observed and were significantly associated with concomitant increases in CPAQ-P scores ($r = -.39$).

Discussion

The primary aim of this study was to develop and validate the Chronic Pain Acceptance Questionnaire, parent report (CPAQ-P). Through exploratory and confirmatory factor analytic approaches a two-factor structure consisting of Activity Engagement and Pain Willingness emerged, mirroring results found for the adult and adolescent measures with slight revision. All items hypothesized to be consistent with Activity Engagement and Pain Willingness loaded on the appropriate factor, but four items suffered from either low item-total correlations or low factor loadings and were omitted from the measure, resulting in a 16-item questionnaire as compared to the 20-item adult and adolescent self-report versions. With these slight modifications, the CPAQ-P emerged as an internally consistent, stable, and preliminarily valid measure of parent beliefs about child acceptance of pain.

Internal consistency estimates for the total score and subscales were strong (.81 to .89) and scores were consistent across age, gender, pain duration, diagnosis, and parent marital status. Although there was a small correlation between CPAQ-P and higher socioeconomic standing the implications of this finding are unclear and further research is needed to determine if this finding is replicable or clinically meaningful. One month stability estimates of the CPAQ-P suggest modest increases in parent acceptance one month after participation in the multidisciplinary pain clinic evaluation for their child's pain. Given that patients typically receive a treatment plan at the conclusion of the evaluation and have likely been involved in pain treatment interventions in the interim, it is not surprising to see an increase in acceptance scores. This is further supported with the finding that decreases in child functional disability were associated with increases in parent acceptance scores. These findings point to the potential of the CPAQ-P to be sensitive to changes in relation to treatment.

Results provide support for the construct validity of the CPAQ-P with differential findings across the Activity Engagement and Pain Willingness subscales. These two dimensions were differentially associated with important aspects of parent beliefs and behaviors in relation to their child with pain and their child's own functioning. Recent cluster analyses conducted with the adult CPAQ demonstrate support for these two subscales behaving independent of one another. Beyond two groups who scored either high or low on both subscales, Vowles and colleagues [40] identified a subgroup of patients who report engaging in daily activities (high Activity Engagement scores) in concert with a strong need for pain reduction (low Pain Willingness scores). Distinctions like these have important clinical implications wherein individuals with this profile could potentially benefit from more focused efforts on enhancing willingness to experience pain themselves or in others, rather than on increasing daily activities. The findings in the current study are consistent with these patterns wherein child functional disability was found to be unrelated to Pain Willingness, but rather associated with Activity Engagement, suggesting that child functionality is not dependent on the parent's willingness to see their child in pain but instead is linked with a parent's tendency to believe participation in activities in the face of pain is important. In a similar vein, both parent pain catastrophizing and pain-related fear were strongly associated with Pain Willingness, while catastrophizing was unrelated to Activity Engagement and pain-related fear was much more modestly related to this construct. This distinction likely reflects the tight link between negative and fearful evaluations of pain and defensive or avoidant behavior and provides support for the construct validity of the Pain Willingness subscale. Specifically, the less parents exhibit negative thinking and anxiety related to their child's pain, the less likely they are to believe that efforts to avoid or control the pain their child experiences are warranted.

As anticipated, the relationship between child pain and parent beliefs about child acceptance of pain was negligible for Pain Willingness. This is consistent with previous findings examining relations between acceptance and pain severity [22] and suggests that the severity of a child's pain does not necessarily directly relate to whether a parent is willing to believe that their child's pain experience is acceptable. This has clear clinical implications wherein the level of pain does not necessarily predict the degree of suffering the child or in this case the parent experiences.

The results of this study must be viewed in light of its limitations. First, the parents in this sample were almost all mothers as well as Caucasian. While this limitation is reflective of the majority of pediatric pain research [2, 12] with an effort to recruit fathers as well as ethnic minorities for research in this much needed area, the generalizability of the results are limited. It would be important for future research to assess whether parent beliefs about child acceptance of pain differentiates across mothers and fathers as well as across different racial and ethnic identities as recent research has discovered differences in parent catastrophizing [15]. Additionally, the maximum likelihood factor analysis initially resulted in a four factor solution and was subsequently refined to a two subscale measure. Although this solution best fit the data, it is possible that other possible solutions could be derived with other samples and should be explored in future research. It is difficult to distinctly separate processes of parent acceptance from parent beliefs of child acceptance. In approaching the parent adaptation of the CPAQ, we framed items such that parents were endorsing their acceptance beliefs regarding their child's participation in routine daily activities (Activity Engagement) and willingness to allow pain to be a part of their child's life (Pain Willingness), although the findings in this study support the construct validity of this measure, it may be that having the items specifically reflect parent behaviors would be a better means of assessing this construct. Further refinement of the items in this measure is potentially warranted and it is important to assess parent beliefs along with parent behavior to best capture the influence of the social context of parents.

There are multiple implications from these findings for future research among parents of children and adolescents with chronic pain. Future research may be wise to assess parent beliefs about child acceptance of pain in order to capture how this construct may contribute to children's outcomes and determine its importance as an additional intervention target. While acceptance-based approaches are becoming more prevalent in the treatment of chronic pain, it is still an emerging treatment modality [23, 42], in which continued and ongoing treatment development and research efforts are warranted. Future research is needed examining how parent acceptance relates to parent behavior beyond protective responses. Using the Parent Psychological Flexibility Questionnaire, which assesses parent behavioral responses that encompass the therapeutic tenets of Acceptance and Commitment Therapy (e.g., acceptance, present-focused attention, values-based action) [21] in conjunction with the CPAQ-P would allow researchers and clinicians to examine how parent beliefs about child acceptance of pain relate to a wider array of parenting behaviors. In summary, this study not only provides a means of assessing an understudied construct among parents of children and adolescents with chronic pain, the results demonstrate that parent beliefs about child acceptance of pain is associated with more positive psychological outcomes in children.

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Figure 1.
Factor Structure of the CPAQ-P.

Table 1**Summary of Factor Loadings for CPAQ-P**

Item	Activity Engagement	Pain Willingness
9. My child leads a full life even though (s)he has chronic pain.	.90	
6. Although things have changed, my child is living a normal life despite chronic pain.	.85	
2. My child's life is going well, even though (s)he has chronic pain.	.81	
1. My child is getting on with life no matter what the level of pain is.	.78	
12. Despite the pain, my child is now sticking to a certain plan in life.	.68	
15. When my child's pain increases, (s)he can still take care of responsibilities.	.64	
8. There are many activities my child does when feeling pain.	.62	
19. It is a relief to realize that my child does not have to change their pain to get on with living life.	.46	
10. Controlling pain is less important than other goals in my child's life.	.42	
14. Before my child can make any serious plans, (s)he has to get some control over their pain.		.71
13. Keeping my child's pain level under control takes first priority whenever (s)he is doing something.		.66
18. My child's worries and fears about what pain will do to him/her are true.		.64
7. My child needs to concentrate on getting rid of his/her pain.		.50
20. My child has to struggle to do things when (s)he has pain.		.50
17. My child avoids putting themselves in situations where pain might increase.		.49
16. My child will have better control over life if (s)he can control negative thoughts about pain.		.41
Eigenvalue	5.9	1.4
% Variance	36.7%	8.8%

Exploratory factor analysis was performed using a maximum-likelihood procedure specifying a 2-factor solution and oblique rotation. Only factor loadings > .31 are presented. Items 3,4,5, and 11 were removed due to low item-total correlation and loadings.

Table 2

Intercorrelations, means, and standard deviations for the CPAQ-P, parent measures, and child measures

Variable	1	2	3	4	5	6	7	8	9	M	SD
1. Total score	---	.93**	.80**	-.42**	-.77**	-.55**	-.18*	-.48**	.60**	49.96	16.39
2. Activity engagement		---	.53**	-.31**	-.65**	-.50**	-.19**	-.44**	.59**	30.75	11.49
3. Pain willingness			---	-.48**	-.73**	-.46**	-.10	-.39**	.45**	19.11	7.14
<i>Parent Measures</i>											
4. Pain catastrophizing				---	.50**	.40**	.12	.23**	-.27**	39.9	9.9
5. Fear of pain					---	.57**	.16*	.47**	-.53**	43.26	16.76
6. Protective responses						---	.13	.32**	-.50**	1.39	.64
<i>Child Measures</i>											
7. Pain ratings (average)							---	.31**	-.18*	5.86	1.92
8. Functional disability								---	-.38**	22.34	11.93
9. School functioning									---	47.92	23.70

Note.

* $p < 0.05$,

** $p < 0.01$,

Correlations are two-tailed.

Table 3

Parent pain acceptance predicting parent and child factors related to child pain

Variables	Parent Pain Acceptance	
	Activity Engagement	Pain Willingness
<i>Parent</i>		
Pain catastrophizing	.04	-.33 **
Pain-related fear	-.23 **	-.67 **
Protective responses	-.37 **	-.28 **
<i>Child</i>		
Functional disability	-.38 **	-.18
School functioning	.49 **	.18 *
Pain (average)	-.27 **	.08

*Note.**
 $p < 0.05$,**
 $p < 0.01$,

Standardized regression coefficients listed above.

Table 4

One-month Stability Estimates for the CPAQ-P

Scale	Clinic Evaluation		One month follow-up		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>
CPAQ-Parent					
Total Scale	48.8	16.3	51.5	13.8	.72 -2.47*
Activity Engagement	29.9	11.1	30.3	8.9	.68 -.50-
Pain Willingness	18.9	7.3	21.3	6.5	.60 3.88**
Functional Disability Inventory	23.6	11.9	20.2	11.8	.63 3.37**

Note.

* $p < 0.05$,

** $p < 0.01$ (2-tailed)